

Legislative Branch Computer System Plan

2011 Biennium

**A Report to the 61st
Legislature
From the Legislative Branch
Computer System Planning
Council**

October 2008

**Published by
Montana Legislative
Branch**

**State Capitol, Room 110
PO Box 201706
Helena, MT 59620-1706
PHONE: (406) 444-3064
FAX: (406) 444-3036
<http://leg.mt.gov>**

Table of Contents

Introduction	1
1. Information Technology Planning in the Legislative Branch	2
2. The Business of the Legislative Branch	8
3. Current Information Technology Environment	13
4. Short-Term IT Goals and Objectives	31
5. FY 2010-11 Central Information Technology Budget Proposal	37
6. Long-Term Information Technology Issues for the Legislative Branch	41

Appendices

Appendix A: Membership of Advisory Groups	44
Appendix B: Legislative Branch Enterprise Architecture	45
Appendix C: Business Case Analysis Process	66
Appendix D: Security Policy	83

Introduction

The Legislative Branch Computer System Planning Council is pleased to present its 2011 biennium computer system plan for managing the Legislative Branch's substantial investment in Information Technology (IT). This plan will provide direction in using IT resources to ensure the maximum return on this investment while best meeting the needs of the Legislative Branch.

The chapters that follow discuss Information Technology planning in the Legislative Branch, the business of the Legislative Branch, the Branch's current IT environment, and the short-term IT goals and objectives. In addition, the plan presents a proposed Branch IT budget for the 2011 biennium and outlines issues to be addressed in the long term. Questions about the plan may be directed to Susan Fox or Hank Trenk at 406-444-3064 or sfox@mt.gov or htrenk@mt.gov.

1. Information Technology Planning in the Legislative Branch

This chapter provides background information about Information Technology (IT) planning in the Legislative Branch. Topics covered include statutory planning requirements for the Legislative Branch, the IT organizational structure within the Branch, and the Branch IT planning process.

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 computer system planning encompassing broad policy needs, long-term direction for computer 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 computer system plan is:

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

The Legislature created the nine-member Legislative Branch Computer System Planning Council (Planning Council) to develop and maintain a Branch computer system plan. Members of the Planning Council include:

- the Secretary of the Senate or another representative of the Senate designated by the President;

- the Chief Clerk of the House or another representative of the House designated by the Speaker;
- the Sergeants at Arms in the two houses or another representative of each house designated by the presiding officer of the Legislative Administration Committee of that house;
- the Executive Director of the Legislative Services Division (LSD), who chairs the Planning Council;
- the Legislative Auditor;
- the Legislative Fiscal Analyst;
- the Consumer Counsel; and
- a person designated by the Director of the Department of Administration to represent the Department's IT responsibilities, who serves as a nonvoting member.

In developing and maintaining the Branch computer system plan, the Planning Council is required to:

- review existing systems that are candidates for automation;
- review existing automated systems that could be improved or integrated with new applications;
- develop and maintain a description of Branch functions or services that would, through application or improvement of computer technology, provide better service;
- develop and maintain a ranking of needs, considering effectiveness and cost of alternative systems; and
- develop and maintain recommended Branch system standards and standard or custom software and hardware solutions.

By law, the LSD is required to provide technical support to the Planning Council. Statutory duties related to this support role include:

- analyzing existing and alternative systems;
- providing technical solutions and advice;
- apprising the Planning Council on industry developments;
- maintaining a liaison with the Executive Branch; and
- assisting in purchasing of supplies and equipment.

After developing a Branch computer system 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 Planning Council must adopt, as part of the computer system plan, "adequate rules for the use of any information technology resources" and forward them to the Legislative Council for approval.

Legislative Branch IT Planning Structure

The 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 Technical Planning Group, and the Web Team. A description of each group is contained in Chapter 3. The membership of each group is contained in Appendix A.

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.

*The Planning Council
is supported by
several entities
involved in
developing,
implementing, and
maintaining IT
resources within the
Legislative Branch.*

- 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

To comply with its statutory obligations, the Planning Council met four times during the 2007-08 interim. A summary of the meetings follows:

- March meeting. At the organizational meeting in March 2008, members reviewed their statutory duties, adopted operating guidelines, and reviewed the current Legislative Branch IT environment. Dick Clark, the Executive Branch CIO, briefed the Planning Council on Executive Branch IT activities. Members received an update on 2007 IT legislation impacting the Legislative Branch. Specifically, Senate Bill No. 82 changed the preliminary approving authority for adopting rules for adequate use of computers in the Legislative Branch to the Computer System Planning Council. The final approving authority remains with the Legislative Council. Also at this meeting, the Planning Council received an update on the final IT budget adopted by the 2007 Legislature, a review of the IT projects planned for the 2009 biennium, an update on the House and Senate vote system replacement project, and an update on the 2007 Session legislator laptop allowance project.

The Planning Council adopted a process for conducting a Business Case Analysis on all new requests for IT systems.

- May meeting. At the May 2008 meeting, the Planning Council members reviewed a preliminary list of IT projects and budget initiatives for the 2011 biennium and a proposed format for the 2011 Branch computer system plan. Additionally, Planning Council members discussed: 1) how best to satisfy the requirements of 2-17-518, MCA, which requires the Planning Council to recommend adequate rules for the use of computer to the Legislative Council; 2) how and who adopts and who enforces IT policy including security policy for the Branch; 3) an outline of a security program for the Branch; and 4) an enterprise architecture for the Branch. The Planning Council adopted a process for conducting a business case analysis on all new requests for IT systems.
- June meeting. The focus of the June 2008 meeting was on further refinement of the proposed IT projects and initiatives for the 2011 biennium. OLIT staff presented cost estimates for each proposal under discussion. Members provided feedback on the proposals and agreed to advance all proposals to the Legislative Council for its consideration. Also at this meeting, the Planning Council discussed: 1) the contents of the 2011 Branch computer system plan; 2) proposed Branch enterprise architecture; 3) the next steps for the Branch security program; 4) Microsoft Enterprise license agreement; and 5) support for legislator laptops.
- August meeting. The Planning Council wrapped up business in August 2008 with final adoption (with some modifications) of the Branch computer system plan and budget for the

2011 biennium. Members also received an update on replacing the Senate and House vote/agenda systems for the 2009 session. Staff also updated the Planning Council on enterprise architecture developments and next steps for the Branch security program.

- Legislative Council meeting. LSD staff presented the Legislative Branch computer system plan and budget to the Legislative Council in September 2008. The Legislative Council approved the plan and budget as presented.

Minutes of the Planning Council meetings and the Legislative Council meetings can be found on the Legislative Branch website.

2. The Business of the Legislative Branch

This chapter describes the organization of the Legislative Branch and presents the mission of the Branch entities. It also discusses the functions and role played by IT in the Legislature'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 5-2-503, MCA. The principal entities of the Branch are the Senate and House of Representatives (which together compose the Legislature), the LSD, the Legislative Fiscal Division (LFD), and the Legislative Audit Division (LAD).

Missions

The missions of the consolidated Legislative Branch entities are as follows:

- The mission of the **Legislature** is to exercise the legislative power of state government vested in the Legislature by the Montana Constitution.
- The mission of the **Legislative Services Division** is to provide research, reference, legal, technical, information technology, and management and

business support services to the Senate, House, and other divisions of the Legislative Branch in support of effective and efficient operation of the Legislative Branch and to support the mission of the Legislative Council.

- The mission of the **Legislative Fiscal Division** is to provide the Legislature with objective fiscal information and analysis relevant to Montana public policy and budget determination.
- The mission of the **Legislative Audit Division** is to conduct independent audits, as provided by law, and to provide factual and objective information to the legislative and executive managers of the public trust.

Functions

The legislative responsibilities include areas such as lawmaking, appropriation, taxation, oversight of the Executive Branch, and representation of local interests. The primary function of the Legislature, however, is lawmaking, which consists of the consideration 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 services. A description of these functions follows.

Research

The LSD, LFD, and LAD each provide nonpartisan research services to the Legislature. The LSD staff provides draft bills for the legislators and committees. They also provide legal and policy research and analysis, research reports, and a reference library for the Branch. The Legislative Environmental Policy Office, within the LSD, provides research and analysis of environmental issues. The LFD provides research support in matters related to state budgeting. The LAD provides research and analysis on audit issues.

Fiscal Analysis

The LFD provides an independent analysis of the Governor's budget. It also conducts research and analysis of revenue and expenditure trends and provides reports on the impact of economic changes on both enacted and proposed legislation. By performing

fiscal analysis and by assisting legislators in understanding agency budgets, the LFD helps the Legislature make responsible decisions about the collection of state revenue and the subsequent investment of, and allocation to, state government programs. Also, during legislative sessions, LAD assists the Legislature by gathering and analyzing information relating to the fiscal affairs of state government.

Legislation and Policy Development

The LSD, the Senate and House staff, and the LFD provide staff support to the Legislature as it proposes, debates, and makes decisions on legislation. LSD research and legal staff support standing committees and LFD supports the appropriations and finance committees. LSD staff support the data input, introduction, engrossing, enrolling, and codifying of bills. Senate and House staff provide clerical support to committees, support the flow of bills through the Senate and House, and generally support the operation of the Senate and House.

Information Distribution

All legislative divisions participate in the distribution of information to the Legislature and the public.

All legislative divisions participate in the distribution of information to the Legislature and the public. For example, legislative audit reports are available to the public, as are budget analysis, legislative fiscal, and research and interim committee reports. During a session, the Data Distribution Center in the LSD distributes bills, amendments, resolutions, status reports, and journals in printed format to the Legislature and the public. The Legislative Information Office provides information to the public on the legislative process, the status of legislative proceedings, and the daily calendar of events, both directly, through the Internet, and by telephone. The OLIT supports the systems that allow the creation and maintenance of electronic information and that make electronic access to bill status and text possible. The Legal Services Office, the Central Services Office, and the OLIT are responsible for preparing and

distributing the MCA, related rules, journals, annotations, and other documents related to the proceedings of the Legislature.

Oversight

The LAD provides oversight by regularly auditing the functions of state government and gives the Legislature and the public an independent analysis of the effect of laws and rules. These reviews allow the Legislature to analyze whether the Executive Branch complies effectively and efficiently with the laws and policies of the Legislature. In addition, the LAD is required by federal and state law and bonding agents to issue independent audit opinions on the fairness of the financial statements and the results of operations of state government agencies and of state government as a whole. The LAD also investigates reports and allegations of waste, fraud, and abuse in state government. The Legislative Environmental Policy Office serves in an oversight capacity for state government on environmental issues. The LFD is statutorily charged with oversight responsibility for the appropriations process, revenue, and other fiscal policy issues. The LSD has agency monitoring responsibilities and administrative rulemaking review incorporated in support of permanent interim committees.

Business Services

The Central Services Office of the LSD provides purchasing, personnel, and accounting services for the entire Legislative Branch. These services help to efficiently expedite daily business issues and needs of the Branch.

Additional information on the legislative process can be found in [A Legislator's Handbook 2009](#), published by the Montana Legislative Services Division. Also, the publication provides background on the relationship of the process to constituents, the media, other government agencies, and lobbyists. The mission, goals, and objectives documents submitted as part of the biennial budget process are another valuable source of information about the Branch. The mission, goals, and objectives documents and [A Legislator's Handbook 2009](#) can be found on the Legislative Branch website.

The Role and Purpose of Information Technology in the Legislature's Business

The Legislature works with information in order to produce information. In this information age, enhancing the ability to gather, process, and distribute legislative information more quickly and more accurately is a necessity.

Technology is the primary tool used by the Branch to collect, analyze, and disseminate information. Therefore, the Legislature 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 process. The technology planning process established by Title 5, chapter 11, part 4, MCA, helps ensure that the Legislature is making effective decisions about incorporating technology into the legislative process.

The Planning Council has adopted the following purpose statement for information technology in the Legislative Branch:

To support the Montana Legislature and its processes by providing appropriate and reliable tools and services for legislators and staff to effectively perform their constitutional and statutory duties. These tools and services must:

- aid in the efficient collection, analysis, and presentation of complete and accurate information;
- maintain the integrity of the information and preserve it for future use; and
- provide timely and direct access to the information to interested persons, groups, and entities.

There are extraordinary opportunities for applying technology to an organization whose main product is information. The Legislative Branch recognizes this, has invested in and applied technology, and has received significant benefits from that technology.

3. Current Information Technology Environment

This chapter summarizes the current organizational and technical environment that supports IT processes and initiatives in the Branch. Also included in this chapter are the recent accomplishments that have been made by IT to improve the legislative processes, an analysis of the maturity level of technology used by the Branch, a discussion of the significant IT risks that the Branch is facing, an assessment of best practices, and how the Branch uses IT outsourcing resources.

Organization

In addition to a computer system 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 Computer System Planning Council

Mission: To develop and maintain a Legislative Branch Computer System Plan in accordance with 5-11-403, MCA.

Legislative Council

Mission (as it relates to IT):

To serve as the Legislature's approving authority for the Legislative Branch computer system plan in accordance with 5-11-405, MCA.

Executive Director, Legislative Services Division

Mission: To provide leadership to the Legislative Branch Computer System Planning Council and provide technical staff support to the Planning Council.

Technical Planning Group (TPG)

Mission: To assist the LSD Executive Director and the Office of Legislative Information Technology staff in providing technical planning support to the Legislative Branch Computer System Planning Council.

This group provides advice and guidance to OLIT, legislative division directors, and the Planning Council to ensure that plan goals are achievable, that everyday needs are met, and that significant IT issues are addressed. It includes staff responsible for IT services from within each division.

Web Team

Mission: To be responsible for overall management and oversight of the Branch website.

In response to the growing importance of the Internet as a tool for providing legislative information to the public, the division directors in December 2001 adopted Branchwide web guidelines and designated a group made up of legislative staff to oversee management of the content and the “look and feel” of the website. These guidelines were updated and adopted by the directors as internal policy in March 2008. The Legislative Web Team is made up of members from each permanent legislative division, as well as representation specifically from the Office of Legislative Information Technology and the Legislative Information Office. The chair is elected by, and serves at the pleasure of, the team. The current chair is the Legislative Information Officer.

Office of Legislative Information Technology

Mission: To implement the computer system plan established by the Legislative Branch Computer System Planning Council and adopted by the Legislative Council.

The OLIT is responsible for developing, implementing, and maintaining an IT infrastructure that meets the business needs of the Legislative Branch in accordance with the computer system plan. The OLIT is organized into three sections: the Computer Systems Section, the Network Support Section, and the Architecture and Engineering Section. The Computer Systems Section develops and maintains computer systems, such as the Legislative Automated Workflow System (LAWS). The Network Support Section provides day-to-day operational support for the computing platform for the Branch. The Architecture and Engineering Section provides an enterprise architecture and engineers services for any new additions to the computing platform. Also, through this staff, coordination is provided for information services and relationships with outside organizations, such as the general public, lobbyists, and other agencies.

Information Technology Equipment

The paragraphs that follow briefly describe the technology used in the Branch.

Computer Hardware

The Branch has determined that most of its internal computing needs can be met cost-effectively by using microcomputer hardware. Currently (FY 2008-09), there are approximately 380 desktop and laptop personal computers (PCs) in the Branch network. These PCs are connected to Branch file servers.

The Branch will continue to rely on the state's midtier services (operated by the Department of Administration) for large statewide systems, such as the Statewide Accounting, Budgeting, and Human Resources System (SABHRS) and the Montana

Budget Analysis and Reporting System (MBARS). The Department of Administration mainframe is used for a few Branch systems, such as the MCA codification process. The Branch also leases Oracle server services from the Department of Administration for the LAD Comprehensive Annual Financial Report System (CAFRS) and the Legislative Automated Workflow System (LAWS). Web server services are also provided to the Branch by the Department of Administration and the Office of Public Instruction. The Legislative Branch also has some of its own web servers.

Computer Software

The Branch has standardized on a defined set of software. These standards are described in the Branch's Enterprise Architecture which is in Appendix B.

The Branch has developed and supports the following systems: LAWS (Oracle, web, WordPerfect macros), audit reports, audit billing, office macros, publications management, Capitol group, information request, Branch website, MEPA documents, audit hotline, LAD SABHRS, Banner interface, audit management reports, CAFRS/trial balance, legislative messages, checkout board, revenue estimation, budget book development, audio/video streaming, MCA codification, and many smaller systems.

Telecommunications

The Branch uses a local area network (LAN) for internal communication and the SummitNet wide area network, which is provided by the Department of Administration for communication to the rest of State government and the Internet. These networks provides a fast, efficient pathway for data network traffic within the Branch, to other state government agencies, and to the "outside world". The Branch makes significant use of the Internet for contact with the public through this network.

Recent Information Technology Accomplishments

The Branch has made numerous technological achievements over the current biennium. Descriptions of several of the major achievements are listed below.

Branch Security and Disaster Recovery Program

The Branch took several significant steps this biennium to improve its information security and disaster recovery posture. The initial step involved the hiring of an Information Security/Disaster Recovery officer to begin the 2- to 3-year process of establishing viable programs in these areas. On the information security side, the program's development was broken down into five phases. The first phase established a program charter and the development of strong information security policies and procedures. The second phase involves the education and awareness training of all the Legislative Branch employees so that they understand current vulnerabilities and the policies created to address them. The third phase addresses IT architecture enhancements, which have already started to be addressed as the Branch began the process of procuring and installing a firewall solution between the internal Branch network and outside networks. The fourth and fifth phases address management and control and metrics, respectively. Assessment of various security tools to meet the Legislative Branch's needs in these areas is currently underway. On the disaster recovery side, a complete review of the current plans and procedures is planned. After adjustments and updates are accomplished, the Branch plans to practice and further develop the plans to ensure that a state of readiness exists in the unfortunate case of a real disaster.

Branch Enterprise Architecture

The Branch has taken the first steps toward developing an enterprise architecture in order to: 1) document the hardware, software, data, and general business environment of the Branch; 2) provide a roadmap to future technology in the Branch; and 3) achieve

the proper balance between business innovation and technology architecture, Appendix B describes that architecture. The Branch has only taken the first steps; there are still several gaps that need to be filled in in the current architecture. Additionally, this is a living document that will constantly be changing as the IT industry changes and as the Branch sees new opportunities to apply technology.

Replace 130 Laptops

Desktop and laptop PCs normally have a 3- to 4-year life cycle, which means the Branch needs to replace about half of its desktop/laptop PCs every 2 years. This biennium (FY 2008-09) the Branch purchased 130 new laptops to replace aging desktop and laptop PCs. The Branch is slowly replacing desktop PCs with laptops where staff needs to be provided with mobile computing capabilities. Most of the Branch can take advantage of the mobile computing environment (e.g. committee staffers can take their laptops to the committee rooms). This is the major reason why laptops were purchased this biennium instead of desktop PCs.

House and Senate Vote/Agenda Systems Replacement

As part of the plan to replace declining and obsolete systems in the Branch, the House and Senate vote/agenda systems were replaced this biennium. The Branch used the Request for Proposal bid process to select International Roll Call to replace both systems. The total cost for replacing both systems was \$1,030,500. Several improvements were added to the interface between the vote systems and the Branch website so that legislators and the public can be kept more up-to-date on activities in the chambers.

New Storage Area Network and Directory Migration

This biennium (FY 2008-09), the Branch replaced its aging storage area network with newer storage area network technology. Also as part of bringing up the new storage area network, the Branch implemented its own directory tree (separate from the Executive Branch directory tree). This was necessary in order to provide proper

separation of powers from the Executive Branch and also to provide a better level of security.

Expand Audio Streaming and Storage of Committee Minutes

During the 2005 session, the Branch conducted a pilot project where recorded committee minutes were stored on a server and accessible via the Internet. This process replaced the transcribed minutes process for selected committee meetings during the 2005 session. The pilot project was a success, and during the 2005-06 interim, the Branch worked on extending this process so that minutes for all committee meetings during the 2007 session were recorded this way. In addition to saving the minutes for future retrieval, committee hearings were also streamed live to the Internet. During the 2008-09 biennium, the Branch made more improvements to the process so that recording of committee minutes could be started and stopped more accurately. The whole process of streaming and saving committee hearings was made more reliable, and improvements were made to the web page that showed what streams were available at any particular point in time.

Laptops for Legislators

During the 2007 session legislators for the first time were offered an allowance of \$1,500 to purchase a laptop and selected software for legislative use. About 130 legislators used this service and connected up to the wireless or wired guest network in the capitol. This program will be offered again during the 2009 session for new legislators or legislators who previously did not take advantage of this allowance. A budget request will also be submitted for the 2011 session.

Develop Business Case Analysis Process

The Branch has developed and implemented a Business Case Analysis (BCA) process. The purpose of the BCA process is to ensure that new or upgraded technologies are needed, cost effective, not unnecessarily disruptive, planned, assigned appropriate

resources, and documented. See Appendix C for a more detailed description of the BCA process.

Server Room Improvements

The Branch made two major improvements to its server room environment. The Branch shares a server room in the basement of the capitol with the Governor's Office and the Secretary of State. When the Branch first moved into this server room, the Branch was provided with server racks that could not be locked to prevent other users of the server room from accessing Branch equipment. The Branch upgraded the racks in the server room so that they can now be locked. Secondly, because the Branch has put several additional servers in the server room, thus increasing the amount of heat generated, the Branch has had to increase the cooling capacity in the server room by adding additional air conditioning.

Information Technology Maturity

This section describes the IT hardware and software in the Legislative Branch in terms of its maturity as of the publication of this plan (October 2008) and discusses issues related to the hardware and software maturity.

Maturity Table

The following table categorizes the Branch's hardware and software according to maturity level. The categories used are emerging, mature, declining, and obsolete. Emerging technology is technology that is new and typically the latest release or technology that is beginning to gain market share or to start a new trend. Mature technology is fully supported technology, typically a year old or older, but not necessarily the latest release and also is technology that has significant market share and is commonly used by most businesses. Declining technology is technology that has a sunset date (date beyond which it is no longer sold or supported), has limited support,

or has a declining/small market share. Obsolete technology is technology that is past its sunset date, is no longer supported, or for which the company that supports it is going or has gone out of business.

Category	PC*	PC OS**	Desktop Software	Mid-Tier Hardware	Network OS	Major Applications
Emerging	15%	9%	1%	20%	10%	10%
Mature	80%	87%	94%	50%	10%	70%
Declining	4%	1%	5%	30%	80%	20%
Obsolete	1%	1%	0%	0%	0%	0%

* PC – Desktop or Laptop Personal Computer

** OS – Operating System

Maturity Issues

As noted in the table above, the Branch is relatively current on supported releases of software and hardware. However, there is a certain percentage of the IT infrastructure that is in the declining or obsolete categories. Also, the Branch continues to test and in some cases implement emerging technology in the server operating system and web server software areas. Below is a description of the emerging and declining or obsolete technology in the Branch. For the declining or obsolete technology, an assessment of the risk associated with continuing to use the technology is presented.

Emerging Technology

The Branch has been investigating the following emerging technology. If the investigation proves successful, it should result in more efficiency to the Branch and possibly cost savings.

- Server Virtualization

In the past, one server software operating system ran on one hardware server. Virtualization is software and hardware that allows multiple server operating systems to run on one hardware server. This provides for better usage of the hardware. Virtualization also provides the capability to quickly configure a server and place it into service. Virtualization is being used successfully by several IT organization nationwide. The Branch will probably implement virtualization over the next 1 to 2 years.

- Blade Servers

Recent improvements in hardware servers have allowed the entire server (minus the hard drive) to be placed on a small circuit board (blade). Server designers have come up with a Blade Center, which is a device that has the capacity to hold about 10 blade servers. This configuration has the capability to add new servers quickly if additional capacity is needed quickly and it also reduces the amount of space needed in the server rack for new servers. Another benefit of Blade Centers/Servers is that the power needed to run the server(s) is much less than traditional servers. In July of 2008 the Branch brought up its first Blade Center and is working toward putting it online.

- Linux

Linux is an emerging PC and server operating system. It is currently very popular as a server operating system, and within the next few years, it is predicted that it will have a major impact on the market for server operating systems. Linux's strong points are that it is typically cheaper, more stable, and more robust than other operating systems. Potential savings can be achieved in initial purchase price and reduced long-term maintenance. On the downside, network administrators experience a steep learning curve regarding Linux implementation.

In the long run, the benefits of Linux far outweigh the detractions, and thus the Branch sees much potential for Linux. The Branch is currently testing Linux as a web server and eventually wants to implement it as an audio streaming server, a file and print server, and possibly a PC operating system.

- Open Office

Open Office is an office suite similar to Microsoft Office. It offers a word processor, spreadsheet, database, and presentation package. It reads and writes Microsoft Office documents and it can be downloaded and used free of charge. It can perform 90% of the functionality offered by Microsoft Office. The Branch is investigating this software to determine if it can be used to replace Microsoft Office and thus reduce the upgrade costs associated with that product.

- Apache/MySQL/PHP

For several years, Apache has been the most used web server software on the Internet and is open source software. MySQL is also an emerging open source database package. PHP is an emerging open source web serve programming language. Apache, MySQL and PHP all run on multiple operating systems and thus offer flexibility from that standpoint. The Branch continues to test and in some cases implement pieces of these software packages.

Declining or Obsolete Technology

- Legislative Audit Division SABHRS

The Executive Branch uses PeopleSoft software for SABHRS. PeopleSoft was recently purchased by Oracle. Oracle already has and markets a financial and human resources software system similar to PeopleSoft. Even though Oracle says that it will support

PeopleSoft for some time, there is speculation that PeopleSoft was purchased to put it out of business and capture its market.

The Legislative Branch has a system called Legislative Audit Division SABHRS (LAD SABHRS) that was developed by the Legislative Branch over 2 bienniums. This system is used by the LAD in the audits of state agencies. The system is highly reliant on PeopleSoft software. If the PeopleSoft system is replaced, it will require a lot of work for the Legislative Branch to replace the functionality in the current system.

In discussions with the Executive Branch about this issue, the Executive Branch says that it thinks the PeopleSoft system will still be available for several more years because there are several organizations nationwide that have PeopleSoft and they have refused to change to another product regardless of the pressure put on them by Oracle. The Branch will continue to monitor this situation and take the appropriate action when necessary.

- Mainframe TextDBMS System

The Branch uses a mainframe system called TextDBMS to update and maintain the MCA. The Branch has extensively used the programming language for TextDBMS to enhance the process used. The Branch has a significant investment in this system, which it has used for the last 19 years. The system currently meets all of the needs of the Branch and requires very little maintenance. However, the original owners of TextDBMS are no longer involved in the legislative market. About 10 years ago, the original owner sold the rights to TextDBMS to a small company (two to three employees), which the Branch currently contracts with for support. Additionally, since mainframes are a declining technology, it becomes more and more difficult to hire mainframe programmers. This system is in the declining stage and is being monitored for potential replacement. The estimated cost of replacement is approximately \$2,000,000 to \$3,000,000 in current dollars.

- LAWS Web Pages

The Branch has developed a system to process and track legislative bills as they move through the Legislature. This system is called the Legislative Automated Workflow System or LAWS and was originally developed in 1997-98. LAWS has a web interface to all of its data. Since the LAWS web interface was developed in 1997, the Branch website has been redesigned and improved significantly. Also since 1997, web technology has moved forward significantly. These two factors combined have made the LAWS web interface somewhat obsolete and not compatible with the rest of the Branch website. At some point in the near future, the web interface to LAWS will need redesigning to bring it up to date with current web technology and the rest of the Branch website.

- WordPerfect and WordPerfect Macros

The bills, journal, and committee minutes processing part of the LAWS and also some of the Branch's office processes are written in WordPerfect macros. The word processing part of the LAWS system was developed in 1997-98 using the WordPerfect macro language. The Branch upgraded to the release 12 of WordPerfect during the 2006-07 biennium and is currently on a supported release of WordPerfect. WordPerfect has a small percentage of the market share for word processors. WordPerfect was recently sold to a private investor and thus the company that owns WordPerfect is no longer publicly traded. Thus it is difficult to determine the financial status of the company—i.e., whether or not they are on the verge of going out of business. The Branch needs to continually evaluate this product and the company's performance in order to be prepared to replace it if necessary. Replacing all of the WordPerfect macros in the Branch and retraining staff on a new word processing package are estimated to cost approximately \$1,000,000 to \$2,000,000 and would require at least 2 years of effort.

- Lotus Approach

The Branch uses Lotus Approach for accessing and manipulating SABHRS data and for tracking financial aspects of fiscal notes. Lotus Approach is a low-end database package that runs on the PC. Lotus Approach has been dropped from the list of supported Executive Branch software. However, the company (IBM) that sells and supports Lotus Approach has no plans to phase it out. The Branch requires very little support for Lotus Approach. The Branch has discontinued new development in Lotus Approach but will continue to use and support the current systems that are using it. The Branch will consider converting these Lotus Approach applications to supported software sometime in the next 4 to 6 years.

- Microsoft Office Suite (MS Office)

The MS Office Suite is a word processing, spreadsheet, presentation, and database package that runs on the PC. MS Office is the current Executive Branch and Legislative Branch standard in these areas. The Branch uses MS Office extensively for both word processing and spreadsheet applications. Additionally, SABHRS and MBARS require MS Word and Excel. The Branch is highly reliant on SABHRS and MBARS. During the 2006-07 biennium, the Branch upgraded to MS Office 2003. Although there wasn't much additional functionality in MS Office 2003 that the Branch needed, the Branch felt compelled to upgrade to be able to communicate effectively with SABHRS and MBARS.

Because Microsoft has about 95% of the market share of the Office Suite business, it can set the purchase price almost as high as it wants. Based on the high price and the fact that there is little new functionality in the MS Office 2007 suite that is necessary for the Branch to continue to conduct its business, the Branch needs to continue to monitor the status of this technology and consider whether and when it needs to be replaced.

- Montana Budget Analysis and Reporting System (MBARS)

MBARS is a system used by both the Executive and Legislative Branches. It is used before the legislative session to prepare the executive budget recommendations. During the session, the system is used to track budget decisions as the Legislature establishes appropriations policy. Upon completion of the session, the system is used to load the state accounting system with legislatively approved budget information. MBARS was developed for the state by a private contractor in 1997-98. It was first used for the 1999 legislative session. The vendor that supports MBARS has indicated that the software platform used to develop the system is difficult to support because the tools are no longer current technology and thus it is difficult to find people knowledgeable in their use. For this reason, both the Executive and Legislative Branches need to monitor the status of this system and determine when it is appropriate to replace it. It is estimated that a system with similar functionality would cost approximately \$3,000,000.

- Desktop Operating System

The Branch currently uses Microsoft Windows XP as its desktop operating system (OS). Microsoft released the next upgrade to Windows XP in January of 2007. This OS was called MS Vista. Not very many organizations have implemented Vista. Three of the main reasons for this are: 1) it is very costly to upgrade to it because of increased hardware; 2) there is little new functionality that is of benefit; and 3) much of the current software that runs on Windows XP will not run on Vista. Some industry analysts are saying that the desktop OS market is a mature market and thus customers do not see a need to upgrade their desktop OS as quickly as they have in the past. The Branch plans to stay on Windows XP through the 2011 legislative session and will make a decision after that on the desktop OS to upgrade/convert to at that point. Options are Windows, Linux, or Apple.

- Network Operating System

The Branch currently uses Novell Netware as its network operating system. Novell has indicated that it intends to phase out Netware within the next 2 to 4 years. Novell has provided a migration path for Netware users to their new product, SuSe Linux Open Enterprise Server. The Branch plans to upgrade to SuSe Linux Open Enterprise Server during the 2010-11 biennium.

Risk Factors

The Branch faces two major risks in carrying out its IT strategy: 1) recruitment and retention of skilled IT personnel; and 2) security and disaster recovery preparedness.

The Branch faces two major risks in carrying out its IT strategy: recruitment and retention of skilled IT personnel and security and disaster recovery preparedness.

Recruitment and Retention of Skilled IT Personnel

The Branch has made a significant effort to retain IT staff by conducting market surveys and adjusting IT staff pay accordingly. Since these adjustments have been implemented, the turnover rate has slowed considerably.

The recruitment problem now seems to be centered around the lack of interest in the IT profession. Enrollment in IT curriculum at colleges is down nationwide. If this trend continues, the Branch could once again face a recruitment problem.

Security and Disaster Recovery Preparedness

During the current biennium, the Branch hired a Security and Disaster Recovery officer. This employee began to help the Branch move forward with its security and disaster recovery programs. However, it takes 2 to 3 years to get a security program to the point where the organization starts to feel more secure. The Branch is only in the early stages of implementing security, yet the threat of a security breach continues to increase as time goes by. Next biennium, the Branch may have a security assessment done by an outside source in order to give the Branch an idea of how far it has come with security and how far and what steps need improvement. Also, the Branch needs to continually practice and further develop the disaster recovery plan in order to ensure a state of readiness exists. This has been difficult at times because of other priorities. Although the Branch is beginning to address the security and disaster recovery issues, there is still more to do.

Best Practices Assessment

The Legislative Branch is a member of the National Association of Legislative Information Technology (NALIT), a group consisting of IT professionals from each state legislature. NALIT's purpose is to share knowledge on how best to apply IT to the legislative process. Based on information collected by NALIT on the structure and operation of IT agencies in state legislatures, Montana has achieved a significant degree of centralization of IT systems and functions. Compared to other states that have separate systems and staff for each chamber, the Montana Legislature has an integrated bills processing and status system; one data network supported by centralized staff; and a centralized systems development staff. Not only is this level of centralization best practice, but it also enables the Branch to make best use of its limited resources, provides a high degree of efficiency in delivery of services, and ensures that systems are developed and maintained from a Branch perspective.

The Branch also implemented three other best practices this biennium (FY 2008-09). They are: 1) enterprise architecture; 2) business case analysis, and 3) help desk. The enterprise architecture is explained in Appendix B and the business case analysis process is explained in Appendix C. Although the Branch has had an informal help desk for years, it was decided to formalize the help desk this biennium. A help desk is a phone number or e-mail address that a person needing help with an IT problem can call or send an e-mail to in order to receive help. By formalizing the help desk, IT now ensures that requests for help are recorded and responded to in a timely manner. The Branch also developed a job description for a help desk technician and hired a person into that position.

In-House Resources and Outsourcing

The Legislative Branch uses internal IT staff for daily operations and maintenance and for minor enhancements to IT systems and infrastructure. 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. This outsourcing strategy fits well with the Legislature's 2-year business cycle, which allows a 1-year window between regular sessions to make major enhancements. 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.

4. Short-Term IT Goals and Objectives

The following are the IT goals for the Legislative Branch for the 2011 biennium. Following each goal is a list of Branch functions that are supported by the goal. (See Chapter 2 for a description of Branch functions.) Also, after each goal is a list of objectives that must be met to achieve the goal.

Goal # 1: Maintain the Operational Status of the Current IT Environment Within the Legislative Branch		
Supported Branch Function(s): Research, Fiscal Analysis, Legislation and Policy Development, Information Distribution, Oversight, Business Services		
Objective(s)	Timeframe	Measure
Objective # 1 Replace PCs, servers, and other peripherals on a regular basis to keep current with technology.	Ongoing.	Printers, PCs, and servers are supported by the latest releases of software and are not failing excessively because of age. The Branch currently has a 4-year replacement cycle for printers and PCs and a 3-year replacement cycle for laptops and servers.
Objective # 2 Purchase maintenance contracts (or ensure that warranties are in place) on printers, PCs, and servers.	Beginning of each FY and ongoing throughout the FY.	Maintenance contracts or warranties are in place.
Objective # 3 Keep IT staff trained and up to date on latest releases of supported technology.	Ongoing.	IT employees receive at least 5 days of training each year.
Objective # 4 Contract with Information Technology Services Division (ITSD) for network infrastructure.	Beginning of each FY and ongoing throughout the FY.	Branch workstations are able to communicate with servers (for which they are allowed access) located anywhere on SummitNet and the Internet.

Goal # 1: Maintain the Operational Status of the Current IT Environment Within the Legislative Branch		
Supported Branch Function(s): Research, Fiscal Analysis, Legislation and Policy Development, Information Distribution, Oversight, Business Services		
Objective # 5 Contract with ITSD and OPI for web services for part of the biennium (the Branch plans to continue to move web services off of the ITSD and OPI servers and onto its own internal web servers).	Beginning of the first FY and ongoing throughout the FY.	The public, state agencies, and Branch personnel are able to access data from the Branch website.
Objective # 6 Contract with ITSD for Oracle database services.	Beginning of each FY and ongoing through the FY.	The public, state agencies, and Branch personnel are able to access data from the Branch Oracle database.
Objective # 7 Continue to upgrade to supported releases of off-the-shelf software.	Ongoing throughout each FY.	Printers, PCs, and servers are on currently supported software.
Objective # 8 Supplement IT staff by contracting with outside vendors for LAWS support, network support, and LAD SABHRS support.	Ongoing throughout each FY.	Current IT staff is not accruing excessive overtime, and customer service is adequate.
Objective # 9 Supplement IT staff by hiring interns from local colleges.	Ongoing throughout each FY.	Current IT staff is not accruing excessive overtime, and customer service is adequate.
Objective # 10 Hire a systems analyst or contract with an outside vendor to document LFD business processes and provide better support for LFD.	Beginning of the first FY and ongoing throughout the biennium.	Position is filled, LFD is satisfied with central IT support, and LFD processes are properly documented and understood by central IT staff.
Objective # 11 Ensure that currently supported applications continue to function adequately and add minor enhancements to them.	Ongoing throughout each FY.	Current IT staff is not accruing excessive overtime, and customer service is adequate.

Goal # 1: Maintain the Operational Status of the Current IT Environment Within the Legislative Branch

Supported Branch Function(s): Research, Fiscal Analysis, Legislation and Policy Development, Information Distribution, Oversight, Business Services

<p>Objective # 12 Continue to support connection of legislators' personally owned laptops to a high-speed Internet connection and to wireless for the 2011 session. Continue to provide limited support for legislator laptop technology needs for the 2011 session.</p>	<p>2011 legislative session.</p>	<p>All legislators who bring or purchase a laptop (through the legislator technology allowance) meeting certain requirements are given adequate access to the Internet in the Capitol building. Legislators have adequate support for their laptops for the 2011 session.</p>
<p>Objective # 13 Contract with ITSD for support of the PeopleSoft portion of LAD SABHRS.</p>	<p>Ongoing throughout each FY.</p>	<p>LAD is able to use LAD SABHRS to perform effective audits.</p>
<p>Objective # 14 Purchase hardware and software to support the 2010 reapportionment project. Provide IT support for the 2010 reapportionment project.</p>	<p>Ongoing throughout each FY.</p>	<p>Adequate hardware and software is purchased and adequate support is provided to accomplish the reapportionment project.</p>
<p>Objective # 15 Contract with ITSD for management of the Branch firewalls.</p>	<p>Ongoing throughout each FY.</p>	<p>Branch firewalls are managed well enough to prevent security breaches, which are preventable through proper firewall management.</p>
<p>Objective # 16 Contract with vendor to maintain House and Senate vote/agenda systems.</p>	<p>Ongoing throughout each FY.</p>	<p>Vote/agenda systems remain operational 99% of the time.</p>

Goal # 2: Expand and Improve Electronic Access to Information About the Branch and Information Produced by the Branch		
Supported Branch Function(s): Information Distribution		
Objective(s)	Timeframe	Measure
Objective # 1 Make improvements to the live and archived recordings/streams so that the public and staff can more easily find the recording they are looking for. Develop a long-term archiving strategy. Offer more live streaming video of the House and Senate session proceedings.	2010-11 interim and 2011 legislative session.	The web pages are improved. A long-term archiving strategy is put in place. More video streams are offered.
Objective # 2 Bring more web server services in-house for better control and customization.	2011 biennium.	Branch web environment is entirely controlled by Branch staff.
Objective # 3 Continue to keep staff trained on the latest ways to use web technology to the advantage of the Branch.	Ongoing.	Each employee whose job duties involve web technology receives at least 3 days of web training each year.
Objective # 4 Continue to identify information within the Branch that would be of value to the public, and make every effort to put that information on the Branch website.	Ongoing.	Document results.
Objective # 5 Continue to organize and make improvements to the Branch website so that the public can more easily find the information they are looking for.	Ongoing	Surveys of the public indicate that information on the website is available and generally where they would look for it to be.

Goal # 3: Ensure That the Mission-Critical Applications Are Protected and Recoverable		
Supported Branch Function(s): Research, Fiscal Analysis, Legislation and Policy Development, Information Distribution, Oversight, Business Services		
Objective(s)	Timeframe	Measure
Objective # 1 Purchase a replacement disaster recovery printer, PCs, and server.	FY 2011.	Printers, PCs, server, and other IT infrastructure necessary for recovery are purchased and in place.
Objective # 2 Contract for a security and disaster recovery assessment.	FY 2010-11.	Assessment is completed.

Goal # 3: Ensure That the Mission-Critical Applications Are Protected and Recoverable		
Supported Branch Function(s): Research, Fiscal Analysis, Legislation and Policy Development, Information Distribution, Oversight, Business Services		
Objective # 3 Continue to work on improvements to the security and disaster recovery programs.	FY 2010-11.	Disaster recovery plan is tested at least once. Adequate security policy is implemented and/or reviewed. Security and disaster recovery education and awareness training is conducted. A penetration test is performed.
Objective # 4 Participate on statewide disaster recovery, business continuity, and security committees.	Ongoing.	Meeting attendance.
Objective # 5 Continue to make improvements to server room to make it more secure and environmentally sound and/or move to another certified data center.	Ongoing.	Server room is secure and environmentally sound.

Goal # 4: Provide Efficient Interfaces to Enterprise Systems to Allow for Branch Oversight and Analysis		
Supported Branch Function(s): Oversight and Fiscal Analysis		
Objective(s)	Timeframe	Measure
Objective # 1 Continue to work with Executive Branch agencies to gain access to revenue, HR, and other data necessary to perform the fiscal and auditing oversight functions of the Branch.	Ongoing throughout FY 2010-11.	Executive Branch data is made available to the Legislative Branch.
Objective # 2 Integrate the various Branch calendar and notification systems.	Ongoing throughout FY 2010-11.	Calendars and notification systems are more easily updated and kept up to date.

Goal # 5: Continue to help legislators be more effective at their job by applying automation.		
Supported Branch Function(s): Legislation and Policy Development		
Objective(s)	Timeframe	Measure
Objective # 1 Continue with a technology reimbursement program for legislators for the 2011 session.	2011 legislative session.	Program is in place, and legislators are using it.

Goal # 5: Continue to help legislators be more effective at their job by applying automation.		
Supported Branch Function(s): Legislation and Policy Development		
Objective # 2 Continue to make improvements in the area of reducing the paper used by legislators during a daily legislative floor session and moving the information online (chamber automation).	2011 legislative session.	Legislators are using less paper and accessing data more online. Legislators are trained to properly use the technology provided.

Goal # 6: Replace Aging/Obsolete IT Infrastructure		
Supported Branch Function(s): Research, Fiscal Analysis, Legislation and Policy Development, Information Distribution, Oversight, Business Services		
Objective(s)	Timeframe	Measure
Objective # 1 Replace the current bill drafting, enrolling, engrossing, committee minutes, journal, session laws, code update (and other publications systems), and possibly the bill status systems with newer technology.	Ongoing throughout FY 2010, 2011, 2012, and 2013	New systems are in place in the timeframes set for them, are operational, and meet the needs.

By accomplishing these goals and objectives, the Branch will make major headway in making IT processes more dependable and efficient. The Branch will also make important contributions to the legislative process by increasing public access to, and participation in, government.

5. FY 2010-11 Central Information Technology Budget Proposal

In order to meet the Legislative Branch's short-term IT goals and objectives, the necessary resources must be clearly identified and funded. As noted in Chapter 4, the Planning Council's top goal for the upcoming biennium is to maintain the operational status of the Legislative Branch's current computer environment. Maintaining the operational status requires procurement of certain equipment and services and completion of several projects, including but not limited to:

- replacing computer hardware (i.e., printers, personal computers, servers, and other peripherals) in accordance with the Branch's replacement cycle;
- purchasing maintenance contracts or ensuring that warranties are in place on printers, personal computers, and servers;
- IT training for IT staff, LAD information systems audit staff, and all Branch staff;
- purchasing network infrastructure, web server, and database services;
- converting to supported releases for off-the-shelf software;
- purchasing contracted services for conversion projects, network support, and application support; and
- hiring interns from local colleges.

In addition to maintaining the operational status of the current computer environment, the Planning Council is seeking funds for a systems analyst FTE to document LFD systems and to provide better centralized support for LFD.

The Planning Council is requesting a centralized IT budget of \$3,260,688 for the 2011 biennium, including present law and new proposals. The table below provides more detail of the biennial budget.

Additionally, the Planning Council is recommending that the current bill drafting, enrolling, engrossing, committee minutes, journal, session laws, code update (and other publications systems), and possibly the bill status systems be replaced. Some of these

systems are about 10 years old. The code update system is about 20 years old. While they are not obsolete, they are toward the end of their life cycle and may become obsolete in the near future. (See the Declining or Obsolete Technology section in Chapter 3.) Another reason for replacing these systems is the pending large number of potential staff retirements. Several of the staff that are or will shortly become eligible for retirement have key knowledge of how these systems work. Replacing these systems now will allow the capture of some of this key knowledge. Additionally, several important improvements could be made to these business processes that would be of great benefit to the Branch. For instance, many state legislatures are moving toward automatic engrossing. The current ballpark estimate for replacement of these system is \$5,000,000. These projects qualify for use of the IT obsolete systems reserve account. However, there is not currently, nor will there in the next 4 years be, enough money in the IT obsolete systems reserve account to fund the \$5,000,000 necessary to replace these systems. Therefore, the Planning Council is requesting \$5,000,000 be allocated by the 2009 Legislature and placed in the IT obsolete systems reserve account. While it is true that there is a potential for approximately another \$1,000,000 to be placed in the IT obsolete systems reserve account over the next 4 years through the IT obsolete systems reserve account allocation method, this money may be needed for other emergency obsolete system that come up.

Legislative Branch FY 2010-11 IT Budget

Central IT Budget (Org 2042) - Existing Law		
Maintain the Operational Status of the Current Computer Environment		Biennial Budget
	Hardware and Software for Life Cycle Costs - Replacement Cycle	\$899,740
	Hardware Maintenance and Supplies	90,000
	House and Senate Vote System Maintenance (2 Years)	13,000
	ITSD Services	*735,924
	Interns (4 Interns each year)	65,000
	Training	40,000
	Audit IT Training	40,000
	Manage Firewalls for the Branch 30hr/month @ \$120	64,800
	Reapportionment System Hardware and Software	50,500
	Web Server Lease from OPI	14,000
	Library Databases to the Internet (pay State Library to host catalog)	2,000
	Contr: LAWS Support (Session)	63,000
	Contr: Network Support for Session Buildup	60,000
	Contr: Network Engineering Support	90,000
	Contr: LAD SABHRS/Banner Support	80,000
	Contr: Connect Legislators Laptops	15,000
	Contr: Upgrade Branch macros to new office suite (8 months @ \$100 per hour)	138,400
	Duplicating Equipment for Committee Minutes	5,000
	Server Room Security Improvements	15,000
	Recovery Server/Replacement PCs	55,000
	Contr: Security Plan - Assessment, Testing, and Updating	25,000
	Contr: Disaster Recovery Plan - Assessment, Testing, and Updating	65,000
	Legislator Technology Allowance - \$1,500 for 120 Legislators	180,000
	Contr: Integrate Calendars and Notification Systems	30,000
	Contr: Enhance Information Retrieval for Legislators	150,000
	Contr: Documenting Business Process for LFD (680 hrs @ \$175/hr)	119,000
Existing Law - Central IT Budget Total		\$3,105,364
Central IT Budget (Org 2042) - New Proposals		
FTE		Biennial Budget
	LFD Support	155,304
	Biennial Total	\$155,304
New Proposals - Central IT Budget Total		\$155,304
Grand Total Central IT Budget FY 2010-11		\$3,260,668

Reserve Account (Org 2043)	
Obsolescence Issues - Reserve Account	
Contr: Replace Bill Drafting, Engrossing, Enrolling, Committee Minutes, Journal, Bill Status, Code Update	5,000,000
Grand Total Reserve Account Request for FY 2010, 2011, 2012, 2013	\$5,000,000

* Subject to Fixed Cost Change

6. Long-Term Information Technology Issues for the Legislative Branch

Looking down the road 4 to 10 years, the Planning Council sees continual growth in the application of technology and benefits to be derived from the following additional areas.

- Automation for Legislators

Legislators' demand for IT resources has continually increased from session to session. The Planning Council believes that this trend will continue and that new technology will continue to come along that can help legislators be more effective at their jobs.

The Planning Council also believes that lawmakers must take an active role in defining their needs, identifying potential approaches for addressing those needs, and supporting adequate funding to purchase and support those needs. Both the Planning Council and legislators must actively pursue and apply this new technology to the benefit of the Legislature.

- Internet Broadcasting of Session Activities (Including Video)

The Legislature has taken several steps toward making session proceedings available to the public via Internet broadcasting. During the 2007 session, almost all session proceedings were broadcast live through the Internet and archived in audio format. During the 2009 session, video broadcasting of the House and Senate floor sessions is planned. The next steps are to broadcast all proceedings in both audio and video and to link these recordings to the appropriate bill status action for each bill.

- Support of Audio and Video Services

OLIT has interfaced and supported Television Montana (TVMT) in its television broadcasting of legislative and other proceedings. Currently the challenge is to have more integrated Internet broadcasting and television broadcasting services and to better define OLIT's role in TVMT. Similar yet unique skill sets may be required in the future to achieve better administration of the services.

- Geographic Information Systems (GIS)

The Branch has a partially unmet need for analyzing geographic (spatial related) data and presenting the analysis in map form. Large amounts of the data that the Branch deals with can better be presented in map form rather than in tables. Once presented in map form, the viewer can better grasp what the data is saying. GIS systems can meet this need. The Branch currently uses GIS in its support of redistricting, interim committee work, and auditing, but has not tapped into its full potential as yet.

- Interface to Executive Branch and University System Data

The Executive Branch and University System are continually upgrading and adding functionality to their IT systems. The Legislature needs access to this data for fiscal analysis and audit purposes. The Branch will continually be adjusting and refining its IT systems that interface to Executive Branch and University System systems to stay current with the additions and changes made to these IT systems.

- Continued Improvement to the Branch Website

In general, the more information that the Branch can deliver directly to the public, the more accurate and complete is the portrait of the Legislature. The Internet is an ideal tool for providing this information to the public. The Branch already makes significant use

of the Internet. There are still several opportunities for improvement, and with the constant improvement of Internet technology, more opportunities will become available in the future.

- Continued Exploration of Open Source Software

Open source software is software in which the source code is made available with the software. This is in contrast to proprietary software in which only the run-time version of the software is made available. Unlike proprietary software, open source software is mainly developed over the Internet through an open environment. Because of these differences, open source software is typically cheaper, more reliable, more robust, and easier to support than traditional proprietary software. The Branch needs to keep an eye on these new developments and apply open source software to the Branch environment whenever cost-effective and appropriate.

- Continued Exploration of Ways to Reduce the Technology Replacement Cycle Costs

The Branch spends about \$1 million in replacement cycle technology (printers, PCs, servers, etc.) every biennium. Any action that the Branch can take to extend the current replacement cycle will help reduce these costs. The challenge is to choose technology that has the potential to last more than the current replacement cycle of 4 years, can perform the same functions as current technology, and does not require an extensive conversion effort. Support of open standards can help make significant improvements in this area.

Appendix A: Membership of Advisory Groups

Legislative Branch Computer System Planning Council

Susan Fox, Executive Director, Legislative Services Division, Chair (ex officio)
Marilyn Miller, Chief Clerk of the House
Clay Scott, Sergeant at Arms of the Senate
John Brueggeman, State Senator, Senate District No. 6
Llew Jones, State Representative, House District No. 27
Dick Clark, Executive Branch CIO, Information Technology Services Division,
Department of Administration
Clayton Schenck, Legislative Fiscal Analyst
Tori Hunthausen, Legislative Auditor
JP Pomnichowski, State Representative, House District No. 63 (unofficial member)

Technical Planning Group (TPG)

Kent Rice, Legislative Audit Division
Terry Johnson, Legislative Fiscal Division
Karen Berger, Legislative Services Division
Henry Trenk, Legislative Services Division
Jeanette Nordahl, Legislative Services Division
Steve Eller, Legislative Services Division
Darrin McLean, Legislative Services Division
Mike Allen, Legislative Services Division
Dale Gow, Legislative Services Division

Web Team

Gayle Shirley, Branch Public Information Officer, Legislative Services Division (Chair)
Alysa Eaton, Legislative Services Division
Sonia Gavin, Legislative Services Division
Mike Allen, Legislative Services Division
Diane McDuffie, Legislative Fiscal Division
Angie Lang, Legislative Audit Division
Lisa Mecklenberg Jackson, Legislative Services Division
Sonja Nowakowski, Legislative Services Division
Sue O'Connell, Legislative Services Division
Mandi Shulund, Legislative Consumer Counsel

Appendix B: Legislative Branch Enterprise Architecture

1. Executive Summary

Enterprise architecture (EA) is the discipline of scientifically designing the technology elements of an enterprise, guided with principles, frameworks, methodologies, requirements, tools, reference models and standards.

The Montana Legislative Branch enterprise architecture represents the Branch's best practices in services, processes and technology. A Branchwide approach allows for significant savings, as redundant or less efficient approaches are set aside in favor of approaches that have a proven track record.

This document aims to identify the best of existing tools, technologies, and processes, as well as providing guidelines to apply to new technologies. An effective architecture reduces the time and cost in acquisition, implementation, and maintenance of IT systems.

The Montana Legislative Branch information technology architecture is composed of two major sections—the *principles* (which are guided by the Branch strategies and priorities and themselves guide the architecture), and the *architecture* (which describes specific priorities and recommendations).

2. Principles

The Montana Legislative Branch enterprise architecture is established upon a set of principles (§§2.1 – 2.15) that are intended to guide Branchwide IT decisionmaking and the planning and implementation of information systems. The principles describe the characteristics of the Branch.

The principles (and the architecture) describe the best general case solution. Where conflicts occur, two or more alternative solutions should be examined and a cost/benefit analysis conducted.

2.1 Primacy of Principles

Statement: These principles of information management apply to all organizations within the Legislative Branch.

Rationale: The only way we can provide a consistent and measurable level of quality information to decisionmakers is if all organizations abide by the principles.

2.2 Maximize Benefits to the Legislative Branch

Statement: Information management decisions are made to provide maximum benefit to the Legislative Branch as a whole.

Rationale: This principle embodies “service above self”. Decisions made from a Branchwide perspective have greater long-term value than decisions made from any particular legislative division perspective. Maximum return on investment requires information management decisions to adhere to Branchwide drivers and priorities. No legislative division will detract from the benefit of the whole. However, this principle will not preclude any legislative entity from getting its job done.

2.3 Information Management Is Everybody’s Business

Statement: All divisions in the Legislative Branch participate in information management decisions needed to accomplish business objectives.

Rationale: Information users are the key stakeholders, or customers, in the application of technology to address a business need. In order to ensure information management is aligned with the business, all divisions in the Legislative Branch must be involved in all aspects of the information environment. The business experts from across the divisions and the technical staff responsible for developing and sustaining the information environment need to come together as a team to jointly define the goals and objectives of IT.

2.4 Business Continuity and System Security

Statement: Legislative Branch operations are maintained in spite of system interruptions.

Rationale: As system operations become more pervasive, we become more dependent on them; therefore, we must consider the reliability of such systems throughout their design and use. Business premises throughout the Legislative Branch must be provided with the capability to continue their business functions regardless of external events. Hardware failure, natural disasters, and data corruption should not be allowed to disrupt or stop Branch activities. The Branch business functions must be capable of operating on alternative information delivery mechanisms.

2.5 Common Use Applications

Statement: Development of applications used across the Legislative Branch is preferred over the development of similar or duplicative applications that are only provided to a particular legislative division.

Rationale: Duplicative capability is expensive and proliferates conflicting data.

2.6 Control Technical Diversity

Statement: Technological diversity is controlled to minimize the nontrivial cost of maintaining expertise in and connectivity between multiple processing environments.

Rationale: There is a real, nontrivial cost of infrastructure required to support alternative technologies for processing environments. There are further infrastructure costs incurred to keep multiple processor constructs interconnected and maintained.

2.7 IT Responsibility

Statement: The OLIT organization is responsible for owning and implementing IT processes and infrastructure that enable solutions to meet user-defined requirements for functionality, service levels, cost, and delivery time.

Rationale: Effectively align expectations with capabilities and cost so that all projects are cost-effective. Efficient and effective solutions have reasonable costs and clear benefits.

2.8 Data Is an Asset

Statement: Data is an asset that has value to the Legislative Branch and is managed accordingly.

Rationale: Data is a valuable Branch resource; it has real, measureable value. In simple terms, the purpose of data is to aid decisionmaking. Accurate, timely data is critical to accurate, timely decisions. Most Branch assets are carefully managed, and data is no exception. Data is the foundation of our decisionmaking, so we must also carefully manage data to ensure that we know where it is, can rely upon its accuracy, and can obtain it when and where we need it.

2.9 Data Is Shared

Statement: Users have access to the data necessary to perform their duties; therefore, data is shared across Branchwide divisions.

Rationale: Timely access to accurate data is essential to improving the quality and efficiency of Branch decisionmaking. It is less costly to maintain timely, accurate data in a single application, and to share it, than it is to maintain data that is stored in hundreds of incompatible stovepipe databases. The speed of data collection, creation, transfer, and assimilation is driven by the ability of the Branch to efficiently share these islands of data across the Legislative Branch.

2.10 Data Is Accessible

Statement: Data is accessible for users to perform their functions.

Rationale: Wide access to data leads to efficiency and effectiveness in decisionmaking and affords timely response to information requests and service delivery. The use of information must be considered from a Legislative Branch perspective to allow access by a wide variety of users. Staff time is saved and consistency of data is improved.

2.11 Data Security

Statement: Data is protected from unauthorized use and disclosure.

Rationale: Open sharing of information and the release of information must be balanced against the need to restrict the availability of classified, proprietary, and sensitive information.

2.12 Technology Independence

Statement: Applications are independent of specific technology choices and therefore can operate on a variety of technology platforms.

Rationale: Independence of applications from the underlying technology allows applications to be developed, upgraded, and operated in the most cost-effective and timely way. Otherwise technology, which is subject to continual obsolescence and vendor dependence, becomes the driver rather than the user requirements themselves.

2.13 Requirements-Based Change

Statement: Only in response to business needs are changes to applications and technology made.

Rationale: This principle will foster an atmosphere where the information environment changes in response to the needs of the business, rather than having the business change in response to IT changes. This is to ensure that the purpose of the information support—the transaction of business—is the basis for any proposed change. Unintended effects on business due to IT changes will be minimized. A change in technology may provide an opportunity to improve the business process and, hence, change the business needs.

2.14 Responsive Change Management

Statement: Changes to the legislative information environment are implemented in a timely manner.

Rationale: If people are to be expected to work within the legislative information environment, that information environment must be responsive to their needs.

2.15 Interoperability

Statement: Software and hardware should conform to defined standards that promote interoperability for data, applications, and technology.

Rationale: Standards help ensure consistency, thus improving the ability to manage systems and improve user satisfaction, and protect existing IT investments, thus maximizing return on investment and reducing costs. Standards for interoperability additionally help ensure support from multiple vendors for their products, and facilitate supply chain integration.

Please see the following link for more details of the enterprise architecture principles:

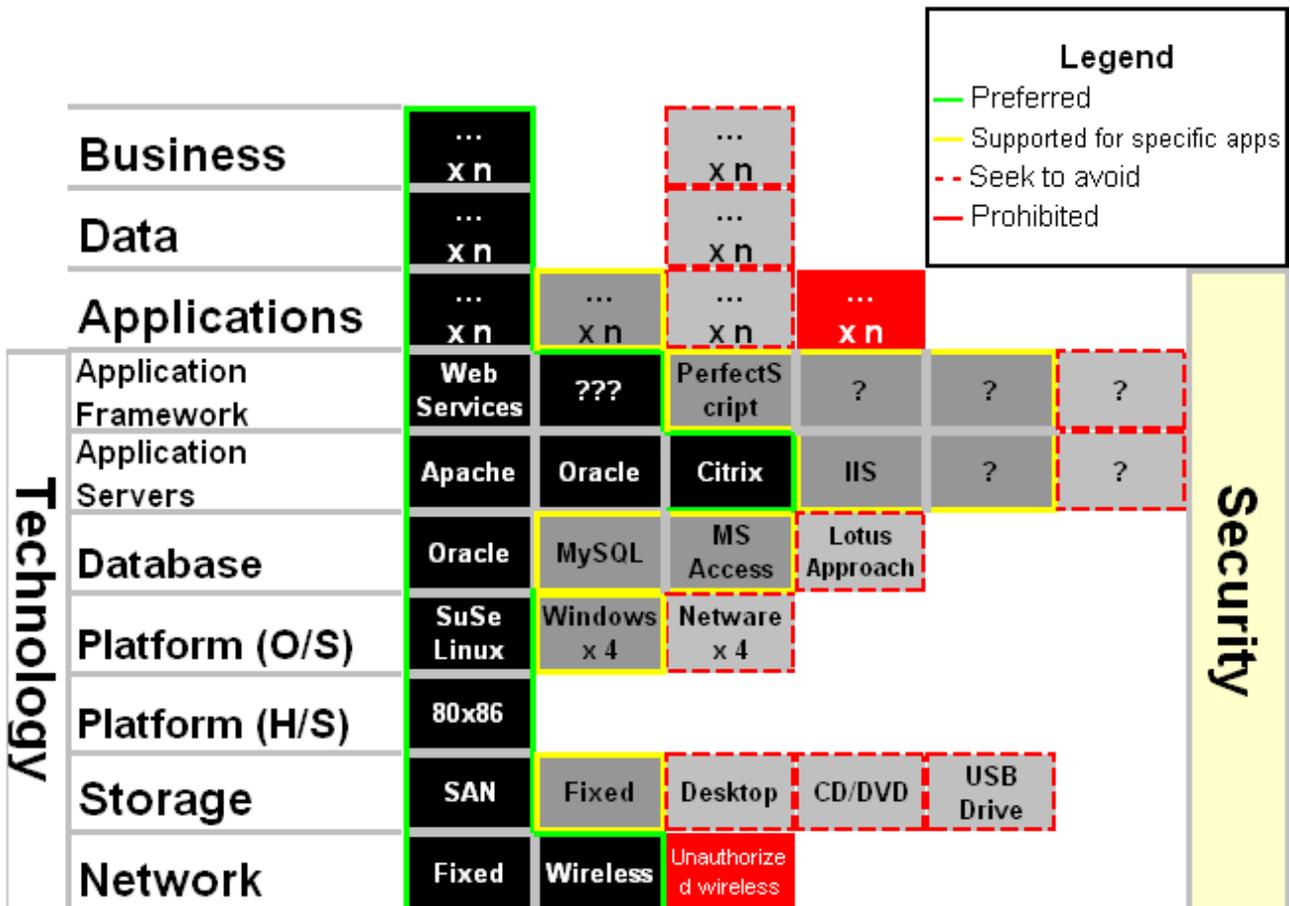
http://leg.mt.gov/content/committees/interim/2007_2008/com_sys_plan/meeting_documents/mt_legislative_branch_it_architecture.pdf

3. Enterprise Architecture Overview

The enterprise architecture ranges from overarching *business and data architectures* through *applications and technical infrastructure* (network, storage, and platforms). In the sample diagram below, the "preferred" (first choice and most well supported) parts of the architecture are highlighted in green, the "supported" (for specific areas of use) are highlighted in yellow and the "seek to avoid" are outlined with red dashes. Please note that all software/hardware depicted in the diagram below is only for illustrative purposes and may not be the actual software/hardware that is adopted for the official Branch enterprise architecture. The official Branch enterprise architecture is discussed in more detail in the sections 4 through 7 that follow.

SAMPLE Overview of Enterprise Architecture

June 9, 2008



4. Business Architecture

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 5-2-503, 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).

Missions

The missions of the consolidated Legislative Branch entities are as follows:

- The mission of the Legislature is to exercise the legislative power of state government vested in the Legislature by the Montana Constitution.
- The mission of the Legislative Services Division is to provide research, reference, legal, technical, information technology, and administrative support services to the Senate, House, and other divisions of the Legislative Branch in support of effective and efficient operation of the Legislative Branch and to support the mission of the Legislative Council.
- The mission of the Legislative Fiscal Division is to provide the Legislature with objective fiscal information and analysis relevant to Montana public policy and budget determination.
- The mission of the Legislative Audit Division is to conduct independent audits under supervision of the Legislative Audit Committee, as provided by law, and to provide factual and objective information to the legislative and executive managers of the public trust.

5. Data Architecture

Data models, data dictionary, and data management (under development).

6. Application Architecture

There is one basic tenet that the Branch needs to keep in mind as it develops, upgrades, or purchases applications. That is that the basic functions (legislation, fiscal analysis, audit, research, oversight, administration, etc.) of the Branch rarely change. Because the functions of the Branch rarely change does not imply that the business process needed to accomplish those functions will never change. New functionality brought on by new technology will require business process changes. However, this tenet (Branch functions rarely change) applies in several ways to applications. One way it applies is that the Branch should put in place applications that have as long a life cycle as

possible. Since functions rarely change, this means that applications will not necessarily be made obsolete by a change in functionality but rather by a change in technology. Therefore, it is of benefit to the Branch to select technology that will have a long life span. Two ways to do this are to select platform-independent technology and technology that follows international standards.

A. Presentation Architecture (under development)

B. Database Architecture (under development)

Element	Database	
Description	Software that provides database services	
Class	Product	Notes
Preferred - Enterprise Level Databases	Oracle	Need to do BCA to determine future direction
Preferred - Non Enterprise Level Databases	MS Access	Need to do BCA to determine future direction
Supported	MySQL	Need to do BCA to determine future direction
Maintenance	Lotus Approach	Used by LFD only and is being phased out

C. Application Development

Element	Web Development	
Description	Software that provides development tools for the web environment	
Class	Product	Notes
Maintenance	ZenD Studio	Needs BCA to determine future direction

Element	Web Site Development	
Description	Software that provides website development capabilities	
Class	Product	Notes
Preferred	Dreamweaver 4 Fireworks 4 Homesite 5	Needs BCA to determine future direction

D. Application Support Services and Standards (under development)

E. Desktop Applications

Element	3270 Emulation	
Description	Software that provides IBM 3270 terminal interface to the mainframe	
Class	Product	Notes
Preferred	Attachmate Extra	Provided under ITSD Enterprise License Agreement

Element	Chart/Graph/Flowchart/Image	
Description	Software that provides charting, graphics, flowcharting, and imaging	
Class	Product	Notes
Supported	MS Visio 2002/2003	Flowcharting - Needs BCA to determine future direction
Acceptable	Flowcharting 4 Corel Draw Paint Shop Pro 7	Needs BCA to determine future direction. Corel Draw approved for usage for Lee Heiman, LSD, only

Element	File Compression	
Description	Software that compresses file sizes to reduce storage requirements or provide for easier electronic transfer	
Class	Product	Notes
Preferred	Windows Native	
Supported	WinZip 81	

Element	Data Analyzer	
Description	Software that provides analysis of data	
Class	Product	Notes
Acceptable	ACL	Audit Control Language - used by LAD

Element	Database Connector	
Description	Software that is used to connect to any relational database	
Class	Product	Notes
Preferred	Oracle Client Windows ODBC	ITSD Standard

Element	Database Reporting	
Description	Software that provides report-writing capability for databases	
Class	Product	Notes
Acceptable	Crystal Reports v8	Used by LFD only - needs BCA to determine future direction

Element	Desktop Operating System	
Description	Software that provides the operating system for the desktop or laptop PC	
Class	Product	Notes
Preferred	Windows XP SP2	Needs BCA to determine future direction
Supported	Linux - SuSe Linux Enterprise Desktop	Needs BCA to determine future direction

Element	Desktop Publishing Suite	
Description	Software that provides camera-ready copy for bound book publications	
Class	Product	Notes
Preferred	Ventura Publisher	Produces camera-ready copy for LSD publications
Supported	Adobe InDesign	Needs BCA to determine future direction

Element	E-Mail/Scheduling/Calendaring	
Description	Software that provides e-mail/scheduling/calendaring services	
Class	Product	Notes
Preferred	MS Outlook/Exchange	Provided by ITSD

Element	File Transfer	
Description	Software that provides file transfer capability	
Class	Product	Notes
Preferred	Core FTP	
Acceptable	WS_FTP Pro 782	

Element	GIS	
Description	Software that provides spatial analysis and mapping capability	
Class	Product	Notes
Preferred	ArcView US Census	General GIS usage for redistricting project - BCA approved 04/21/08

Element	Internet Browser	
Description	Software that provides internet browsing capabilities	
Class	Product	Notes
Preferred	Internet Explorer	Needs BCA to determine future direction
Candidate	Firefox	Needs BCA to determine future direction

Element	Media Player	
Description	Software that provides audio/Video playback capabilities	
Class	Product	Notes
Preferred	RealPlayer Windows Media Player	Session proceedings playback Used for playing Windows Media Files
Supported	Macromedia Flash Player	

Element	MS Office Add-in	
Description	Software that provides additional capabilities to the MS Office Suite	
Class	Product	Notes
Preferred	CrossEyes V22	
Acceptable	MS Outlook Add-in Attachment Save	BCA approved 10/01/07

Element	MS Office Development Tools	
Description	Software that provides additional development capabilities to MS Office	
Class	Product	Notes
Preferred	FMS Tools TACRUN90	

Element	PC Image	
Description	Software that can restore a PC to its original software state	
Class	Product	Notes
Supported	Ghost	For IT staff usage only - needs BCA to determine future direction
Candidate	ZEN Imaging	Needs BCA to determine future direction

Element	PDF Creator	
Description	Software that created PDF documents	
Class	Product	Notes
Supported	Adobe Acrobat 7.0 Professional Suite	
Acceptable	WP PDF Creator PDF 995	Supported on Citrix only

Element	PDF Reader	
Description	Software that reads PDF documents	
Class	Product	Notes
Preferred	Adobe Acrobat 7.0 Reader	
Candidate	Adobe Acrobat 8.0 Reader	

Element	Presentation	
Description	Software that provides slide show presentations	
Class	Product	Notes
Preferred	MS Power Point	
Candidate	Open Office Impress	Needs BCA to determine future direction

Element	Project Management	
Description	Software that provides project management capabilities	
Class	Product	Notes
Preferred	Milestones Milestones Viewer 2000 Project Kickstart	Needs BCA to determine future direction
Candidate	Open Project	Needs BCA to determine future direction

Element	Query Tool	
Description	Software that provides database query capabilities	
Class	Product	Notes
Preferred	Oracle Discoverer	
Acceptable	PL/SQL Developer	

Element	Reference	
Description	Software that provides reference capabilities	
Class	Product	Notes
Preferred	AICPA (prof standards, tech practice aids, audit & acct guidelines)	

Element	Reference - Library	
Description	Software that provides library reference (catalog) capabilities	
Class	Product	Notes
Supported	DB Search v4 DB Text v4	Needs BCA to determine future direction

Element	Remote Access Services	
Description	Software that provides remote access to the Branch network file servers and desktop	
Class	Product	Notes
Preferred	CITRIX	

Element	Reports Distribution System	
Description	Software that provides for electronic distribution of reports	
Class	Product	Notes
Preferred	DocuAnalyzer 6.0	
Maintenance	DocumentDirect	

Element	Screen Capture	
Description	Software that provides for capturing an image of the display screen	
Class	Product	Notes
Preferred	Snagit	

Element	Search Engine	
Description	Software that provides search capability of a database of documents	
Class	Product	Notes
Supported	Folio Views 4.2 Google	Used for MCA Used for Branch website

Element	Spreadsheet	
Description	Software that provides spreadsheet capabilities	
Class	Product	Notes
Preferred	MS Excel 2003	
Acceptable	MS Excel 2007	Approved for specific uses for LAD and LFD via CITRIX farm - see specific BCAs
Maintenance	Lotus 123	

Element	SpyWare	
Description	Software that detects inappropriate spyware software that has been maliciously loaded on Branch computers	
Class	Product	Notes
Maintenance	Spybot Search and Destroy Counter Spy	

Element	Statistical Analysis Reporting	
Description	Software that provides statistical analysis capabilities	
Class	Product	Notes
Preferred	PC SAS	Used by LFD only. Needs BCA to determine future direction

Element	Survey	
Description	Software that provides the capability of preparing a survey and analyzing the survey results	
Class	Product	Notes
Maintenance	SurveyPro	Needs BCA to determine future direction. Most surveys are now done by a web form designed and maintained by the application development staff.

Element	Virus Protection	
Description	Software that provides virus protection on Branch computers	
Class	Product	Notes
Preferred	NOD 32	provided by ITSD
Maintenance	McAfee	

Element	Voice Translation	
Description	Software that provides voice translation into computer text form	
Class	Product	Notes
Acceptable	Dragon Naturally Speaking	Used by LAD only

Element	Word Processing	
Description	Software that provides word processing capabilities for the Branch	
Class	Product	Notes
Preferred	MS Word 2003 WordPerfect	Needs BCA to determine future direction
Candidate	Open Office Writer	Needs BCA to determine future direction

F. Client Applications (under development)

7. Technology Architecture

A. Client Platform Architecture (under development)

B. Server Platform Architecture (under development)

Element	Server OS	
Description	Software that provides operating system capabilities for Branch servers	
Class	Product	Notes
Preferred	Linux OES 2 SLES 10 sp1 Windows 2003	Needs BCA to determine future direction
Maintenance	Novel Netware 6.5 sp7 Windows 2000	

Element	Web Server	
Description	Software that provides web server capabilities for Branch servers	
Class	Product	Notes
Supported	IIS	Needs BCA to determine future direction
Candidate	Apache	Needs BCA to determine future direction

C. Server Data Storage Architecture (under development)

D. Network Architecture (under development)

Element	Computer PCs and Servers	
Description	Computer hardware for PCs and Servers	
Class	Product	Notes
Preferred	State Term Contract x86 PCs and Servers	Needs BCA to determine future direction

Element	Printers	
Description	Hardware printers	
Class	Product	Notes
Preferred	High end color - Konica Minolta Label - Dymo Laser - Lexmark Plotter - HP	
Supported	Label (twin) - Dymo twin label printer	

Element	Wireless Handheld Devices	
Description	Hardware that provides wireless phone e-mail and other services	
Class	Product	Notes
Supported	Blackberry HTC6800 Altel	Need BCA to determine future direction
Acceptable	HP PDA	Need BCA to determine future direction

Enterprise Architecture or Appendix B: Classification

Class	Description
Preferred	The product or products are currently deemed to offer the best combination of value, features, security, etc., for Branchwide use. Usually there is a single "preferred" product, but occasionally there may be two, in which case each is preferred for a specific domain of usage. Generally supply and support arrangements exist and Branchwide licensing may have been negotiated.
Supported	Adopting these technologies is likely to be more expensive than "preferred" solutions, and these costs should be factored into the business case analysis. The architecture is a balance of business benefit and cost, and there are a number of circumstances where a noncompliant product may provide compelling business benefits that warrant the increased expense. However, when these products are adopted, users should not regard these products as supported for use outside their proscribed domains, as support is quite limited and defined.
Acceptable	A product is deemed to be less desirable in some sense than those in the "preferred" class, but may be used in cases when the preferred products are ruled out on the basis of business requirements. Support for "acceptable" solutions will be weaker (may be supported entirely by the user) and users are encouraged to consider "preferred" solutions.
Candidate	A product is not yet classified, but deemed to have sufficient merit for consideration as a potential preferred product. Candidate products are typically new products or technologies and may be used in trial or pilot projects. Support for these products will also be weaker than "preferred" solutions. These products will typically not be covered by supply or support contracts or by existing licenses.
Maintenance	Products are in use at the Montana Legislative Branch, probably in legacy applications, but are deemed to be less suitable than the best currently available. New projects should always use "preferred" class products (unless the Computer System Planning Council grants a dispensation). Where projects or services already use a "maintenance" product, its use may be continued until there is a major upgrade or redesign. At this point a switch to a preferred product should be considered. Supply, support, and licensing, if they exist at all, may be subject to "sunset" clauses, so these aspects should be reviewed regularly.

Prohibited	Products that have serious defects or whose philosophy, structure, or resource requirements make them inappropriate to the Montana Legislative Branch enterprise architecture. These products should not be used in any sustained production situation.
------------	---

Appendix C: Business Case Analysis Process

The Montana Legislative Branch (Branch) uses formal business case analysis (BCA) when considering new information technology (IT) projects or upgrades of existing technology. This is an IT industry best practice.

Purpose

The purpose of the BCA is to ensure that new or upgraded technologies:

- 1) are needed – will enhance or allow for the improvement of a Branch business function(s);
- 2) are cost effective – the value and cost of alternatives are understood;
- 3) are not unnecessarily disruptive – the technology and personnel change requirements are documented and change management planning and execution are used;
- 4) are planned and resourced – the dollars and personnel resources for IT projects are understood before a project or task begins;
- 5) are documented – the BCA documents serve as a repository of the reasons why technologies were implemented, and when.

A brief and well-written overview of the purposes of BCA is available online at Wikipedia: http://en.wikipedia.org/wiki/Business_case.

Tiers

The Branch is using a three-tier approach to BCA. The goal of the three-tier approach is to expend the appropriate amount of effort (no more, no less than needed) on the BCA. Most of the projects and upgrades undertaken by the Branch are relatively small, and thus would require a tier 1 (short and fast) BCA. On the other hand, some Branch projects approach or exceed \$1 million, and need the more in-depth BCA used for tier 3.

The estimated size of the project determines the tier. IT projects that are estimated to cost less than \$5,000 and require less than 100 man-hours are tier 1. Projects costing more than \$5,000 and less than \$50,000 OR man-hour estimates are greater than 100 but less than 1,000 man-hours are tier 2. Finally, those projects estimated to cost more than \$50,000 OR have man-hours estimated at more than 1,000 are tier 3.

A properly completed BCA requires effort from both IT and functional specialists. In general, an IT analyst will guide the process and document the findings, but only in rare (very limited) cases can the BCA be completed without functional user expertise and input. A small scale (tier 1) BCA may require an IT analyst and functional specialist or two to meet and discuss things for only an hour or two. On the other hand, a large impact (tier 3) BCA could require a team of multiple IT and functional experts to work together over many weeks. There is no scientific estimate to be had here, but in general the following estimates can be used:

Tier 1) IT man-hours = 1 to 20. Functional specialist man-hours = 0 to 10
Tier 2) IT man-hours = 10 to 100. Functional specialist man-hours = 5 to 50
Tier 3) IT man-hours = 50 to 500. Functional specialist man-hours = 40 to 400

Process

The first step in the BCA is someone defining a need or desire for new technology. Usually this happens without prompting in the general course of business or when someone sees what other organizations are doing that the Branch should consider. Sometimes, older technology just “starts letting users know” it’s time to think about replacement. It may be that past practices drive the need for a BCA—as might be the case where overlap of existing technologies are analyzed for potential consolidation. In any case, perceived need is the beginning of the process.

The second step is to size the project. The person that identified the need should work with an IT analyst to make a rough estimate of the scope and cost of the desired change. This estimate will determine the appropriate BCA tier, and can be used for related staff planning and budget development too. Generally, this step would require 1 to 40 hours, depending on the project’s overall size and impact. Larger projects need more thorough initial estimates.

Next, a BCA effort estimate (an estimate of the BCA development time, not the project itself) is completed and delivered to appropriate functional and IT managers. This is a one-page document briefly describing the project; and the estimated time and personnel needed to complete the BCA. Normally, this approval to move forward with the BCA is the decision of the immediate supervisor of the IT and functional specialists that will develop the BCA. There is no point going further if management chooses not to support the project and will not allow for sufficient staff resources to develop the BCA. Some tier 1 BCAs can be done “under the radar”, but management approval and awareness is a good idea for most BCA development efforts.

Timeframes

If given the go-ahead by management, the BCA development begins. For a tier 1 BCA, the research and documentation might be finished in an afternoon or a few days. For very small projects, it may appear that there are no costs to do something (like a free upgrade to an existing software program) and the BCA is just a bureaucratic waste. But, like puppies, there are no “free” IT projects. If nothing else, the new software needs to be tested in the Branch IT environment and any deployment, user training, or other costs considered.

Each BCA determines its own schedule based on staff availability and the scale and scope of the BCA. The guidelines for the expected maximum duration of a BCA development effort in the Branch are:

Tier 1 = 2 weeks
Tier 2 = 2 months
Tier 3 = 6 months

There is no minimum duration for this. That said, there is some time needed to properly complete the BCA even for a simple project.

Criteria

One of the primary purposes of the BCA is to come to a “go or no go” decision for IT projects. This is more challenging in a not-for-profit organization like the Branch since one of the often-used measures in a BCA is return on investment. There are no sales, margin, or profit measures to calculate from. In some cases, direct cost savings can be estimated and should be included in the analysis. The primary criteria the Branch uses to evaluate a BCA are:

- 1) Does the project improve a business process related to defined Branch objectives?
- 2) Is the expected cost (dollars and personnel) reasonable for the expected outcome?
- 3) Do existing IT resources or assets exist that can meet the need?
- 4) What cost savings (dollars and personnel) will the project deliver?
- 5) If the project negatively impacts other projects, has priority been considered?
- 6) Does the project “fit” existing Branch IT architecture? If not, what will be done to fit it or mitigate impacts?
- 7) What are the change management requirements for the project?
- 8) Does management/leadership support the project?
- 9) When applicable, does the project “fit” with the Executive Branch IT architecture?
- 10) Are there enough resources (dollars and personnel) available to proceed with the project? If not, when will they be?
- 11) What are the expected consequences if the decision is “no go”?

Approvals

Once the BCA has been completed, there is analysis and decisionmaking on whether or not to proceed with the project. In general, the “go or no go” decision on a project (based on the BCA) will be made as follows:

Tier 1 – Decision of the Branch Technical Planning Group (TPG) with any IT expenditures approved by the Director of the Office of Legislative Information Technology. If TPG cannot agree, elevate to the three directors of LAD, LFD, and LSD.

Tier 2 - Decision of the three directors of LAD, LFD, and LSD with any IT expenditures approved by the Director of the Office of Legislative Information Technology. If the three directors of LAD, LFD, and LSD cannot agree on the project, elevate to the Computer Systems Planning Council (CSPC).

Tier 3 – Decision of the CSPC with any IT expenditures approved by the Director of the Office of Legislative Information Technology. Projects of this scale may require special funding authorization from the Legislative Council (from the Branch IT reserve account) or an appropriation during a legislative session.

Request for Authorization to Develop a Business Case Analysis

Project Summary

Briefly describe the purpose of the project for which the Business Case Analysis (BCA) is being developed.

BCA Tier Estimate

Based on initial estimates, list the appropriate BCA tier level (1, 2, or 3)

BCA Development Cost Estimate

If there are any monetary costs for the BCA development, describe them here. For example: Need to purchase test software at an estimated cost of \$_____.

OLIT Director Approval Signature: _____

BCA Development Time Estimate

List all personnel that are going to work on the BCA and their estimated effort in hours. Their supervisors should approve before the BCA begins.

Name

Est. Hours

Supervisor Approval

Business Case Documentation

SMALL BUSINESS CASE

For projects with initial estimates of less than \$5,000 and less than 100 staff-hours

Project/Product Name:

Project Lead:

Project Short Name:

Division:

Business Unit/Program Area:

Type of Project: *(Select One)*

New initiative

Enhancement/upgrade

Application replacement

Ongoing initiative

Date:

Project Description

Briefly describe the project objectives.

Business Need/Problem

*Briefly describe the **need** or **problem** driving the proposed project and the identification of the customers and anticipated consumers of the project's product.*

Solution

Briefly describe the solution(s) that would resolve the business need or problem. There should be an investigation to see if existing Branch technologies can meet the need.

Costs and Staff-hours

List the estimated dollar costs and staff-hours for the solution(s).

Criteria

- 1) Does the project improve a business process related to defined Branch objectives?
- 2) Is the expected cost (dollars and personnel) reasonable for the expected outcome?
- 3) Do existing IT resources or assets exist that can meet the need?
- 4) What cost savings (dollars and personnel) will the project deliver?

- 5) If the project negatively impacts other projects, has priority been considered?
- 6) Does the project "fit" existing Branch IT architecture? If not, what will be done to fit it or mitigate impacts?
- 7) What are the change management requirements for the project?
- 8) Does management/leadership support the project?
- 9) When applicable, does the project "fit" with the Executive Branch IT architecture?
- 10) Are there enough resources (dollars and personnel) available to proceed with the project? If not, when will they be?
- 11) What are the expected consequences if the decision is "no go"?

Project Recommendation to Proceed

Based on the findings of this business case analysis, it is recommended that this project be undertaken. Add sufficient detail to support this recommendation. If dollars are to be expended on this project, the Director of the Office of Legislative Information Technology must approve.

Monetary estimate:

Signature of OLIT Director:

Include one or the other of these recommendations, not both.

Project Recommendation to NOT Proceed

Based on the findings of this business case analysis it is recommended that this project NOT be undertaken. Add sufficient detail to support this recommendation. This could include provisions to delay the project for now, but ultimately proceed (for example, if sufficient resources are not currently available to proceed).

Date of recommendation:

Business case team (list, by name, all major participants):

Approximate total staff-hours spent on the business case:

Comments:

Business Case Documentation
MEDIUM BUSINESS CASE

For projects with initial dollar estimates of more than \$5,000 but less than \$50,000
OR staff-hour estimates of more than 100 but less than 1,000 staff-hours

Project or Product Name

Executive Sponsor	Office & Title	Phone/Email
I am the executive sponsor of the business case analysis for this project and hereby certify the overall accuracy, viability, and defensibility of the content and estimates in this analysis.		
Executive Sponsor Signature		Date

Technology Sponsor	Office & Title	Phone/Email
I am the technology sponsor of this project and hereby certify the accuracy, viability, and defensibility of the technology-related content and estimates in this business case analysis.		
Technology Sponsor Signature		Date

Month DD, YYYY

Project Manager:

Project Short Name:

Division:

Business Unit/Program Area:

Type of Project: *(Select One)*

New initiative

Enhancement/upgrade

Application replacement

Ongoing initiative

Date:

Version:

Project Description

Briefly describe the project objectives.

Business Need/Problem

*Briefly describe the **need** or **problem** driving the proposed project and the identification of the customers and anticipated consumers of the project's product.*

Potential Solution

Briefly describe the solution(s) that would resolve the business need or problem. There should be a thorough investigation to see if existing Branch technologies can meet the need. In most cases, it is valuable and worthwhile to include a "do nothing" alternative.

Consistency/Fit With Organization's Mission

Describe how the project fits into Legislative Branch organizational needs. Provide rationale if it does not. The criteria used to evaluate business cases are:

- 1) Does the project improve a business process related to defined Branch objectives?
- 2) Is the expected cost (dollars and personnel) reasonable for the expected outcome?
- 3) Do existing IT resources or assets exist that can meet the need?
- 4) What cost savings (dollars and personnel) will the project deliver? Include this in cost-benefit analysis section below.
- 5) If the project negatively impacts other projects, has priority been considered?
- 6) Does the project "fit" existing Branch IT architecture? If not, what will be done to fit it or mitigate impacts?
- 7) What are the change management requirements for the project?
- 8) Does management/leadership support the project?
- 9) When applicable, does the project "fit" with the Executive Branch IT architecture?

10) Are there enough resources (dollars and personnel) available to proceed with the project? If not, when will they be?

11) What are the expected consequences if the decision is “no go”?

Anticipated Benefits

List all Anticipated Benefits resulting directly from the project. Specify the ways there will be measurable improvement of new capabilities and the implications of NOT doing the project, i.e., what benefits will be missed?

For example:

The anticipated benefits include:

- Will improve our customer service by providing _____.
- Will reduce the effort needed for _____.

Cost Estimate

*Provide a **cost estimate** for the project. Include any special sources for project funding.*

For example:

It is estimated that the total cost of this project will be \$23,000. These costs include:

Hardware – \$5,000

Software – \$10,000

Training – \$3,000

Services – \$5,000

Cost-Benefit Analysis

*Justify the **costs** for the identified **benefits**. Include quantitative analysis, e.g., calculations of anticipated savings, costs avoided, etc.*

For example:

Estimates of costs and the potential savings shown below represent a best effort evaluation utilizing expertise and resources from within the Legislative Branch organization and based on a high-level analysis of information available at this time. The actual results cannot be easily measured or guaranteed and will not be fully realized until the project is completed.

The product vendor has indicated, based on its experience with similar clients, that the Legislative Branch should anticipate an operating cost reduction of 3%, representing an annual savings of \$10,000. This will be accomplished primarily by improving productivity of the Legislative Branch staff and customer self-service.

Project Risks

Identify any risks associated with implementing this project.

For example:

Risks associated with implementing this project are identified below.

Risk	Description
Loss of key personnel	Key resources assigned to the project may retire, leave for another job, or, for some other reason, be no longer available to the project. Such losses can have a major impact to the project.
Scope changes	Scope changes can take several forms, including the functions to be addressed, the number of organization units to be involved, the level of detail of products, the specific products to be provided, the allocation of resources, etc. Each change has the potential to put timely project completion at risk, to cause rework, or to examine task/product incompatibilities.
Technology changes	IT staff may be unwilling or unable to adapt to the new technology being deployed. Staff could be impacted as a result of technology changes.
Resistance to change	Staff may dislike the new business processes and blame the system, the project, or the staff working on the project for the change. The organization may experience staff turnover as a result.
Cost/time overruns	Cost and time overruns are the failure to deliver intended artifacts according to the budget and schedule in the project plan. Such slippage can have a domino effect on subsequent tasks in the project and can put actions and benefits dependent upon timely project completion in jeopardy.
Lack of staff	Insufficient resources mean that appropriately skilled individuals are not available when needed. Lack of the necessary skills on the project team not only causes a shortage of resources needed to get the work done, but can reduce the productivity of other team members. Reassignment of team members to another team or to work outside the project is costly in terms of time lost in obtaining a replacement and learning curve for the replacement.

Other Factors, Issues or Concerns

Identify things specific to this project that are relevant but not addressed elsewhere in this document.

Project Recommendation to Proceed

Based on the findings of this business case analysis, it is recommended that this project be undertaken. Add sufficient detail to support this recommendation. If dollars are to be expended on this project, the Director of the Office of Legislative Information Technology must approve.

Monetary estimate:

Signature of OLIT Director:

Include one or the other of these recommendations, not both

Project Recommendation to NOT Proceed

Based on the findings of this business case analysis, it is recommended that this project NOT be undertaken. Add sufficient detail to support this recommendation.

This could include provisions to delay the project for now, but ultimately proceed (for example, if sufficient resources are not currently available to proceed).

Date of recommendation:

Business case team (list, by role and name, all major participants):

Approximate total staff-hours spent on the business case:

Comments:

Business Case Documentation
LARGE BUSINESS CASE

For projects with initial estimates of more than \$50,000 OR 1,000 staff-hours

Project or Product Name

Executive Sponsor	Office & Title	Phone/Email
I am the executive sponsor of the business case analysis for this project and hereby certify the overall accuracy, viability, and defensibility of the content and estimates in this analysis.		
Executive Sponsor Signature		Date

Technology Sponsor	Office & Title	Phone/Email
I am the technology sponsor of this project and hereby certify the accuracy, viability, and defensibility of the technology-related content and estimates in this business case analysis.		
Technology Sponsor Signature		Date

Month DD, YYYY

Project Name:

Project Manager:

Project Short Name:

Division:

Business Unit/Program Area:

Type of Project: *(Select One)*

New initiative

Enhancement/upgrade

Application replacement

Ongoing initiative

Date:

Version:

Executive Summary

Complete this section after completing all other sections. Short, sweet, to the point with the key management issues covered.

Business Need/Problem

*Thoroughly describe the **need** or **problem** driving the proposed project and the identification of the customers and anticipated consumers of the project's product. Include any mandates that require processes or services not currently in place.*

Project Description

Describe in detail the project objectives. What, who, when, how, etc. Describe specifically how this project will help attain business goals and objectives and/or support existing business needs.

Potential Solutions

Describe the product (or multiple products when applicable) that would resolve the business need or problem. Alternatives should be described with the various advantages and disadvantages (and costs) of each. There should be a thorough investigation to see if existing Branch technologies can meet the need. In most cases, it is valuable and worthwhile to include a "do nothing" alternative.

Consistency/Fit With Organization's Mission

Describe how the project fits into Legislative Branch organizational needs. Provide rationale if it does not. The criteria used to evaluate business cases are:

- 1) Does the project improve a business process related to defined Branch objectives?
- 2) Is the expected cost (dollars and personnel) reasonable for the expected outcome?
- 3) Do existing IT resources or assets exist that can meet the need?
- 4) What cost savings (dollars and personnel) will the project deliver? Include this in cost-benefit analysis section below.

- 5) If the project negatively impacts other projects, has priority been considered?
- 6) Does the project "fit" existing Branch IT architecture? If not, what will be done to fit it or mitigate impacts?
- 7) What are the change management requirements for the project?
- 8) Does management/leadership support the project?
- 9) When applicable, does the project "fit" with the Executive Branch IT architecture?
- 10) Are there enough resources (dollars and personnel) available to proceed with the project? If not, when will they be?
- 11) What are the expected consequences if the decision is "no go"?

Cost-Benefit Analysis

Do cost-benefit analysis for all feasible alternatives. For example:

Estimates of costs and the potential savings shown below represent a best effort evaluation utilizing expertise and resources from within the Legislative Branch organization and based on a high-level analysis of information available at this time. The actual results cannot be easily measured or guaranteed and will not be fully realized until the project is completed.

Anticipated Benefits

List all **anticipated benefits** resulting directly from the project. Specify the ways there will be measurable improvement of new capabilities and the implications of NOT doing the project – what benefits will be missed? For example:

The anticipated benefits include:

-
-

Cost Estimate

*Provide a **cost estimate** for the project. Include any special sources for project funding. Are there grants that will be applied for? Are federal funds available? Is a charge-back to the Customers planned? For example, the project may be funded by a specific line item in the budget.*

The following project costs were formed after high-level analysis of the information available at this time. Legislative Branch personnel are (or are not) included in the budget costs.

Project Implementation Costs			
Project Component	Description	Implementation Cost	Ongoing Annual Cost
Hardware		20,000-50,000	
Software		80,000-200,000	
Services		100,000-150,000	
Total Implementation Cost		200,000-400,000	
Total Ongoing Annual Cost			50,000-150,000

Cost/Benefit Analysis

Briefly justify the **costs** for the identified **benefits**. Include quantitative analysis, e.g., calculations of anticipated savings, costs avoided, return on investment, etc. For example:

The following summarizes the potential cost savings and compares them to the overall cost estimates.

Project Cost/Benefit Analysis		
Project Component	Cost	Payback Period
Annual Cost Savings	150,000-250,000	
Ongoing Annual Cost	50,000-150,000	
Net Annual Savings	100,000-200,000	
Implementation Cost	200,000-400,000	
Project Payback Period		1-4 years

Performance Measures

Describe performance measures that will be used to gauge the project's business outcomes for key processes and services.

Project Risks

Identify any risks associated with implementing this project and explain how the risks will be mitigated.

For example:

A risk is a possible undesirable and unplanned event that could result in the project not meeting one or more of its objectives (e.g. functionality, cost, or schedule). Risks associated with implementing this project and the related mitigation actions are identified below.

Risk	Risk Probability (L, M, H)	Risk Impact	Risk Mitigation Plan
Loss of key personnel	L-M	H	Project would continue with current staff, with appropriate re-assignments made. Additional staff may need to be transferred or persons hired to replace personnel leaving. If possible, transitional training could be done by key person leaving. If needed, issue a change request.
Scope changes	M	M	Create 'ISSUE' and if necessary, issue change request.
Technology changes	M	M	Possible training of the project team members. Procure outside vendors. If necessary, issue a change request.

Risk	Risk Probability (L, M, H)	Risk Impact	Risk Mitigation Plan
Resistance to change	M	M	Manage the expectations, consistent communication, continue to get buy-in.
Contractor rates change	L	M	Escalate to procurement officer.
Cost/time overruns	M	H	Identify problem areas based on Gantt Chart, project updates, other project information, that can possibly be adjusted or issue change request.
Hardware cost exceeds budget	M	H	Possible termination and/or delay of project while funding is obtained. If necessary, issue change request.
Lack of staff	M	H	Project would continue with current staff until additional staff is assigned. Adjustments to “Gantt Chart” would be made to reflect impact to schedule. This could require hiring outside consultants or current staff working overtime. If necessary, issue a change request.
Organization loses funding, or does not secure funding	M	H	Termination of project. Plans would need to be drafted for continuance of support for existing systems. Or, if funding is delayed, contingency plans created for delaying start of project(s) to coincide with funding timeframe (or if partial funding, planning to phase the program’s implementation differently).
Product quality	M	H	Tune and make adjustments to product until the product meets the approved design. If necessary, issue change request.

Other Factors, Issues or Concerns

Identify things specific to this project that are relevant but not addressed elsewhere in this document.

Project Recommendation to Proceed

Based on the findings of this business case analysis, it is recommended that this project be undertaken. Add sufficient detail to support this recommendation. Define which alternative(s) were selected and include the rationale for that decision. If dollars are to be expended on this project, the Director of the Office of Legislative Information Technology must approve.

Monetary estimate:

Signature of OLIT Director:

Include one or the other of these recommendations, not both

Project Recommendation to NOT Proceed

Based on the findings of this business case analysis, it is recommended that this project NOT be undertaken. Add sufficient detail to support this recommendation. This could include provisions to delay the project for now, but ultimately proceed (for example, if sufficient resources are not currently available to proceed).

Date of recommendation:

Business case team (list, by name, all major participants):

For each role listed below, provide the names and titles of agency staff that will fulfill them (all that apply).

Role	Name/Title
Executive Sponsor	

Role	Name(s)/Title(s)
Technology Sponsor	

Role	Name/Title
Budget/IT Analyst	
Role	Name(s)/Title(s)
Division/Program Managers	

Role	Name/Title
Information Security Officer	
Role	Name/Title
Procurement Officer	

Role (Other)	Name/Title

Approximate total staff-hours spent on the business case:

Comments:

Appendix D: Security Policy

Information Security Program Charter Document

1. PROGRAM CHARTER PURPOSE

Information is a critical asset for the Legislative Branch of Montana state government. The Legislative Branch's daily operations and the associated delivery of constituent services rely on the confidentiality, integrity, and availability of information.

The growing dependence on information technology and the increased use of information systems and communications networks heighten the risk of compromising the confidentiality, integrity, or availability of certain Legislative Branch information assets. Consequently, the Legislative Branch must ensure that its information assets are consistently protected in a cost-effective manner that effectively reduces the risk of inappropriate exposure, misuse, or loss of data.

The Office of Legislative Information Technology (OLIT) provides essential support of information systems and communication networks used by the Legislative Branch, including its online bill status system. Accordingly, OLIT is responsible for the Legislative Branch's Information Security Program.

This Information Security Program Charter serves as the capstone and empowerment document of the Information Security Program for the Legislative Branch. Furthermore, this charter is provided to summarize the Legislative Branch's attitude and philosophy regarding security and to state the specifics of the Information Security Program mission within the Legislative Branch. Additionally, this charter addresses key program management issues, including scope of applicability, executive ownership, management responsibility, accountability, enforcement, and communication processes.

2. PROGRAM EXECUTIVE SUMMARY

The Information Technology Services Division (ITSD) of the Department of Administration provides functional data network connectivity to all branches, departments, and divisions within Montana's state government. Consequently, ITSD is responsible for network security of the State's primary data network, or backbone, and has consequently developed and implemented a variety of security-related

mandates.¹ However, in accordance with the Montana Constitution,² the Legislative Branch is responsible to exercise its functions independently. Accordingly, OLIT is responsible, among other duties, for ensuring the confidentiality, integrity, and availability of information within the Legislative Branch. As a result, OLIT has appointed the Legislative Branch Information Security Officer (LB ISO) to lead and manage this critical undertaking.

The Legislative Branch's Information Security Program will put into practice a risk management approach for information security. A risk management approach for information security requires the identification, assessment, and mitigation of threats and vulnerabilities to the Legislative Branch's information assets. Consequently, the LB ISO will work in conjunction with the security group of ITSD to ensure the greatest possible confidentiality, integrity, and availability of data within the Legislative Branch and data-sharing between branches.

An essential element of the Information Security Program is the establishment of appropriate channels of communication, authorization, and management regarding Legislative Branch information security issues.

The Legislative Branch Computer System Plan is developed and maintained by the Legislative Branch Computer System Planning Council (CSPC). The CSPC is composed of representatives of the House and Senate, as well as the individual directors of the Legislative Branch Staff Offices representing the user needs of each division. Section 5-11-406, MCA, requires computer hardware and software systems installed by the Senate, the House, and Legislative Branch offices conform to standards established in the Legislative Branch Computer System Plan. Accordingly, it stands to reason that the Legislative Branch Computer System Plan is the logical document in which to incorporate the Information Security Program Charter and subsequent information security standards, policies, and procedures.

The Computer System Plan is presented to the Legislative Council for adoption and therefore, in accordance with section 5-11-405, MCA, this Information Security Program Charter considers the Legislative Council as the appropriate and authorized

¹ **Data Security and Quality**

The State of Montana is committed to data security and the data quality of personally identifiable information that is either available from or collected by governmental web sites, and has taken reasonable precautions to protect personally identifiable information from loss, misuse or alteration. <http://itsd.mt.gov/policy/policies/ENTINT030.asp>

² **The Constitution of the State of Montana Article III, Section 1. Separation of powers.**

The power of the government of this state is divided into three distinct branches—legislative, executive, and judicial. No person or persons charged with the exercise of power properly belonging to one branch shall exercise any power properly belonging to either of the others, except as in this constitution expressly directed or permitted.

body to adopt the Information Security Policy contained in the Legislative Branch Computer System Plan.

3. PROGRAM OVERVIEW

In designing the critical elements of the Legislative Branch Information Security Program, the LB ISO has adopted a two-step approach that, while complementary to the security strategy expressed by the ITSD, is fully focused on the unique business practices, requirements, and concerns of the Legislative Branch.

The initial step for the Legislative Branch Information Security Program is to put into practice a Security Program Development Life Cycle³ methodology intended to create a viable program framework. Thus, the LB ISO has created the Information Security Program development project to initiate this effort. The Information Security Program development project consists of five phases. The phases identified below are foundationally based, but may overlap in the development process.

Phase I: Program Charter and Policy Development

Phase II: Employee Awareness and Education

Phase III: Security Architecture Enhancements

Phase IV: Security Management and Control

Phase V: Security Measurements and Metrics

As the program matures, ultimately at the conclusion of Phase V, the Information Security Program will move into a maintenance stage that subsists on conclusions derived from security incident analysis or security compliance assessments, and there may be a need for refinement of policy and/or procedure, as the situation dictates.

The Legislative Branch Information Security Program intends to incorporate a common hierarchical Security Policy management methodology.⁴ This approach documents the intended security strategy ranging from a very high-level statement of purpose (Program Charter) and cascading down to specific procedures or “how-to” documents for individual Legislative Branch information technology administrators and users.

The Legislative Branch Information Security Program intends to pursue a risk management strategy for protecting information transiting through or stored within the Legislative Branch. Information at risk becomes identifiable through the implementation of a suitable set of organizational structures, controls, policies, processes, and procedures. Accordingly, this strategy requires defining or identifying

³ Access - Analyze - Plan - Implement - Assess - Refine

⁴ Charter - Policy - Procedures - Guidelines

the controls for certain activities associated with information management. Ultimately, the goal is for each identified risk to result in a strategy being devised that will provide a balance between cost to mitigate vulnerabilities and acceptable risk to Legislative Branch information.

Information exists in a variety of forms. Information may be printed from computer memory, written on paper, stored electronically, transmitted through the postal system or by electronic means, or spoken in conversation. Therefore, establishing the distinction between sensitive and nonsensitive information, as well as where and how that information should be stored, transmitted, or shared, is crucial. For that reason, the selected information security controls associated with how people process and store Legislative Branch information must be all-encompassing.

The ISO/IEC 17799 Code of Practice for Information Security Management is an accepted international standard and has been adopted by the LB ISO. The following 10 control areas, based on the ISO 17799 Standard, provide a preview outline of expected Legislative Branch Information Security Policy:

1. Infrastructure Security Management
2. Organizational Asset Management
3. Human Resource Security Management
4. Physical and Environmental Security Management
5. Communications and Operations Management
6. Information Access Control Management
7. Information Systems Security Management
8. Information Security Incident Management
9. Business Continuity Management
10. Compliance Management

Furthermore, the LB ISO has chosen to trust certain recommendations made by the National Institute of Standards and Technology (NIST), Technology Administration, U.S. Department of Commerce, for framing certain procedures and guidelines regarding Information Security issues.⁵

⁵ The Information Technology Laboratory (ITL) at the National Institute of Standards and Technology (NIST) has the broad mission of supporting U.S. industry, government, and academia by promoting U.S. innovation and industrial competitiveness through advancement of information technology measurement science, standards, and technology in ways that enhance economic security and improve our quality of life.

Under the Federal Information Security Management Act, ITL is directed to develop cyber security standards, guidelines, and associated methods and techniques. ITL responsibilities include the development of management, administrative, technical, and physical standards and guidelines for the cost-effective security and privacy of non national-security-related information.

In summary, the Legislative Information Security Program is based on the ISO 17799 Standard for defining policy, and subordinate procedures and guidelines will be supported by NIST recommendations. This tactic provides a comprehensive approach to framing the risk management strategy necessary to protect information within the Legislative Branch. Additionally, this approach corresponds with current efforts under development by ITSD and is therefore complementary to ITSD's effort.

4. PROGRAM SCOPE

This Information Security Program Charter and associated policies, procedures, and guidelines apply to all employees, Legislators, contractors, part-time and temporary workers, and those employed by others that may perform work on State of Montana Legislative Branch premises or who have been granted access to State of Montana Legislative Branch information or information systems.

5. REVIEW AND REVISION

In order to assess adequacy and effectiveness, the Legislative Branch Information Security Program shall be reviewed at least annually, or upon significant changes to the Legislative Branch's organizational or technical environments. The review shall be conducted by an independent third party on behalf of the Computer System Planning Council. As may be adopted by the Legislative Council, all consequential assessment recommendations for improvement shall be incorporated into the forthcoming Computer System Plan as required tasks for completion prior to the next regularly scheduled annual information security assessment.

6. ENFORCEMENT AND EXCEPTION HANDLING

Failure to comply with State of Montana Legislative Branch Information Security Policies, including subordinate procedures, may result in disciplinary actions up to and including termination of employment or termination of contracts for contractors, consultants, and other entities. Furthermore, legal actions (civil or criminal) may be undertaken as appropriate.

The LSD Executive Director reserves the right to take whatever precautions or actions necessary in order to preserve the confidentiality, integrity, and availability of Legislative Branch network, information, and information assets. Upon taking necessary precautions or actions, the LSD Executive Director will inform the Legislative Branch directors and leadership regarding particulars of the situation. Such actions may require implementation of permanent or temporary controls regarding employee access to the Legislative Branch network, information, or information assets.

Where specific or suspected actions of an authorized Legislative Branch user may compromise that or other user's ability to conduct state business appropriately, the

LSD Executive Director shall confer with the appropriate Legislative Branch director to develop and adopt a plan for allowing that user reasonable access. The respective director is responsible for the appropriate administrative action, which may include disciplinary action or termination.

For those Legislative Branch entities that have a business case need for a private network, OLIT will supply a limited (5 - 7 or less) number of systems (PCs/laptops), a switch to connect the systems, and a connection to the Internet (either a connection to the state outside VLAN (wireless or wired)) or a connection to a local Internet Service Provider. OLIT will provide CDs and licenses for any Branch standard software and a ghost image for each system. The entity can load any nonBranch standard software or attach any nonbranch standard hardware it deems necessary to this network. However, the entity is completely responsible for all aspects of this network, including but not limited to: support, security, rehosting, proper licenses for nonbranch standard hardware and software, up-time, etc. **Data sharing of any kind between a private network and the Legislative Branch network is strictly prohibited; any connection of physical devices (including computers, switches, printers, etc.) between a private network and the Legislative Branch network are also strictly prohibited.**