Montana State Library

Information

Technology Plan

FY 2007-2008

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MSL is an agency immersed in Information Technology. It is difficult to extricate MSL's IT plan from its strategic plan, or to discuss its IT goals and objectives as if they are somehow separate from its business goals and objectives. The two are inextricably interrelated.

MSL's content and services improve the quality of life of Montana citizens by providing free access to public information, by supporting community libraries, and by providing government employees quality information to support quality decisions.

MSL's use of technology expands citizens' access to public data that has economic value. MSL provides information that is used by the private sector for economic development, research, education, recreation and conservation.

MSL evaluates and implements new technologies based on their potential to help MSL better serve the information needs of its patrons and partners. MSL implements information technology in an organized, deliberative and cost-effective manner. Montana taxpayers benefit through tax savings associated with appropriate use of IT in government. MSL partners and patrons benefit by having access to high quality content and services.

As an information agency, MSL embraced the use of Information Technology very early, first as *a* means, later as *the* means, to acquire and manage its content and ultimately deliver its content and services to its patrons and partners. MSL's information technology decisions are driven by several fundamental realities:

- MSL must effectively utilize its very limited resources. Embracing IT has enabled MSL to continue, and expand, its service to Montana in the face of budgetary restrictions. MSL serves more patrons each day via its Web services than it can provide personal assistance to in a typical year.

- MSL must meet traditional user needs in new ways. To be effective, MSL has had to ensure that its staff maintains traditional library training and expertise while transitioning that staff to become highly effective IT professionals. MSL now maintains staff with a unique blend of library and IT knowledge and expertise, all with a strong customer focus.

- MSL must remain agile. The world of information management, discovery and access is rapidly evolving. MSL cannot possibly meet this changing need without having on staff the IT professionals who understand and care deeply about the agency business and can quickly respond to customer needs. MSL staff could not have been as effective in meeting these rapidly evolving needs as it has without direct access to MSL's underlying IT infrastructure. Balancing the need for ongoing access and control with the drive to centralize and consolidate IT infrastructure will be a significant challenge.

MSL is uniquely qualified within Montana State government to deal with information related issues in that (1) the agency is governed by a Library Commission, whose members are drawn from across Montana and collectively encompass extensive knowledge of the issues and challenges relating to information access, and (2) the agency and its actions are governed by library law. These two considerations provide the MSL the legal, technical, and ethical basis for managing and ensuring long-term access to government information, for ensuring that government staff have access to the information they need, and for providing assistance to libraries across Montana. Within that framework, MSL recognizes that ITSD, under MITA, has the responsibility to ensure that the use of Information Technology within Montana state government is appropriate and cost effective. We are committed to working with ITSD to ensure that the requirements of MITA are satisfied as we fulfill our various legislative mandates.

As the library for Montana state agencies, our mandate includes assimilating, cataloging, and managing for long-term access the public information generated by state government and the

public information generated by others and needed by state agencies to carry out their business. Geospatial information is an important piece of the overall public information picture, which warrants inclusion in a digital repository managed by the Montana State Library. MSL has housed and facilitated access to geospatial data since the late 1980s, a role in line with its statutory mandates, incorporated in its Library Commission-approved collection plan, and memorialized in the ITSD/MLS MOU governing agency actions regarding GIS. ITSD has lately begun questioning MSL's geospatial data hosting and access role and as a result, the Montana Land Information Advisory Committee (MLIAC) has asked that an assessment be made to ensure roles are properly assigned and carried out. We recognize that an assessment is being made and will cooperate in that effort and follow subsequent directives from the Governor's Office or from the legislature that may affect how we carry out our mandate. However, we do not advocate a change in our role. Our IT Plan, therefore, supports our intentions to continue in the role of hosting and providing access to geospatial data.

Service to Montanans must remain the ultimate measure of MSL success. MSL must remain willing to strive for the best solution to information-related issues, giving proper consideration to cost but recognizing that the cost of IT resources cannot be the ultimate deciding factor.

SECTION 1: AGENCY CONTACT INFORMATION

Agency Name: Montana State Library

Role: Plan Owner

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SECTION 2: AGENCY MISSION & AGENCY IT MISSION

2.1 Agency Mission Statement

The Montana State Library meets the information needs of Montana state government management and staff, ensures that all Montana citizens have access to information created by their government, supports the role of all Montana libraries in delivering quality library content and services to their patrons, works to strengthen local community public libraries, and ensures that Montanans who are blind and physically handicapped are provided access to library resources.

2.2 Agency IT Mission Statement

The Montana State Library effectively employs information technology in acquiring, managing, and providing access to information to ensure that patrons have the data, information, and library services they need, when and where they need them. The Montana State Library's information technology infrastructure is reliable, secure, cost effective, and supports the business requirements of the agency.

SECTION 3: AGENCY PROFILE

3.1 Service Areas

The Montana Talking Book Library (MTBL) provides over 60,000 books and magazines in cassette, Braille, digital audio and electronic formats to all eligible Montana residents. MTBL also digitally records local books, magazines, and other special materials of particular interest or need for eligible Montana residents. These special materials include voters pamphlet, drivers manual (for low vision, physically or reading handicapped) and recorded catalogs of the MTBL audio book collection. Patrons include those being professionally certified to have one or more of the following:

- o Montana residents with low vision (inability to read standard print without aids/devices other than glasses);

- o Montana residents with blindness (20/200 or less in better eye with correcting glasses or widest diameter of visual field subtending an angular distance not greater than 20 degrees);

- o Montana residents who cannot physically hold a standard print book or turn pages (rheumatoid arthritis or other conditions restricting flexibility of bones, muscles and/or nervous system; loss of fingers, hands or arms);

- o Montana residents with reading disabilities caused by an organic dysfunction of sufficient severity as to prevent reading printed material in normal manner (dyslexia or other reading disorders).

Working in partnership with all Montana libraries, **Library Development and the Montana Library Network** promote the delivery of quality networked library materials and services to Montana citizens through standards-based library automation systems, materials, and services. MSL helps libraries work together so that library patrons get what they need.

- o Library Development provides leadership and guidance related to library programs, services, and facilities. A professional staff plans, develops, and implements programs and administers funds for new and improved library services throughout the state.

- o The Montana Library Network (MLN) is a project of the Montana State Library. MLN staff work closely with LDD and other MSL staff.

The Montana State digital Library (MSdL) is a professionally catalogued, maintained and supported collection of state publications, federal publications, reference materials and government data brokered by highly trained library science and information science specialists.   Special content areas within the MSdL include state and federal publications, professional development for librarians and information about Montana's natural resources, geography and biological heritage. Through MSdL:

- o State employees have access to a wealth of library materials relevant to the conduct of state business. State employees benefit from having a staff of professional librarians and information managers at their disposal to aid in their research.

- o Montana citizens and businesses benefit from having permanent access to successive generations of state publications managed by the State Publications Center.

- o 17 depository libraries and the Library of Congress receive copies of state publications from MSL for improved access, disaster backup and preservation.

- o State programs benefit from having a central repository of natural resources information to aid in activities such as research, permitting, mitigation and conservation. Many programs utilize the Natural Resource Information System to meet requirements concerning public disclosure of information findings related to land information and natural resources in Montana.

- o Other Libraries benefit from having access to the MSL collection through the Montana Shared Catalog and the interlibrary loan program.

o Montana citizens and businesses benefit from having access to reputable, timely and accurate data pertaining to Montana's natural resources, geography and biological heritage. The information made available through the Montana State Digital Library has many applications in the private sector including research, recreation and economic development.

Administration handles all personnel, financial, and purchasing functions for the Montana State Library. This group provides administrative and accounting support to the State Library Commission, the State Librarian and MSL employees. This group interacts with the Governor's budget office, legislative services and the Department of Administration.

3.2 IT Service Deficiencies

Montana Talking Book Library

o The expectation for electronic archive storage space needed to store a variety of book formats is rapidly increasing, particularly for locally recorded books and magazines as well as nationally provided bestsellers and popular books. Increased electronic archive storage offers multiple audio book formats free to eligible Montana residents and will broaden the scope of what MTBL can offer. This goes beyond offering audio books only on cassettes.

o Multiple book format choices presents the need to upgrade our current Keystone Automated Library Database to a Microsoft version, requiring a larger and faster server that offers patrons and staff state of the art accessible formats to better serve our patrons.

o In order to offer consistent quality to all eligible patrons, audio book player devices and the above database upgrade may require upgrading staff personal computers on a whole section basis instead of an annual rotation of a few pc's at a time as is currently performed.

o An internal centralized electronic digital request and duplicating center, connected to the National Library Service distribution center database, will be required for rapid duplication and distribution of audio books in different formats to meet various patron demands.

Library Development Department and the Montana Library Network

o Not all Montanans enjoy an adequate level of library services. Insufficient financial wherewithal, lack of training, and geographical isolation contribute to local unequal quality of content and services. Cooperation, collaboration, coordination, and the Internet all can contribute to leveling the playing field for all Montana libraries, and by extension, all Montanans.

Montana State Digital Library:

o MSL cannot plan or dictate when and to what degree other agencies and institutions will place public information assets in the hands of the library. Therefore, it is important that MSL retain the authority and flexibility to encourage and accommodate unplanned data contributions that benefit the state of Montana.

o To better serve the information needs of its patrons, MSdL must employ information portals or web interfaces that supplement the MSdL collection with user-provided content wherein patrons can share their expertise with other patrons by contributing to communities of interest.

o Efforts to be responsive to the needs of the GIS/Natural Resources user communities are hampered by a cumbersome ITPR process and by perpetual challenges to our Geographic Information Clearinghouse mission posed by the GIS Bureau at ITSD.

SECTION 4: AGENCY BUSINESS PLAN

4.1 Primary Business Goals & Objectives

MSL has chosen to complete section 4.2 to fulfill the Agency Business Plan requirement.

4.2 Business Requirements

BR1	• Serve the library needs of Montana citizens who cannot read or use standard print materials because of a visual, physical, or reading handicap. This function includes acquisition and management of audio reading materials in various electronic formats, recording Montana-related materials, and making these materials available to patrons.
BR2	• Provide leadership and guidance related to library programs, services and facilities to all Montana libraries. This function includes planning, developing, and implementing programs and administering funds for new and improved library services throughout the state.
BR3	• Operate a State Publications Center. This function includes acquiring, cataloging, maintaining for long-term availability and providing access to information produced by state agencies.
BR4	• Operate a Natural Resource Information System, Natural Heritage Program, and Water Information System. This function includes acquiring, cataloging, maintaining for long-term access information relating to Montana's natural resources, including information on the status and distribution of our native animals and plants, and Montana's water resources.
BR5	• Serve as the library for Montana State Government. This function includes acquiring, managing and providing access to information in order to support the conduct of state business. This function also includes providing reference, research and referral services to Montana state government employees.
BR6	• Serve as the library for Montana citizens not adequately served by a local library.

4.3 Business Continuity Plan

Agency Disaster Recovery Coordinator: Lucinda Phillips

Various IT initiatives over the past several years have been focused on Business Continuity. These include: acquisition of a SAN and systematic transfer of the MSL collection into the SAN environment; implementation of a larger capacity tape backup system; implementation of a high capacity battery backup system that provides all essential servers with redundant battery backup; implementation of a blade server array; implementation of clustering, load balancing and fail-over on our web servers, mapping servers and database servers; and cross-training staff in critical functions.

MSL's data center is air-conditioned, above-ground, physically secured and sized to meet the agency's needs. MSL has received legislative funding for back-up power and has obtained approval from ITSD to move forward with this project. Expected completion date is September 2006.

The data center is not equipped with fire suppression. We will investigate the possibility of providing fire suppression in the coming biennium.

One of MSL's goals is to develop a formal business continuity plan during the coming biennium.

4.4 Security Program

Physical Access: Essentially all agency systems, aside from desktop computers, are contained within the MSL data center. MSL's data center is locked at all times. Access is limited to system administration team members with individually-assigned keypad codes.

MSL defers to ITSD policies and recommendation concerning unauthorized remote access to systems. We comply with all directives from the Office of Cyber Security regarding security updates and patches.

SECTION 5: RELATIONSHIPS

5.1 Critical Business Relationships

Agency	Relationship
All State of Montana agencies	MSL acquires, catalogs, and maintains state publications for long-term public access. MSL acquires, catalogs and maintains information produced by state agencies about Montana's Natural Resources, Biological Heritage and Geography. MSL offers information services to State Government.
MDT, FWP, DEQ, DNRC, University System. DOA, Ag, and Historical Society, Commissioner of Higher Education	These agencies provide direct funding for MSL's NRIS program and/or participate in the NRIS Advisory Committee.
DEQ, DOJ, DNRC, DPHHS, FWP	These agencies contract with NRIS for specific services in direct support of the MSL mission such as web development or map development in order to provide public access to natural resources, geospatial or biological information produced by the contracting agency.
University of Montana	Beginning July 1, 2006, the University of Montana will begin administering the contract to operate the NRIS Natural Heritage Program. The Nature Conservancy has administered that program under contract with MSL for the last twenty years.
Montana Libraries	MSL provides leadership, training, consultation, consolidated procurement services, marketing assistance, and API services to libraries of all types (and partners such as museums and archives) throughout Montana. MSL maintains close working relationships with the eleven other state agency libraries at the capitol. TBL Partners with local libraries to offer patrons with visual, physical and reading disabilities the best options in reading materials
Federal Natural Resource Agencies	Federal natural resource agencies provide significant data and project funding to NRIS programs as well as being principle users of data and information from MSL.
The MontanaView Consortium	Contracts with NRIS through MSU to develop and host a free, publicly accessible archive of Montana's remotely sensed data.

American Library Association	Many standards and training opportunities originate from ALA. Important advocate for federal allocation of library funding
Institute of Museum and Library Services	IMLS is an independent grant-making agency of the federal government, and is the primary source of federal support for the nation's 122,000 libraries and 15,000 museums. IMLS is the principle source of federal funding for MSL and Montana libraries.
National Library Service	Direct funding source for books, magazines, digital recording software. Provides policy and guidance of operations for MTBL Machine Lending Agency. Provides resources to maintain book collection and equipment.
OCLC Online Computer Library Center	Founded in 1967, OCLC is a nonprofit, membership, computer library service and research organization dedicated to the public purposes of furthering access to the world's information and reducing information costs. MSL purchases several core services from OCLC.
Montana Library Association	MSL works closely with MLA on training, marketing, and advocacy activities
Sirsi/Dynix	Provides the Unicorn integrated library system, backbone of MSL's Montana Shared Catalog. Assists with support, training, maintenance, custom programming, marketing, etc.
NatureServe	Provides database structure, data standards, and database software for the Natural Heritage Program. NHP data are required to be compatible with the Heritage Program Network per MCA 90-15-302 (2)
Montana State Prison	Records content for MTBL: local books, magazines and special projects needed by other state agencies
Montana Historical Society	MSL works closely with MHS, sharing a catalog, life-cycle management and digital content management activities
EBSCO	EBSCO is a vendor providing online content and services to approximately 1/2 to 2/3 of Montana libraries. Works closely with MSL to coordinate access to these online services.
Dimema	Dimema licenses and supports the industry-standard CONTENTdm for digital collection management.
ESRI	GIS software vendor. NRIS extensively utilizes ESRI software.
Gale Group/InfoTrac	Gale is a vendor providing online content and services to approximately 1/2 to 2/3 of Montana libraries. Works closely with MSL to coordinate access to online services.

5.2 Data Exchange Relationships

	Entity	Application/Description
1.	State agencies	State publications are routinely transferred from all state agencies to MSL's state publications center for cataloging and managing for permanent public access.
2.	Historical Society	State publications published in print and no longer desired in the MSL collection are offered to the Historical Society for permanent archive.
3.	State and federal agencies	Geospatial data layers and tabular data extracted from agency databases are routinely transferred from many agencies to MSL for cataloging and managing for permanent public access. The Natural Heritage Program exchanges and integrates biological data with state and federal natural resource agencies on a regular basis.
4.	NatureServe	State Natural Heritage Program data are annually exchanged with NatureServe per MCA 90-15-302 (2) and data agreement between the Montana Natural Heritage Program and NatureServe.
5.	Federal Geographic Data Committee	NRIS is the primary FGDC Clearinghouse node for Montana.
6.	USGS National Map	USGS accesses several layers of the Montana Spatial Data Infrastructure through a map service maintained by MSL.
7.	Geospatial One-Stop	NRIS has implemented a metadata server to facilitate GOS. NRIS maintains metadata records for Montana in GOS.
8.	Libraries	Montana Shared Catalog – transfer of library catalog records into shared catalog and subsequent reliance on catalog to serve individual and collective library needs.
9.	NLS Regional Libraries, Audible, Unabridged and other audio book resources	Provides cooperative IT interlibrary loan access for MTBL patrons, library consortiums offering various digital book formats and equipment to supplement existing audio book collections.
10	Multistate Center West (NLS)	Provides resources to support current MTBL audio book collection in multiple formats.
11	CNIB, RNIB, RFB&B, Bookshare, NLS WebBraille	Provides cooperative IT interlibrary loan access for MTBL patrons, electronic encrypted WebBraille book access for MTBL Braille patrons.
12	Dimema	Z39.50 for exchange of bibliographic information Open Archives Initiative (OAI) Protocol for Metadata Harvesting allows harvesting of metadata across a network. MSL builds resources on Dimema's application. Application servers and storage located at MSL.
13	EBSCO	NCIP for authentication (see Sirsi/Dynix)

5.3 Critical Business Functions

1. Patron Services	7. Internal/External Training
2. Library Development Services	8. Systems Maintenance
3. Collection Access & Distribution	9. Planning
4. Collection Management	10. Human Resources
5. Collection Development	11. Accounting
6. Partnerships and Networking	12. Procurement

5.4 Internal Agency Data Exchange Relationship

	First Functional Area	**Second Functional Area**	**Application**
1.	MSdL	MLN	MSdL contributes records to Montana Shared Catalog
2.	MSdL	MLN	MSdL receives and fulfills interlibrary loan requests; places interlibrary loan requests
3.	MSdL NRIS	MSdL NHP	Transfer information from Oracle to SQL; shared GIS infrastructure including SDE
4.	MSdL LIS	MSdL NRIS	Plan to integrate records and information collections via a common search interface or application

5.5 External Agency Collaboration/Sharing

1.	Project Name:	Montana Shared Catalog
2.	Type of Sharing:	Between Montana libraries, OCLC, global libraries, Sirsi/Dynix
3.	Benefits:	Provides libraries, and library users, with convenient access to library bibliographic records and content; cuts costs for equivalent services; provides unprecedented opportunities for collaborative provision of library content and services
4.	Others Involved:	Other Montana libraries, OCLC, OCLC-W, Sirsi/Dynix
5.	What is the purpose of the Project:	Improve access to and delivery of quality library content and services for all Montanans

1.	Project Name:	Statewide Library Card
2.	Type of Sharing:	Shared access to bibliographic and circulation information; shared authentication structures; shared fulfillment options (including courier services)
3.	Benefits:	Provides users with convenient, individualized, unmediated access and fulfillment to global library resources and services
4.	Others Involved:	Other Montana libraries, OCLC, Other global libraries, Library system vendors
5.	What is the purpose of the Project:	Improve access to and delivery of quality library content and services for all Montanans

1.	Project Name:	Fulfillment (Get It!) Processes Redesign
2.	Type of Sharing:	Resource sharing, Acquisitions, Procurement, Collection Development, Catalog access, authentication
3.	Benefits:	Provides all Montanans with a deep array of library content and services
4.	Others Involved:	Other Montana libraries, OCLC, Other global libraries, Library system vendors, book jobbers
5.	What is the purpose of the Project:	Improve access to and delivery of quality library content and services for all Montanans

1.	Project Name:	Cooperative Collection Development
2.	Type of Sharing:	Collection Development; Acquisitions; MARC records
3.	Benefits:	Stretch Montana libraries' purchase dollars; provide users with a wider variety of materials and services from which to chose
4.	Others Involved:	Other Montana libraries, OCLC, Other global libraries, Library system vendors, book jobbers

5.	What is the purpose of the Project:	Improve access to and delivery of quality library content and services for all Montanans

1.	Project Name:	Unmediated Cross ILS System Borrowing and Lending
2.	Type of Sharing:	Access to and exchange of bibliographic and circulation information
3.	Benefits:	Provide Montana library patrons with more convenient access to a vastly wider array of library content and services
4.	Others Involved:	Other Montana libraries, OCLC, Other global libraries, Library system vendors,
5.	What is the purpose of the Project:	Encourage non-Montana Shared Catalog libraries to allow unmediated patron-initiated interlibrary loan for returnables.

1.	Project Name:	Federated Searching
2.	Type of Sharing:	Ability to search across multiple content sources
3.	Benefits:	Provide Montana library patrons with more convenient access to a vastly wider array of library content and services
4.	Others Involved:	Other Montana libraries, OCLC, Other global libraries, Library system vendors, library content providers
5.	What is the purpose of the Project:	Improve access to and delivery of quality library content and services for all Montanans

1.	Project Name:	Montana Memory Project
2.	Type of Sharing:	With other Montana and global libraries, with historical societies, museums, and archives. MARC, EAD, and XML data.
3.	Benefits:	Provide access to virtual analogs to original source documents, maps, books, et cetera. Save the time of the reader. Provide access to a wide array of content at our users' point of need.
4.	Others Involved:	Other Montana libraries, OCLC, Other global libraries, Library system vendors, library content providers, historical societies, museums, regional digital content collaboratives, archives
5.	What is the purpose of the Project:	Improve Montanans access to quality library materials and services

6.	Project Name:	Open WorldCat
7.	Type of Sharing:	Open WorldCat program makes records of library-owned materials in OCLC's WorldCat database available to Web users in (to date) Google and Yahoo. Links to content in library collections—books, serials, digital images and many other formats—appear alongside links to traditional Web content.

8.	Benefits:	OCLC member libraries are more visible on the Web, and their collections are more accessible from the sites where many people start their search for information.
9.	Others Involved:	OCLC, OCLC-W, BCR, Montana libraries, global libraries
10	What is the purpose of the Project:	Improve access to and delivery of quality library content and services for all Montanans; services delivered to users' point of need

11	Project Name:	Montana Geospatial Metadata Portal
12	Type of Sharing:	Geospatial Data
13	Benefits:	Improved information sharing among agencies and improved access to geospatial data for all
14	Others Involved:	Federal, State and Local government, private industry, non-profits, the public
15	What is the purpose of the Project:	To construct an inventory of Montana's geospatial data assets and to put those who need GIS data in touch with those who have GIS data. Provides a means for the GIS community to contribute metadata records to a common repository so that others can find and access geospatial information assets.

6.	Project Name:	MontanaView Portal
7.	Type of Sharing:	Remotely Sensed Data (satellite imagery) in the public domain
8.	Benefits:	Free public access to MT satellite imagery
9.	Others Involved:	MontanaView Consortium (Montana State University, University of Montana, NRCS, Montana Association of Geographic Information Professionals, USGS, Precision Agriculture Research Association)
10	What is the purpose of the Project:	To implement a free, publicly accessible archive of Montana satellite imagery at the Montana State Library. The images can be viewed and downloaded for use in research, education, conservation, development, planning, permitting, etc…

11	Project Name:	Digital Atlas - Hazardous Waste Generator Data
12	Type of Sharing:	Data; Skills
13	Benefits:	Public
14	Others Involved:	MT DEQ
15	What is the purpose of the Project:	Add data on hazardous waste generators to the MSL Digital Atlas. Test/evaluate direct connection between Digital Atlas and the SDE/Oracle at MT DEQ.

16	Project Name:	Air Web Mapping Application

17	Type of Sharing:	Data; Skills

18	Benefits:	Public

19	Others Involved:	MT DEQ

20	What is the purpose of the Project:	Air Web Mapping Application will allow users view various map layers associated with airsheds and non-attainment areas. Test/evaluate direct connection between MSL Digital Atlas and the SDE/Oracle at MT DEQ.

21	Project Name:	Water Rights Query System
22	Type of Sharing:	Data; Skills
23	Benefits:	Public; Water Rights Adjudication Process
24	Others Involved:	MT DNRC
25	What is the purpose of the Project:	Make information about water rights available to the public

26	Project Name:	Environmental Public Health Tracking
27	Type of Sharing:	Data; Skills
28	Benefits:	Public, Health Professionals, Researchers
29	Others Involved:	MT DPHHS; MT DEQ; Local Governments
30	What is the purpose of the Project:	Make environmental and health-related information more readily available to the public, health professionals and researchers.

31	Project Name:	Clean Water Act Information Center
32	Type of Sharing:	Data; Skills
33	Benefits:	Public
34	Others Involved:	MT DEQ
35	What is the purpose of the Project:	Make water quality reports available to the public

36	Project Name:	Remediation Sites
37	Type of Sharing:	Data; Skills
38	Benefits:	Public
39	Others Involved:	MT DEQ
40	What is the purpose of the Project:	Make information about DEQ remediation sites available to the public.

41	Project Name:	Yellowstone River Corridor Study Web Site

42	Type of Sharing:	Data; Skills
43	Benefits:	Public, Health Professionals, Researchers
44	Others Involved:	MT DNRC; Conservation Districts
45	What is the purpose of the Project:	Make information about the Yellowstone River Corridor Study available to the public and to project participants.

46	Project Name:	Geospatial One-Stop
47	Type of Sharing:	MSL places catalog records relating to Montana geospatial data into GOS.
48	Benefits:	All businesses, individuals, and agencies in need of geospatial data can discover which datasets exist and where they can be obtained through GOS.
49	Others Involved:	Federal Geographic Data Committee, data producers and other clearinghouses throughout the nation.
50	What is the purpose of the Project:	Facilitate discovery of geospatial datasets.

51	Project Name:	Natural Heritage Program (NHP) MCA 90-15-302
52	Type of Sharing:	Producers of biological and habitat data routinely transfer data into the NHP databases. NHP routinely provides data sets, information, and scientific analyses and assistance to partners and users. NHP also annually exchanges state , national, and global data with NatureServe.
53	Benefits:	The benefit is a central repository of Montana's biological and habitat data integrated with global information as well as improved access to data and information; reduction of duplication of effort; improved accuracy and currency of data; and a, better understanding of data gaps and priorities for filling them,
54	Others Involved:	State and federal natural resource agencies, university system, other data producers and users.
55	What is the purpose of the Project:	As a statutory program of the State Library, the Natural Heritage Program is Montana's source for information on Montana's native species and habitats, emphasizing those of conservation concern. NHP collects, validates, and distributes this information, and assists natural resource managers and others in applying it effectively.

56	Project Name:	Natural Resource Information System (NRIS) MCA 90-15-301
57	Type of Sharing:	Producers of natural resource and related data and information routinely transfer data into the NRIS databases. NRIS routinely provides raw data sets and data summaries to partners and users. NRIS also exchanges data with National partners to facilitate discovery and access.

58	Benefits:	The benefit is a central repository of Montana's natural resource data and information, including the Montana Spatial Data Infrastructure and other important geospatial datasets, improved access to data and information, reduction of duplication of effort, improved accuracy of data, better understanding of data gaps and how to fill them, long-term maintenance of these important data, and eventual archival.
59	Others Involved:	State and federal agencies, the university system, other data producers and users.
60	What is the purpose of the Project:	To operate a statutory program for the acquisition, storage and retrieval of information relating to the natural resources of Montana.

61	Project Name:	Government Publications Center
62	Type of Sharing:	All state agencies routinely transfer their publications into the MSL state publications center; the Federal depository library program routinely transfers a selected subset of federal publications into the center. The center provides copies of each to a system of depository libraries across Montana. The center currently places a copy of each state publication in a repository operated by OCLC; however the method of management of these publications may change over time.
63	Benefits:	The benefit is a central repository of Montana state publications, improved access to these publications, reduction of duplication of effort, long-term maintenance of these important publications, and eventual archival.
64	Others Involved:	All state agencies, Montana Historical Society for eventual archival.
65	What is the purpose of the Project:	Permanent public access to Montana state publications; improved access to federal publications of interest to Montana government officials.

66	Project Name:	Low Complexity Mastering System (LCM) Digital Recording Program (DRP)
67	Type of Sharing:	Libraries for the Blind and Physically Handicapped (LBPH) having the LCM DRP share digital mastering components of each others systems.
68	Benefits:	The LCM DRP is evolving in its design to eventually provide cooperating LBPH access to each others digital masters through a central distribution system.
69	Others Involved:	NLS Distribution Center-West
70	What is the purpose of the Project:	To offer the best quality audio recording books and magazines to blind and physically handicapped patrons throughout the U.S.

| 71 | Project Name: | Lobe Library Project |

72	Type of Sharing:	Collective resources purchased electronic unabridged digital audio books, software and compatible playback equipment
73	Benefits:	Access to alternative digital audio book formats.
74	Others Involved:	A consortium of six LBPH including Illinois, Hawaii, Mississippi, New Jersey, Idaho and Montana TBL in contract with Audible.com.
75	What is the purpose of the Project:	Offer a broader range of accessible digital audio books to patrons.

76	Project Name:	Low Vision Montana
77	Type of Sharing:	Collective resources of MTBL,other state agencies and organizations dedicated to bringing a variety of services to rural Montanans with low vision.
78	Benefits:	Education, independence and access to resources for rural Montanans with low vision.
79	Others Involved:	BLVS, MAB, MILP, Lions Club, MOA, MAO, Low Vision consumers, Aging Services and others
80	What is the purpose of the Project:	Improve accessibility resources to information and services for Montanans with low vision

81	Project Name:	MTBL Summer Reading Program
82	Type of Sharing:	MTBL and Public libraries share combined accessible book resources to student patrons involved in the statewide Montana Summer Reading Program.
83	Benefits:	MTBL patrons will receive the best possible book resources, activities to increase reading skills and community support and inclusion.
84	Others Involved:	Parents of students participating.
85	What is the purpose of the Project:	Involve MTBL patrons in improving reading and communication skills on a local and state level.

SECTION 6: AGENCY IT PLAN

6.1 Goals/Requirements

Goal Number 1: Develop IT Resources in an Organized, Deliberate and Cost Effective Manner

ITG 1

Description: Montana State Library uses information technology to support our Agency Business Plan. MSL evaluates new technologies based on their potential to help MSL better serve the information needs of its patrons and partners. MSL implements information technology in an organized, deliberative and cost-effective manner.

Benefits: Montana taxpayers benefit through tax savings associated with appropriate use of IT in government. MSL partners and patrons benefit by having reliable access to high quality content and services. MSL staff benefit by having the resources they need carry out their work.

Supports Agency Business Requirements: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goals: 1, 2, 3, 4 and 5

Goal 1: MSL's use of technology expands citizens' access to public, non-confidential data that has economic value. MSL provides information that is used by the private sector for economic development, research, education, recreation and conservation.

Goal 2: MSL's decisions and actions in regards to information technology support the overall state goal of developing IT resources in an organized, deliberative and cost-effective manner.

Goal 3: MSL's content and services improve the quality of life of Montana citizens by providing free access to public information, by supporting community libraries, and by providing government employees quality information to support quality decisions.

Goal 4: MSL's decisions and actions in regards to information technology support the overall state goal of protecting individual privacy and the privacy of information contained within IT systems.

Goal 5: MSL's use of information technology improves public access to government information and supports the expansion of geographic information technologies in government services.

Timeframe for completion: Ongoing

Supporting Objective

ITO 1-1   Maintain the agency information technology plan.

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goal: 2, 5

Objective: Keep the information technology plan current and use it as a tool for the organized, deliberative and cost-effective use of information technology throughout the agency.

Benefits: Montana taxpayers benefit through tax savings associated with appropriate use of IT in government. MSL partners and patrons benefit by having reliable access to high quality content

and services. MSL staff benefit by having the resources they need carry out their work.

Measures: Montana State Library complies with the state IT planning cycle for 2006 – 2010.
MSL's information technology expenditures in this period align with the agency IT plan and the
State of Montana Information Technology Plan.

Timeframe for completion: 2006 - 2010

Supporting Objective

ITO 1-2   Budget and plan for the maintenance and replacement of Information technology
assets.

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goal: 2,5

Objective: Hardware and software assets are covered by maintenance plans and warranties and are
replaced on a timely basis.

Benefits: Montana taxpayers benefit through tax savings associated with appropriate use of IT in
government. MSL partners and patrons benefit by having reliable access to high quality content
and services. MSL staff benefit by having the resources they need carry out their work.

Measures: Hardware and software assets are covered by maintenance plans and warranties and are
replaced on a timely basis.

Timeframe for completion: Ongoing

Supporting Objective

ITO 1-3   Consult with Department of Administration to evaluate and implement new
information technology solutions to support the Montana State Library Business
Plan.

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goal: 1, 2, 3, 4, 5

Objective: Consult with Department of Administration to evaluate new information technology
solutions that support the Montana State Library Business Plan. Work together with ITSD to
make sure new technology solutions are implemented according to best practices, are compatible
with the State telecommunications network and are aligned with State policies and directives.

Benefits: Montana taxpayers benefit through tax savings associated with appropriate use of IT in
government. MSL partners and patrons benefit by having access to high quality content and
services. MSL staff benefit by having the resources they need carry out their work.

Measures: Information technology projects and implementations receive endorsement or
approval by ITSD.

Timeframe for completion: Ongoing

Supporting Objective

ITO 1-4   Stable Learning Organization

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goal: 1, 2, 3, 4, 5

Objective: Create a stable learning organization through investment in training and professional

development for employees. Develop training plans for each IT employee and take advantage of opportunities for professional development.

Benefits: Montana taxpayers benefit through tax savings associated with appropriate use of IT in government. MSL partners and patrons benefit by having reliable access to high quality content and services. MSL staff benefit by having the resources they need carry out their work.

Measure: Each technical staff takes advantage of at least one significant training or professional development experience per year.

Timeframe for completion: Ongoing

Supporting Objective

ITO 1-5   Increase Central IT Staff

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goal: 1, 2, 3, 4, 5

Objective: Obtain legislative approval to increase central IT staff to reduce reliance on program staff for IT support functions.

Benefits: Montana taxpayers benefit through tax savings associated with appropriate use of IT in government. MSL partners and patrons benefit by having reliable access to high quality content and services. MSL staff benefit by having the resources they need carry out their work.

Measures: FY2007 Approval of agency EPP request for one additional FTE. FY09 Approval of EPP request for additional staff (as necessary to meet evolving needs).

Timeframe for completion: Ongoing

Supporting Objective

ITO 1-6   Participation in State IT Governance

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goal: 1, 2, 3, 4, 5

Objective: Actively participate in all IT governance groups that have relevance to MSL.

Benefits: Montana taxpayers benefit through tax savings associated with appropriate use of IT in government. MSL partners and patrons benefit by having reliable access to high quality content and services. MSL staff benefit by having the resources they need carry out their work.

Measures: Director or MSL-CIO attendance at ITB, E-Gov Advisory Council and MLIAC. CIO or systems administrator attendance at ITMC. GIS Manager attendance at GIS Manager Group.

Timeframe for completion: Ongoing.

Goal Number 2: Expand Online Information Services

ITG 2 Montana State Library strives to provide high-quality information services that can be accessed anytime, anywhere via the worldwide web.

Benefits: Montana's libraries, government employees, citizens and businesses obtain high quality information services via the web.

Supports Agency Business Requirements: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goals: 1, 3 and 5

Goal 1: MSL's use of technology expands citizens' access to public, non-confidential data that has economic value. MSL provides information that is used by the private sector for economic development, research, education, recreation and conservation.

Goal 3: MSL's content and services improve the quality of life of Montana citizens by giving them free access to public information, by supporting community libraries and by providing government employees with quality information to support quality decisions.

Goal 5: MSL improves government services by delivering quality information services via the web. MSL operates the Montana Geographic Information Clearinghouse which promotes the sharing of geographic data across the state Enterprise. MSL shares GIS expertise and GIS data resources with agencies considering geographic technology and data in the design of new systems and services.

Montana taxpayers benefit through tax savings associated with appropriate use of IT in government. MSL partners and patrons benefit by having reliable access to high quality content and services. MSL staff benefit by having the resources they need carry out their work.

Timeframe for completion: Ongoing

Supporting Objective

ITO 2-1   Improve the overall design and usability of MSL websites.

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goals: 1, 3 and 5

Objective: Improve the overall design and usability of the MSL website.

Benefits: Government employees, library patrons, citizens and businesses by having reliable access to high quality content and services via the web.

Measures: An increasing percentage of patrons surveyed report satisfaction with the MSL websites and web services.

Timeframe for completion: Ongoing

Supporting Objective

ITO 2-2   Develop new online information services in partnership with other organizations.

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goals: 1, 3 and 5

Objective: Collaborate with partners on projects which increase citizen access to public information.

Benefits: Government employees, library patrons, citizens and businesses by having reliable access to high quality content and services via the web.

Measures: Montana citizens and businesses increasingly use new online information services developed by MSL and its partner agencies and report satisfaction with these services.

Timeframe for completion: Ongoing

Supporting Objective

ITO 2-3   Provide online interfaces that allow partners to co-manage topic pages and community forums on the MSL website.

Supports Business Requirement: B2, B3, B4, B5, B6

Supports/Implements State IT Goas: 1, 3 and 5

Objective: Provide online interfaces that allow partners to co-manage topic pages and community forums on the MSL website.

Benefits: Government employees, library patrons, citizens and businesses by having reliable access to high quality content and services via the web.

Measures: Partner agencies, citizens and businesses increasingly use topic pages and community forums on the MSL website and report satisfaction with these services.

Timeframe for completion: 2007

Supporting Objective

ITO 2-4   Provide online interfaces that encourage partners to contribute to the Montana Geographic Information Clearinghouse, the Montana Memory Project, the Montana Shared Catalog and the State Publications Center.

Supports Business Requirement: B2, B3, B4, B5, B6

Supports/Implements State IT Goals: 1, 3 and 5

Objective: Make it as easy as possible for partners to contribute content to the Montana Geographic Information Clearinghouse, the Montana Memory Project, the Montana Shared Catalog and the State Publications Center.

Benefits: Government employees, library patrons, citizens and businesses by having reliable access to high quality content and services via the web.

Measures: The Montana Geographic Information Clearinghouse expands. The Montana Memory Project collection grows. The Montana Shared Catalog grows. The State Publications Center collection grows. Contributors report satisfaction with the online interfaces they use to contribute content to Montana State Library.

Timeframe for completion: 2007-2008

Supporting Objective

ITO 2-5   Develop and implement integrated keyword and geographic search tools for

accessing the entire MSL Collection.

Supports Business Requirement: B3, B4, B5, B6

Supports/Implements State IT Goals: 1, 3 and 5

Objective: Develop and implement integrated keyword and geographic search tools for accessing the entire MSL Collection.

Benefits: Government employees, library patrons, citizens and businesses by having reliable access to high quality content and services via the web.

Measures: Patrons can discover and access information using online search tools that combine results from the Montana Geographic Information Clearinghouse, the State Publications Center, the MSL Catalog and the Montana Natural Resource Information System. Users report satisfaction with the integrated keyword and geographic search tools.

Timeframe for completion: 2007-2008

Supporting Objective

ITO 2-6   Implement Montana geo-spatial metadata portal technology and a Montana geo-spatial metadata inventory system to aid in the identification and distribution of Montana's geo-spatial data assets.

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goals: 1, 3 and 5

Objective: Implement Montana geo-spatial metadata portal technology and a Montana geo-spatial metadata inventory system to aid in the identification and distribution of the Montana's geo-spatial data assets.

Benefits: Government employees, library patrons, citizens and businesses by having reliable access to high quality content and services via the web.

Timeframe for completion: 2006-2007

Supporting Objective

ITO 2-7   Survey website users annually to gather feedback and direction from the MSL patron community.

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goals: 1, 3 and 5

Objective: Survey website users annually to gather feedback and direction from the MSL patron community.

Benefits: Website users have an additional avenue to provide feedback to MSL regarding content and services. MSL benefits from having an additional source of feedback regarding web information services.

Measures: Each MSL program surveys its user community annually, including questions targeted to web site usage and satisfaction.

Timeframe for completion: Ongoing

Goal Number 3: Business Continuity

ITG 3   The MSL Data Center will continue to be managed according to best practices to ensure high-availability, reliability and continuity of services.

Description: MSL will use best practices in the implementation and management of hardware, software, network and facilities components of the MSL Data Center.

Benefits: Montana taxpayers benefit through tax savings associated with appropriate use of IT in government. Government employees, library patrons, citizens and businesses by having reliable access to high quality content and services.

Supports Agency Business Requirements: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goals: 1, 2, 3, 4 and 5

> Goal 1: MSL's use of technology expands citizens' access to public, non-confidential data that has economic value. MSL provides information that is used by the private sector for economic development, research, education, recreation and conservation.

> Goal 2: MSL's implementation of best practices support the overall state goal of developing IT resources in an organized, deliberative and cost-effective manner.

> Goal 3: MSL's content and services improve the quality of life of Montana citizens by providing free access to public information, by supporting community libraries, and by providing government employees quality information to support quality decisions.

> Goal 4: MSL's decisions and actions in regards to information technology support the overall state goal of protecting individual privacy and the privacy of information contained within IT systems.

> Goal 5: MSL uses the web extensively to deliver quality information services. In doing so, MSL complies with all state IT policies and directives concerning e-government and web services.

Timeframe for completion: Ongoing

Supporting Objective

ITO 3-1   Develop and maintain current documentation for all hardware, software, databases and applications residing in the MSL Data Center.

Supports Business Requirement B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goal: 1, 2, 3, 4 and 5

Objective: Develop and maintain current documentation for all hardware, software, databases and applications residing in the MSL Data Center.

Benefits: Government employees, library patrons, citizens and businesses by having reliable access to high quality content and services. MSL employees benefit from having the resources they need to perform their duties.

Measures: Each MSL server, application and database passes an audit of system documentation including server configuration, software configuration, database schema, , active and latent processes, start-up procedures, back-up procedures, change logs and disaster

recovery procedures. Dated versions of this information are stored in the MSL IT Desk Reference and made available on the agency intranet for technical employees.

Timeframe for completion: September 30, 2006

Supporting Objective

ITO 3-2   Implement a change management policy covering all aspects of the MSL Data Center including facilities, network, hardware and software.

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goal: 1, 2, 3, 4 and 5

Objective: Implement a change management policy covering all aspects of the MSL Data Center including facilities, network, hardware and software.

Benefits: Government employees, library patrons, citizens and businesses by having reliable access to high quality content and services.

Measures: MSL develops a procedure for approving changes to the MSL Data Center Environment and keeps accurate records regarding changes.

Timeframe for completion: December 2006

Supporting Objective

ITO 3-3   Implement and maintain a back-up power generator for the MSL Data Center

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goal: 1, 2, 3, 4 and 5

Objective: Implement a back-up power generator for the MSL Data Center, test the system, and begin a schedule of monthly maintenance and system checks.

Benefits: Government employees, library patrons, citizens and businesses by having reliable access to high quality content and services.

Measures: MSL Back-Up Power project completed by September 30, 2006. System passes quarterly readiness tests and receives regular maintenance.

Timeframe: September 2006

Supporting Objective

ITO 3-4   Develop and maintain a disaster recovery plan for the MSL Data Center.

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goal: 1, 2, 3, 4 and 5

Objective: Develop and maintain a disaster recovery plan for the MSL Data Center outlining the current environment, risks and back-up procedures as well as recovery procedures.

Benefits: Government employees, library patrons, citizens and businesses by having

reliable access to high quality content and services. MSL employees benefit from having the resources they need to carry out their work.

Measures: MSL complies with ITSD requirements for a disaster recovery plan. The plan passes quarterly audits for completeness.

Timeframe for completion: December 2005

Supporting Objective

ITO 3-5   Implement an on-call policy that includes on-call pay and periodic training for on-call employees.

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goal: 1, 2, 3, 4 and 5

Objective: Implement an on-call policy that includes on-call pay and periodic training for on-call employees

Benefits: Government employees, library patrons, citizens and businesses by having reliable access to high quality content and services.

Measures: On-call employees receive training in agency disaster recovery procedures. On-call employees are trained at least quarterly. At least three staff are qualified to serve on-call at any given time.

Timeframe for completion: December 2006

Goal Number 4: Desktop Computer Support

ITG 4   Desktop Computer Environment

Description: IT staff will provide friendly, efficient and effective information technology support services to MSL employees and volunteers.

Benefits: MSL employees, volunteers, partners and patrons

Supports/Implements Agency Goal or Requirement: B1, B2, B3, B4, B5, B6

Implements State IT Goals/Initiatives By:

> Implements Goal 1 by expanding citizens' access to public, non-confidential data that has economic value. MSL provides information that is used by the private sector for economic development, research, education, recreation and conservation.

> Implements Goal 2 through the use of best practices regarding desktop and network support and cost effective management of IT resources.

> Implements Goals 3 and 5 through improving the abilities of MSL staff and volunteers to respond to information requests from Montana citizens and businesses.

> Timeframe for Completion: Ongoing

Supporting Objective

ITO 4-1   Implement and maintain file and print services to support the work of Montana State Library employees, partners and volunteers.

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goal: 1, 2, 3, 5

Objective: Move MSL's file and print service back to MSL data center.
Follow best practices regarding management of file and print services.

Benefits: MSL employees and volunteers benefit by having adequate, reliable file and print service to support their work.

Measures: File and print services moved back to MSL by September 2006.

Timeframe for completion: Summer 2006

Supporting Objective

ITO 4-2   Provide friendly and efficient desktop and network support services to Montana State Library employees, partners and volunteers.

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goal: 1, 2, 3, 5

Objective: Provide friendly and efficient desktop and network support services to Montana State Library employees, partners and volunteers.

Benefits: MSL employees and volunteers benefit by having an adequate, reliable desktop computing environment.

Measures: Users report satisfaction with MSL desktop and network support services.

Timeframe for completion: Ongoing

Supporting Objective

ITO 4-3   Implement best practices in the management of the hardware and software components of the MSL desktop computing environment.

Supports Business Requirement: B1, B2, B3, B4, B5, B6

Supports/Implements State IT Goal: 1, 2, 3, 5

Objective: Implement best practices in the management of the hardware and software components of the MSL desktop computing environment. Comply with information technology policies, directives and standards issued by the Montana Department of Administration concerning desktop and network support.

Benefits: MSL employees and volunteers benefit from a stable reliable desktop computing environment.

Measures: Users report satisfaction with MSL desktop support. The MSL desktop computing environment complies with information technology policies, directives and standards issued by the Montana Department of Administration concerning desktop and network support.

Timeframe for completion: Ongoing

6.2 Risks

Risk 1: Uncertain Funding. If funding is reduced from any of MSL's funding streams, then corresponding sections of the IT plan may not be accomplished. Mitigation strategies include monitoring of the plan and each funding streams to determine if both are on target, seeking alternate funding when necessary, and altering the plan.

Risk 2: Inability to recruit and/or retain highly skilled information technology staff.   MSL recently adopted broadband pay scale to enable an increase in salary for key personnel. At this time, an existing IT position is being kept open to fund the program. To mitigate the situation, existing staff cross-trained in critical functions and schedules are adjusted when possible to ensure coverage of key functions. Full funding of the broadband pay plan and the addition of an additional information technology FTE are two of MSL's high priority funding items for consideration by the legislature.

Risk 3: Loss of direct control over our supporting IT infrastructure. The world of information management, discovery and access is rapidly evolving. MSL cannot possibly meet this changing need without having on staff the IT professionals who understand and care deeply about the agency business and can quickly respond to customer needs. MSL staff could not have been as effective in meeting these rapidly evolving needs as it has without direct access to MSL's underlying IT infrastructure. Balancing the need for ongoing access and control with the drive to centralize and consolidate IT infrastructure will be a significant challenge. We are committed to working with ITSD to ensure that the requirements of MITA are satisfied as we fulfill our various legislative mandates; however, service to Montanans must remain the ultimate measure of MSL success. MSL must remain willing to strive for the best solution to information-related issues, giving proper consideration to cost but recognizing that the cost of IT resources cannot be the ultimate deciding factor.

SECTION 7: ENTERPRISE ALIGNMENT

7.1 State Strategic Plan for IT Alignment

MSL Goals and Objectives align with the State Strategic Plan for IT are described in Section 6.

MSL IT Activities align with the State Strategic Plan for IT as indicated in Section 10.

7.2 Standards/Compliance Issues

MSL has no known issues of non-compliance.

SECTION 8: EXPENDITURES

8.1 Planned Agency IT Expenditures

Expense Category	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011
Personal Services	591,899	845,371	900,371	927,382	987,382	1,017,003
ITSD Contracted Services	107,024	110,169	112,783	112,783	112,783	112,783
Other State Agency Contracted Services	0	0	0	0	0	0
Outside Contracted Services	0	0	0	0	0	0
Hardware	26,098	31,031	40,000	40,000	40,000	40,000
Telecommunications						
Software	16,544	8,004	20,000	20,000	20,000	20,000
Maintenance	39,623	35,854	39,700	40,000	40,000	40,000
Training	10,000	8,396	10,000	10,000	10,000	10,000
Miscellaneous						
Totals	791,188	1,038,825	1,122,854	1,150,165	1,210,165	1,239,786

8.2 Total Agency Budget

	FY2006	FY2007	FY2008	FY2009
Total Agency Budget	5,520,195	3,524,289	5,941,480	3,941,480

8.3 Augmented IT Funding

Source	Fiscal Year	Amount	Project/Spend Item

8.4 Staffing

Job class code	Job Title	A. Number of authorized FTEs within agency	B. Number of FTEs performing IT outside of IT units	C. Number of contracted IT FTEs	D. Total (A+B+C)	Rank most difficult to recruit and train (1 = most difficult; 2 = next most difficult; etc.)
1132nn	IT manager	1.5			1.5	
15111n	IT Supervisor					
1512nn	Programmer	6		.25	6.25	2
15123n	QA analyst					
15131n	Systems Engineer					
15133n	Application Engineer					
1514nn	Support Technician,					
1514nn	Support Specialist					
151133A	Website Engineer					
15133B	Programmer Analyst					
15142B	Help Desk Analyst					
15142C	IT Methodology Technician					
15142E	Tech Support Analyst		.50		.50	
1515nn	Systems Analyst	2			2	
1516nn	Database Analyst		1		1	
1517nn	Network Administrator					
15173n	Security Specialist					
1518nn	Network Systems Analyst	1	1		2	1
15183n	Telecommunications Specialist					
15183B	Network Engineer					
15193D	Systems Architect					
43902n	Data Center Operator					
4391nn	Computer Operator					
1318nn	Management Analyst					
	Other					
	Other					
	Other					
	Total	10.5	2.5	.25	13.25	

Agency FTEs _____39.75_____

8.5 Staffing Shortfalls

Time Frame	IT Staffing Challenge
Ongoing	MSL MLN/LDD lacks sufficient staff to adequately complete the virtual reference project, the Montana Memories project, or to support the Montana Shared Catalog if it increases in size to more than 120 libraries. Additional staffing will be sought in pursuit of these projects.
Ongoing	MSL has historically supported its IT infrastructure through a team approach involving IT staff from all parts of the agency. As MSL's dependency on its IT infrastructure grows and the sophistication of its infrastructure grows, the need for dedicated IT staff increases. MSL has an EPP item in for the 08/09 biennium for one additional FTE to support the overall needs of the agency and will likely desire to add more staff as dependence on its internal IT infrastructure continues to grow.
Ongoing	NRIS has historically partially supported its staff through contracts with other agencies relating to natural resource information access. These contracts tend to divert resources from NRIS core functions, and NRIS core functions are showing the effects. MSL has an EPP item in for one additional FTE to support the NRIS program in 08/09 and will likely desire to add more staff as dependence on this program continues to grow.
Ongoing	As electronic format becomes the primary method of production for state publications, MSL's responsibility to acquire and manage for long-term access all state publications will require additional staff having IT expertise. MSL has an EPP item in for one additional FTE to support the state publications program in 08/09 and will likely desire to add more staff as dependence IT expertise within this program continues to grow.

SECTION 9: IT INITIATIVES (FY2006-2011)

9.1 Initiatives

N/A

9.2 Initiative Interdependencies

N/A

SECTION 10: IT ACTIVITIES

10.1 Activities

ID	Description	Start	End	Cost
A1	Expand Storage: Typically, MSL data storage needs have grown in spurts as opposed to gradually over time, as they often relate to acquisition of a new collection or data set that requires significant storage. Alignment with State Goals: 2	2007	2010	$40,000
A2	State Publications Repository Solution: Evaluate and implement a permanent technology solution for the State Publications Center. The program is currently using the OCLC Digital Archive. Other possible solutions may require the use of open-source software. Alignment with State Goals: 1,2,3,5	2007	2009	$40,000
A3	Online mapping applications: Rework core MSdL web applications as a single application or as an integrated set of applications. This in-house development project would likely include the following existing applications: Montana Maps, Digital Atlas, TopoFinder, Data Bundler, and Data List. Alignment with State Goals: 1,2,3,5	2007	2009	$20,000
A4	Montana Memory Project: Manage hardware and software used for the Montana Memory project, participates a leader in the Montana Memory Project and steadily adds digital content. Alignment with State Goals: 1,3,5	2007	2010	$40,000
A5	Federated Searching: Montana State Library/MLN will implement federated searching technology to provide access to a variety of knowledge resources (library catalogs, periodical articles, databases, field guides, photographs, archival finding aids, et cetera). Alignment with State Goals: 1,3,5	2007	2010	$20,000
A6	Single Search Mechanism for MSDL Content: Implement a single search interface which allows a keyword or geographic search of all MSDL content and media types (state publications, documents, books, maps and geographic datasets). Alignment with State Goals: 1,3,5	2007	2010	$60,000

A7	Geospatial Metadata Portal: Montana State Library will implement and manage a Montana Geospatial Metadata Portal to aid in the inventory and distribution of Montana's geo-spatial information assets. Alignment with State Goals: 1,2,3,5	July 2006	March 2007	$30,000
B1	Digitization of print resources. To improve access to the MSL collection and to better utilize physical space. The project may be contracted; however, if it appears that a long-term and on-going digitizing effort is needed, it may be cost effective to obtain the resources to perform these operations in-house. Alignment with State Goals: 1,3,5	2007	2010	$40,000
B2	Statewide Library Card: Evaluate technological solutions for joining several regional shared catalogs using standards such as NCIP and Z39.50 in order to allow unmediated borrowing. May require a 'go between' service in order to reduce ongoing costs brought about by many-to-many data interchange relationships. Alignment with State Goals: 1,2,3,5			
B3	Online Subscriptions: Montana adds shared online subscription resources as needed to serve agencies. Alignment with State Goals: 1,2,3,5	2007	2010	$30,000
B4	Distance Training: MSL uses an integrated approach to training, including a variety of training modalities (face-to-face, online tutorials and interactive training, 'webinars', training manuals, buddy systems, et cetera), in an effort to assure learning. Alignment with State Goals: 1,2,3,5	2006	2010	$5,000
B5	One-click Authentication: Montana library users are provided authenticated access to all their library's knowledge resources. Alignment with State Goals: 1,2,3,4,5	2007	2010	
B6	Magazine Database: Issue an RFP to provide a periodical database for Montana libraries for the period of September 2007 through August 2009. Alignment with State Goals: 1,2,3,5	2006	2007	

B7	MLNCAT: Continue to support the MLNCAT and encourage use of the system. Alignment with State Goals: 1,2,3,4,5	2006	2010	
B8	Local Indexes: MLN will continue to provide infrastructure and support for local indexes for the Missoulian and other Montana publications. Alignment with State Goals: 3			
C1	Collection Development: Professional Development Based on input from librarians statewide, MSL's collection of professional development materials for librarians grows by 5% per year. Some of this content will be electronic. Alignment with State Goals: 1,2,3,5	2006	2010	$4,000
C2	Collection Development: MTBL Conversion of MTBL analog audio books to digital LCM format (may require additional storage) Alignment with State Goals: 1,2,3,5	2006	2008	$10,000
C3	Collection Development: MTBL Storage of 20% of NLS future digital archives (may require additional storage) Alignment with State Goals: 1,2,3,5	2006	2010	$10,000
C4	Collection Development: Remotely Sensed Data. Based on input from MSL/NRIS patrons and our partnership with the MontanaView Consortium, MSL will receive and maintain an extensive collection of publicly available remotely-sensed data, including but not limited to LandSat and Astor images. Alignment with State Goals: 1,2,3,5	2006	2007	$60,000
C5	Collection Development: Time-Series GIS Datasets Based on input from MSL/NRIS patrons, MSL will establish and maintain a time-series archive of selected MSDI framework layers. Alignment with State Goals: 1,2,3,5	2006	2010	$20,000
C6	Collection Development: GIS Imagery Datasets Imagery Datasets Based on input from MSL/NRIS patrons, MSL receives, catalogs and maintains for public access a collection of all publicly available statewide or large regional geo-referenced raster datasets, such as natural color or Color infrared orthophotography, DOQs, DOQQs, DEMs, etc… and	2006	2010	$20,000

	makes them available using web services, metadata portal entries and other technologies. Alignment with State Goals: 1,2,3,5			
C7	Collection Development: Aerial Imagery Based on input from MSL/NRIS patrons, MSL will establish and maintain a collection of historical aerial photography which grows by 20% per year. Alignment with State Goals: 1,2,3,5	2007	2010	$30,000
D1	Co-managed websites/Topic Pages: Provide interfaces for partner content experts to co-manage web pages organized around a topic. Alignment with State Goals: 1,2,3,5	2006	2007	$5,000
D2	Social and Collaborative Technologies: Provide interfaces for librarians and other partners and patrons to conduct online forums, communities of interest and trainings. Alignment with State Goals: 1,2,3,5	2007	2010	$10,000
D3	Linux test environment: Install a system, including servers, storage, and operating system software for the purpose of evaluating open-source library technologies for applications such as the State Publications repository. Alignment with State Goals: 2,5	2006	2008	$5,000
D4	Collaboration and Innovation Montana State Library will continue to participate in collaborative projects to develop innovative information services that benefit all Montanans. This may include additional application development projects not described elsewhere in this plan or the purchase of additional hardware and software solutions. These projects are generally funded by grants or contracts with libraries, the Montana Library Network or other state/federal agencies. Alignment with State Goals: 1,2,3,4,5	2006	2010	

10.2 Videoconferencing Capability/Needs

Does the agency currently use videoconferencing?   No

Increased video conferencing holds significant promise. We have staff communication needs and statewide training and consulting needs that could benefit greatly from easy access to this technology.

MSL will look to partner with ITSD and others to leverage the several advantages offered by this alternative to face-to-face meetings and training.