

State of Montana Information Technology Managers Advisory Council

Council Business Meeting August 6, 2014 - 10:00 – 12:00 Room 137 – State Capitol

Welcome and Introductions (10:00 - 10:20)

- Larry Krause, Chair
 - Order to Continue/New Membership
 - Operating Procedures/Future Meetings
 - ACTION ITEM: Approval of June minutes
- Ron Baldwin, State CIO Update

Business (10:20 – 11:50)

- Action Items requiring approval – Motion Required (5 minutes)
 - Common Data Elements Technical Standard
 - Electronic Compatibility and Interchange Standard
- Biennial Report – Kyle Hilmer (10 minutes)
 - Recruitment and Retention data
- Agency Experience - Multifactor Authentication – Christie McDowell (10 minutes)
- Agency Experience – Email Archive – Larry Krause (10 minutes)

BREAK

- eGov Managers Group – Mike Bousliman (5 minutes)
- University of Montana eGov Services Survey – Audrey Hinman (10 minutes)
- Enterprise IT Funding – Tammy LaVigne (5 minutes)
- 2014 IT Conference – Dan Chelini (5 minutes)
- New Services (10 minutes)
 - Real Time Communications – Voice (Lync) – Jerry Marks ***postponed to September***
 - WebDefend – Sean Rivera

Questions/Comments on August Posted Reports (11:50 – 11:55)

- ECM RFP

Adjournment (11:55-12:00)

- **Next Meeting – September 3**
- **Member Forum**
- **Public Comment**
- **Adjourn**

Notice: The Department of Administration will make reasonable accommodations for persons with disabilities who wish to participate in the ITMC public meetings or need an alternative accessible format of this notice. If you require an accommodation, contact the Department of Administration no later than six business days prior to the meeting of interest, to advise us of the nature of the accommodation that you need. Please contact Carol Schopfer, 406-444-4510 or cschopfer@mt.gov.

ORDER CONTINUING THE INFORMATION TECHNOLOGY MANAGERS ADVISORY COUNCIL

I, Sheila Hogan, Director of the Department of Administration, hereby establish the Information Technology Managers Advisory Council (ITMC) within the Department of Administration effective July 1, 2014 through June 30, 2016, in accordance with the provisions of §2-15-122, MCA. Members shall serve at the pleasure of the Governor in an advisory capacity in accordance with §2-15-122, MCA.

PURPOSE

The purpose of the Information Technology Managers Advisory Council (ITMC) is to provide, where possible, development, implementation, and advice to the State CIO on IT services, contracts, architecture, security, plans and policies affecting the State of Montana IT enterprise. The primary goal is to enable the delivery of secure, effective, and efficient governmental IT services to support the citizens of Montana.

Toward this end it will:

- gather information, review opportunities, review issues and provide advice to the State CIO;
- actively support planning and governance efforts of the Information Technology Board;
- actively participate in enterprise information technology policy and standards review processes;
- actively participate in state and agency IT strategic plan development, implementation, measurement and continual improvement;
- meet regularly to provide an opportunity for free exchange among information technology professionals on subjects of common interest and concern; and
- provide a forum for maintenance of the state's technical staff resources through continuing education, career development, sharing ideas and resources.

The council is responsible for developing its own operating procedures and governing structure in order to carry out the responsibilities of the council.

MEMBERSHIP

The ITMC is composed of eight (8) members: the State Chief Information Officer, at least one representative of local government, and six members at large. Members at large may be, but are not limited to, IT managers of the Executive, Legislative, and Judicial branches of government, as well as local government and university system IT managers.

All other IT managers (or their designee) of the Executive, Legislative, and Judicial branches of government will serve as Enterprise Representatives to the Council. Enterprise Representatives are encouraged to attend and actively participate in ITMC meetings and working groups.

The members of the ITMC serve as a representative body. As a representative body, it is the council's duty to coordinate council meetings, ensure open exchange of information and to provide advice that reflects the consensus of Enterprise Representatives.

The memberships for the July 1, 2014 through June 30, 2016 term are attached as Addendum A.

COMPENSATION

Advisory council members who are state or political subdivision employees shall not receive any compensation, as provided in §2-15 122(5), MCA. All members shall be entitled to be reimbursed for travel expenses, as provided in §2-15-122(5) and §2-18-S01 through §2-18- 503, MCA.

DURATION

The Council shall exist until June 30th, 2016.

APPROVAL

Sheila Hogan
Director of the Department of Administration

Date

Accepted for filing by:

ADDENDUM A
INFORMATION TECHNOLOGY MANAGERS ADVISORY COUNCIL
July 1, 2014 through June 30, 2016

State CIO Representative

Ron Baldwin, State Chief Information Technology Officer, Department of Administration

Local Government Member

Chris Sinrud, City of Helena / Lewis & Clark County

Members at Large

Larry Krause, Department of Commerce

Kim Moog, Department of Labor and Industry

Lisa Mader, Montana Supreme Court

Mike Bousliman, Montana Department of Transportation

Tim Bottenfield, Department of Revenue

Evan Hammer, Montana State Library

Information Technology Managers Advisory Council (ITMC)

Operating Procedures

July 2014 – June 2016

OVERVIEW:

The State of Montana Information Technology Managers Advisory Council (ITMC) herein referred to as “council” was established in 1997 at the direction of the Director of the Department of Administration and has been reestablished as prescribed by law at variable terms through June 2014. The council serves at the pleasure of the Governor and the Director of the Department of Administration. The council is advisory in nature per MCA 2-15-102. Advisory capacity means “furnishing advice, gathering information, making recommendations, and performing other activities that may be necessary to comply with federal funding requirements and does not mean administering a program or function or setting policy.”

The 2014-2016 council is comprised of eight IT professionals including a local government representative, six at large members, and the State Chief Information Officer. These members, appointed by Department of Administration Director Sheila Hogan, will serve a two year term commencing on July 2, 2014 and ending on June 30, 2016.

RESPONSIBILITIES OF THE COUNCIL:

The Council exists to provide advice to the Department of Administration, State Information Technology Services Division herein referred to as “SITSD” concerning the technology needs of state agencies on a wide range of technological issues within state government. In striving to provide suitable advice to the Department, the council may undertake the following activities:

- gather information, review opportunities, review issues and provide advice to the State CIO;
- actively support planning and governance efforts of the Information Technology Board;
- actively participate in enterprise information technology policy and standards review processes;
- actively participate in state and agency IT strategic plan development, implementation, measurement and continual improvement;
- meet regularly to provide an opportunity for free exchange among information technology professionals on subjects of common interest and concern; and
- provide a forum for maintenance of the state's technical staff resources through continuing education, career development, and sharing ideas and resources.

MEMBERSHIP & PARTICIPATION:

To preserve continuity from one council term to the next, the FYE 2014 council’s then vice-chair will become the chair for the newly established council. ITMC meetings will be facilitated by the chair who will serve for one year in this capacity, and in the second year serve as a member at

large. Prior to the first council meeting of the new term, the official council members will select a vice-chair. The vice-chair will serve in a supporting capacity to the chair in the first year of the council term, and become the chair in the second year of the term. At this transition, the official councils will elect a new vice-chair to service for the second year of the term.

Active participation is necessary for the council to function effectively. Continuity is essential regarding issues under discussion, and especially for those needing affirmative action. Therefore, if a member has three absences during a fiscal year, the council can, in consultation with the Director of the Department of Administration, recommend replacement of the member in question.

In addition, all IT managers of the Executive, Legislative, and Judicial branches of government will serve as Enterprise Representatives to the council. As Enterprise Representatives, IT managers are encouraged to attend and actively participate in ITMC meetings and working groups.

VOTING:

It should be noted that given the advisory nature of the council, votes indicate the degree of consensus, not an approval or denial of any item.

SITSD PARTICIPATION:

It is anticipated that, upon request, portions of the general meetings will include presentations by members of the SITSD technical and policy staffs. SITSD will ensure that staff with technical knowledge of the issue(s) is available at council meetings to share expertise.

COMMUNICATIONS:

The council shall communicate with SITSD, the Information Technology Board and other entities through the chair, or as delegated by the chair. Members are encouraged to contact the chair with suggested agenda items. Items requiring council action will be noted on the agenda.

Official correspondence will be distributed at the discretion of the chair, or the acting chair, with the assistance of SITSD council support staff. Action items or issues for future discussion will be noted by support staff, and coordinated with the chair for future agendas.

Minutes of the council meetings will be provided to all council members and interested IT professionals. They will be published on the SITSD web site.

MEETINGS:

The council regular meetings are held on the first Wednesday of every month and are open to all. IT professionals from federal, state, local, and tribal governments and private entities are invited and encouraged to join in discussing topics of interest to the IT community.

STAFFING:

The SITSD provides staffing support to the council. Council staffing support includes participating in building meeting agendas for monthly council meetings, coordinating meeting times and rooms, taking minutes, distributing correspondence, and responding to the ad hoc needs of the council. SITSD will also provide technical resources for assigned subcommittees as requested by the council chair.

EFFECTIVE:

These procedures will become effective upon approval at the August 2014 meeting. They will remain in effect commensurate with the Executive Order that establishes the council.

FUNDING ENTERPRISE TECHNOLOGY
Alternative Methods for Funding
Updated – July 29, 2014

FUNDING MECHANISMS	BENEFITS	ISSUES	July 1-Working Group Comments
<p>Restricted Appropriation Authority: Request the legislature to restrict authority related to agency SITSD fixed costs, limiting the spending authority for that purpose only. While this would eliminate agencies ability to use this authority for non-SITSD service offerings, it does not incentivize accurate forecasting of actual usage and leaves SITSD and customers at risk.</p>	<ul style="list-style-type: none"> • Restricts Appropriation authority to intended purpose 	<ul style="list-style-type: none"> • No Incentive for accurate forecasting • Does not protect agency IT budgets • Does not equalize impact on rates 	<ul style="list-style-type: none"> • Extremely difficult to administer especially if multi-funded agencies • Restricts agencies flexibility to choose other options • Has little or no impact on internal fund/proprietary funded agencies <p>Recommendation: Not effective, group would not support a recommendation to restrict authority</p>
<p>Restricted Appropriation/Bill 1/12 of total appropriation monthly: Bill agencies for the biennium on the amount of forecasted units, their budget request. Any over or under collection for actual services would revert to fund balance and be used in the next biennium rate calculation. If agencies under forecasted or experienced unanticipated needs beyond their budget request for SITSD service offerings, they would need to use other authority to procure SITSD services (budget amendment; unspent base authority, reverted appropriation, etc.) This would be required to minimize the impact on rates in future biennia and to ensure accountability.</p>	<ul style="list-style-type: none"> • Restricts spending authority • Protects agency budgets • Incentivizes accurate forecasting • Increases accountability • Equalizes Impact on Rates • Promotes share services • Promotes Innovation 	<ul style="list-style-type: none"> • Customers may be billed for services they do not use 	<ul style="list-style-type: none"> • Would need to consider options when agencies under estimate/forecast need • Would work well for enterprise type services (those that all agencies use and/or required to be provided by MITA) • SITSD would need to track actual utilization by agency and apply overage/short fall in next biennium • Preference to bill “bottom-line” – giving agencies to transfer over-projections to under projections by service <p>Recommendation: Not supported (Restricted Approp – see above)/Does not incentivize customers to be efficient</p>
<p>Fixed Cost. For fixed infrastructure costs that are incurred for a common or joint purpose benefiting the enterprise as a whole, allocate as a fixed cost based on FTE. Associated direct costs, those costs that are</p>	<ul style="list-style-type: none"> • Supports MITA required services • Supports MITA objectives • Maintains agency flexibility in choosing direct services 	<ul style="list-style-type: none"> • One-time redistribution of costs to agencies 	<ul style="list-style-type: none"> • Fixed cost recovery raises concerns such as: quality of service; prioritization of service • Need to determine what services would be fixed and what would not

<p>directly assignable to a particular user, would be allocated based on utilization, and a rate would be established based on utilization for those direct costs. Three fixed infrastructure costs are candidates for consideration:</p> <ul style="list-style-type: none"> a. SummitNet b. The State’s Telecommunication systems c. State Data Center 			<ul style="list-style-type: none"> • A governance body of both finance and IT personnel would help guide decision making • Allocation methodology is a concern <p>Recommendation: Not supported as it does not incentivize customers to be efficient</p>
<p><u>Seek General Fund Appropriation</u></p>	<ul style="list-style-type: none"> • Supports MITA required services • Supports MITA objectives • Maintains agency flexibility in choosing direct services 	<ul style="list-style-type: none"> • Executive and legislative support 	<ul style="list-style-type: none"> • Recognize that it is extremely hard to get exec/leg support • May want to consider GF for: infrastructure build out; enterprise rate; fixed costs; overhead <p>Recommendation: Supported but understand the political hurdle</p>
<p><u>Other Discussion/options</u></p>	<ul style="list-style-type: none"> • Stay with model, and increase/decrease rates throughout the biennium as needed to address agency actual utilization and match SITSD revenues to expenditures <ul style="list-style-type: none"> ○ SITSD would need agency support especially when rates increase • Remove overhead from all rates and bill as a fixed cost • Create a “Restricted Contingent Authority Account” in the OBPP for agencies that under budget/forecast • Support funding a 30-day working capital within SITSD rates <ul style="list-style-type: none"> ○ Apply to all rates; or ○ Apply as a fixed rate; or ○ Apply to only stable (as opposed to volatile) rates. • Create a “reserve fund” using unspent authority, for future infrastructure needs • Require commitment by users at some level, for services requested • Increase rates by 1% to establish a 30-day working capital • Knowledge the need for a future governance model (possibly a sub-committee of ITB) made up for both IT and Finance professionals • Under a future governance model, review service “underperformers” to plan for decommissioning • Add a surcharge to stable/enterprise services. Funds would be used to increase working capital to a 30-day reserve; allows for the state to explore/offer new services that require initial investment 		

Final Recommendation

The consensus is to add a surcharge to select rates that are stable and generally used enterprise wide. The goal is to generate sufficient revenues to reach a 30-day working capital. This would allow the state to take advantage of new technologies; offering services that initially may be risky and/or have unfunded startup costs. The group also endorsed the following:

- Create a “Restricted Contingent Authority Account” in the OBPP for agencies that would enable agencies that do not have sufficient authority to take advantage of new/existing state IT services within the current biennium
- The need for an on-going group of IT and Finance professionals that would continue to review enterprise IT services and make recommendations to the ITMC and ITB

	State Information Technology Services Division Interim Standard	Category	Information Technology
		Effective Date	May 14, 2014
		Last Revised	To be Revised by June 30, 2015
Issuing Authority	State Information Technology Services Division		
STD – Common Data Elements Technical Standard (interim)			

I. Purpose

The purpose of this Interim Standard provides common data element technical guidance for state agencies. This interim standard is intended to provide high level guidance to state of Montana Executive branch agencies, to ensure compatibility of applications and systems used to electronically capture, share, store, or retrieve digital information or records on systems supported in the State of Montana Data Centers and State-wide network.

II. Scope

This Standard applies to all Executive branch agencies and independent contractors, excluding the university system, who have access to, use, or manage state government-controlled information systems.

III. Standard Statement

This “Interim” standard provides guidance identifying common data elements that may be used when capturing, retrieving, sharing, storing and transferring electronic information.

Specifically, it supports the Montana Data Portal and information exchange opportunities between state and local organizations in a secure, effective and efficient manner.

- a. Address Format—US Postal Service (USPS). Standardized address information enhances the processing and delivery of mail, reduces undeliverable-as-addressed mail, and provides mutual cost reduction opportunities through improved efficiency. This standard describes both standardized address formats and content. It outlines the guidelines that govern how address information appears in the Address Information System (AIS) products. Format describes how the various elements appear on a mail piece or in an address record. Content describes the characters that constitute the various address elements.
- b. State Agency and Organization names, per MCA 2-15. An executive and administrative office, board, commission, department, or any other entity or instrumentality of the executive branch of state government.

- c. Agency Acronym format, Montana Operations Manual (MOM) Information Technology Policy (POL—Network Resources Naming, Domain Name System). The following acronyms will be used to identify agencies and to remain consistent with other automated directory services on the state network. These acronyms are to be used in naming objects and other items on the network.

ADV	Montana Advocacy Program
AGR	Department of Agriculture
ART	Montana Arts Council
BOE	State Board of Education
BPE	Board of Public Education
CHE	Office of the Commissioner of Higher Education
DOC	Department of Commerce
COR	Department of Corrections
CPP	Commissioner of Political Practices
DEQ	Department of Environmental Quality
DLI	Department of Labor and Industry
DMA	Department of Military Affairs
DOA	Department of Administration
DOJ	Department of Justice
DOR	Department of Revenue
FWP	Department of Fish, Wildlife and Parks
GOV	Governor's Office
HCT	Helena College of Technology
HHS	Department of Public Health & Human Services
HIS	Historical Society
JUD	Judiciary
LEG	Legislative Branch
LIV	Department of Livestock
MDT	Department of Transportation
MSL	Montana State Library
DNR	Department of Natural Resources & Conservation
OPI	Office of Public Instruction
PSC	Department of Public Service Regulation
SAO	State Auditor's Office
SOS	Secretary of State
STF	Montana State Fund
USM	University System

- d. County Format/Names—US Census Bureau. National and state files containing codes for counties and county equivalent entities.

For City Format/Name, it is recommended to use the [Montana State Library](#) dataset as a representation of incorporated city and town information in the State of Montana.

IV. References

A. Legislation

MCA Code 2-6-214: <http://leg.mt.gov/bills/mca/2/6/2-6-214.htm>

B. Policies, Directives, Regulations, Rules, Procedures, Memoranda

Policies: [State of Montana Operations Manual](#)

MOM Information Technology Policies (POL - Network Resources Naming/POL-Domain Name Systems): [Information Technology Policy](#)

C. Standards, Guidelines

Address Format—US Postal Service,
<http://pe.usps.gov/cpim/ftp/pubs/Pub28/pub28.pdf>

Agency and State Organization Format/Names—MCA 2-15,
http://leg.mt.gov/bills/mca_toc/2_15.htm

City Format/Names—Montana State Library/Spatial: [Metadata for Montana Incorporated Cities and Towns](#)

County Format/Names—US Census Bureau,
<http://www.census.gov/geo/reference/codes/cou.html>

Agency Acronyms—MOM, Network Resources Naming, Domain Name Systems): [Information Technology Policy](#)

V. Contact: Lynne Pizzini, Chief Information Security Officer, 444-9127

	DOA/State Information Technology Services Division Standard (Interim)	Category	Information Technology
		Effective Date	April 30, 2014
		Last Revised	Review prior to June 30, 2015
Issuing Authority	DOA/State Information Technology Services Division		
STD – Electronic Compatibility & Interchange Technical Standard (Interim)			

I. Purpose

The purpose of this Interim Standard provides Electronic Compatibility & Interchange format guidance for state agencies. This interim standard is intended to provide high level guidance to State of Montana Executive branch agencies, to ensure compatibility of electronic information and record systems used to electronically capture, store, or retrieve public records on systems supported in the State of Montana Data Centers and State-wide network.

II. Scope

This interim standard applies to all Executive branch agencies and independent contractors, excluding the university system, who have access to, use, or manage state government-controlled information systems. This guidance proposes element and format requirements for electronic records equipment and systems to be used in the management of information assets as records. However, this interim standard is neither complete nor sufficient to define all specific needs for every agency. These formats are not written to address sensitive records, Freedom of Information Act (FOIA) or the Privacy Act, but they are applicable and can be used in support of those requirements.

III. Standard Statement

This “Interim” standard provides guidance for identifying electronic compatibility and information exchange formats that may be used when capturing, retrieving, storing and transferring electronic records and information.

Specifically, it covers electronic compatibility for information and records that are created, used, and managed on computer systems and which can be moved between computer file systems without alteration of the original method of encoding. It applies to records that originated electronically, such as word processing files or digitally recorded sound, as well as those that are digital representations of records which originated in a non-electronic form such as paper or film.

For storing public records throughout their life cycle, agencies shall select appropriate electronic records storage media and systems which meet the following requirements:

1. Agencies shall select appropriate media and equipment for storing state records or converting from one medium to another throughout their life cycle, which:
 - a) Provide sufficient storage space for storing records with related record indexes, and maintaining associated audit logs
 - b) Permit seamless and accurate retrieval in a timely manner
 - c) Retain the records in a usable format until their authorized disposition date
 - d) Maintenance necessary to retain the records
 - e) Cost of storing and retrieving the records
 - f) Accessibility of records over time due to software and hardware requirements
 - g) Portability of the medium - selecting a medium that will run on equipment offered by multiple manufacturers
 - h) Ability to transfer the information from one medium to another
 - i) Provide Write Once, Read Many (WORM) capabilities

2. For all records, regardless of media, the electronic record system shall uniformly create and maintain indexes (Metadata), but not limited to the following information:

Index (label)	Description
Creator	Indicates the agency that supplied the data
Date	When data set (or metadata) is created and/or modified.
Description	A brief description of the data set
Format	Method of export, open file format that is platform independent, machine readable, and made available to the public without restrictions that would impede the re-use of that information.
Identifier	Generally a 9-character identifier (i.e. xxxx-xxxx)
Sequence number	If the file is part of a multi-data set
Source (location)	Identifies the name of the source system
Title	The brief descriptive name of the data set
Type	The category of the data set identified by the list of possible values. If a data set can fall into multiple categories, select the one which is most significant. This list will be subject to change on an ongoing basis.

3. Agencies will ensure that information is not lost due to changing technology or deterioration of storage media by converting storage media to provide compatibility with the agency's current hardware and software. Before conversion of information to a different media, agencies must determine that authorized disposition of the electronic records can be implemented after conversion.
4. System Backup and Recovery. The purpose of this requirement is to specify the capabilities which must be included to reduce exposure to loss of records due to system failure, operator error, disaster, or willful destruction. The capability shall be provided to produce periodic backup copies of all records managed by the system at intervals specified by authorized administrators. The capability shall be provided to create and maintain an audit trail of changes to the records repository.

The system shall produce audit trails as a minimum on physically different devices. The audit shall contain all changes made to any records and all control information necessary to provide the recovery capabilities. Following any system failure, the backup and recovery procedures shall provide the capability to full functionality (records and any control information such as indexes required to access the records).

5. Records Management Administrators, IT managers, agency Security managers, and their designees that are part of the Executive branch who are responsible for the management of and reporting on agency security controls must be aware of this standard.

This interim standard requirement is applicable to any arrangement with third parties that handle, store, or transfer *government records*.

6. Electronic records do not have to be records of only one interchange or file format. This guidance assumes that records will be permanent records and will include files that are encoded in a format identified as acceptable by the National Archive & Records Administration (NARA), Library of Congress, National Information Exchange Model (NIEM), International Organization for Standardization (ISO), International Telecommunications Union (ITU), International Working Groups and World Wide Web Consortium (W3C) to name a few.

Electronic Record Compatibility Formats

Format	Description
TIFF	<p>Tagged Image File Format (TIFF). A tag-based file format for storing and interchanging raster images. The different encodings may represent different compression schemes and different schemes for color representation.</p> <p>http://www.digitalpreservation.gov/formats/fdd/fdd000024.shtml</p> <p>http://www.digitalpreservation.gov/formats/fdd/fdd000022.shtml</p>

JPEG	<p>JPEG Image Encoding Family. Family of image compression codecs specified in the various parts of ISO/IEC 10918 and ISO/IEC 14495 (and in the parallel ITU-T.81, 83, 84, 86, and 87 standards). ISO/IEC 10918-1 covers both lossy and lossless compression in several "modes of operation,"</p> <p>http://www.digitalpreservation.gov/formats/fdd/fdd000017.shtml</p>
PDF	<p>Portable Document Format (PDF). A digital form for representing electronic documents to enable users to exchange and view electronic documents independent of the environment in which they were created or the environment in which they are viewed or printed.</p> <p>http://www.iso.org/iso/catalogue_detail.htm?csnumber=51502</p>
PDF/A-1	<p>ISO 19005— Document management—Electronic document file format for long-term preservation of electronic documents. PDF/A-1 (PDF version 1.4) is intended to be suitable for long-term preservation of page-oriented documents for which PDF is already being used in practice. The ISO standard was developed by a working group with representatives from government, industry, and academia and Adobe Systems Incorporated.</p> <p>http://www.digitalpreservation.gov/formats/fdd/fdd000125.shtml</p>
PDF/A-2	<p>[ISO 19005-1:2005] Document management—Electronic document file format for long-term preservation of electronic documents- Part 2: Use of ISO 32000-1 (PDF 1.7). It is for preserving the static visual representation of page-oriented electronic documents over time.</p> <p>http://www.digitalpreservation.gov/formats/fdd/fdd000319.shtml</p>
PDF/E	<p>Document management—Engineering document format using PDF using the Portable Document Format (PDF) Version 1.6 for the creation of documents used in engineering workflows.</p> <p>http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=42274</p>
PDF/UA	<p>Document management applications—Universal Access—Electronic document file format enhancement for accessibility for People with disabilities, IT managers in government.</p> <p>http://www.digitalpreservation.gov/formats/fdd/fdd000350.shtml</p>
U3D	<p>Universal 3D (U3D). An extensible format for downstream 3D CAD repurposing and visualization, useful for many mainstream business applications.</p> <p>http://www.ecma-international.org/publications/standards/Ecma-363.htm</p>

CSV	<p>Comma Separated Values (CSV), RFC 4180, is a simple format for representing a rectangular array (matrix) of numeric and textual values. It is an example of a "flat file" format. It is a delimited data format that has fields/columns separated by the comma character %x2C (Hex 2C) and records/rows/lines separated by characters indicating a line break.</p> <p>http://tools.ietf.org/html/rfc4180</p> <p>http://www.digitalpreservation.gov/formats/fdd/fdd000323.shtml</p>
ODF	<p>The OpenDocument Format (ODF) is an open XML-based document file format for office applications to be used for documents containing text, spreadsheets, charts, and graphical elements. The file format makes transformations to other formats simple by leveraging and reusing existing standards wherever possible.</p> <p>https://www.oasis-open.org/committees/tc_home.php?wg_abbrev=office</p>
DOC	<p>A filename extension for word processing documents, most commonly in the Microsoft Word Binary File Format..</p> <p>http://msdn.microsoft.com/en-us/library/cc313153%28v=office.12%29.aspx</p>
DOCX	<p>DOCX is the default document format of Word 2007 and 2010. The Microsoft Office system introduces a new file format based on XML.</p> <p>http://msdn.microsoft.com/en-us/library/ee908652%28v=office.12%29</p>
GIF	<p>Graphics Interchange Format. A bitmapped image format widely used on the Web.</p> <p>http://www.w3.org/Graphics/GIF/spec-gif89a.txt</p> <p>http://www.digitalpreservation.gov/formats/fdd/fdd000133.shtml</p>
PNG	<p>PNG (Portable Network Graphics), an extensible file format for the lossless, portable, well-compressed storage of raster images. PNG is designed to work well in online viewing applications, such as the World Wide Web, so it is fully streamable with a progressive display option. ISO/IEC 15948:2003 (E)</p> <p>http://www.libpng.org/pub/png/</p> <p>http://www.w3.org/TR/REC-png-multi.html</p>

Streaming Media/Video Formats

MPEG2	<p>Generic coding of moving pictures and associated audio information (formal name); MPEG-2 (common name). The video or picture encoding defined by the MPEG-2 family of specifications. ISO/IEC 13818. Information technology.</p> <p>http://www.digitalpreservation.gov/formats/fdd/fdd000028.shtml</p>
MP3	<p>MPEG Audio Layer III (MP3). MP3 (common name). MPEG Layer III audio encoding is defined in two ISO/IEC specification families (MPEG-1: 11172-3 and MPEG-2: 13818-3).</p> <p>http://www.digitalpreservation.gov/formats/fdd/fdd000012.shtml</p>
MPEG-4	<p>The second MPEG-4 file format developed by the Motion Picture Experts Group (MPEG). The format's object-based design defines a set of tools that present binary coded representation of individual audiovisual objects, text, graphics, and synthetic objects. ISO/IEC 14496-14:2003. Information technology -- Coding of audio-visual objects -- Part 14: MP4 File Format (formal name); MPEG-4 file format, version 2 (common name).</p> <p>http://www.digitalpreservation.gov/formats/fdd/fdd000155.shtml</p>
H.264	<p>H.264 is a video compression format, and is currently one of the most commonly used formats for the recording, compression, and distribution of video content.</p> <p>http://www.itu.int/rec/T-REC-H.264-201304-S</p> <p>http://www.itu.int/rec/T-REC-H.264-201402-P</p>
H.323	<p>H.323 uses the Internet Protocol (IP) to transmit packets over an IP network and can be achieved on any data network that uses IP, like Internet, Intranets and Local Area Networks (LAN). Here the signal is digitized, compressed and converted to IP packets and then transmitted over the IP network.</p> <p>http://www.itu.int/rec/T-REC-H.323/en</p>
F4V/FLV	<p>Adobe Flash supports a number of media formats. These include two core open container formats for delivering synchronized audio and video streams: F4V and FLV. F4V builds on the open standard ISO/IEC 14496-12:2008 (MPEG-4 Part 12) ISO base media file format and supports H.264/AAC-based content. It has a flexible structure and defines specific supported codecs and extensions, facilitating simplified interoperability across tools, services, and clients.</p> <p>http://download.macromedia.com/f4v/video_file_format_spec_v10_1.pdf</p>

ACC	<p>Advanced Audio Coding (ACC). Audio encoding format designed for efficient distribution of sound files over moderate bandwidth connections; may be used at higher data rates for better fidelity. ISO/IEC 14496-3:2001. Information technology -- Coding of audio-visual objects -- Part 3: Audio.</p> <p>http://standards.ieee.org/findstds/standard/1857.2-2013.html</p> <p>http://www.digitalpreservation.gov/formats/fdd/fdd000114.shtml</p>
ASF	<p>The Advanced Systems Format (ASF) is an extensible file format designed primarily for storing and playing synchronized digital media streams and transmitting them over networks. ASF is the container format for Windows Media Audio and Windows Media Video-based content. Data types can include audio, video, script command, JPEG-compressed still images, binary, and other streams defined by developers.</p> <p>http://www.digitalpreservation.gov/formats/fdd/fdd000067.shtml</p>
RTC	<p>Real-Time Communication (RTC) supports voice and video applications for voice calling, video chat, and P2P file sharing without plugins</p> <p>https://www.w3.org/standards/techs/webrtc#w3c_all</p> <p>http://technet.microsoft.com/en-us/library/gg425865.aspx</p> <p>http://technet.microsoft.com/en-us/library/jj688132.aspx</p>

Interchange Formats

JSON	<p>JavaScript Object Notation (JSON) is a lightweight, text-based, language-independent data interchange format. It was derived from the ECMAScript programming language, but is programming language independent. JSON defines a small set of structuring rules for the portable representation of structured data.</p> <p>http://www.ecma-international.org/publications/standards/Ecma-404.htm</p> <p>http://tools.ietf.org/html/rfc7159</p>
XML	<p>Extensible Markup Language (XML) is a simple, very flexible text format derived from SGML (ISO 8879). Originally designed to meet the challenges of large-scale electronic publishing, XML is also playing an increasingly important role in the exchange of a wide variety of data on the Web.</p> <p>http://www.w3.org/2002/xmlspec/</p> <p>http://www.w3.org/TR/2006/REC-xml11-20060816/</p>

NIEM	<p>NIEM is a community-driven, government- wide, standards-based approach to exchanging information.</p> <p>https://www.niem.gov/technical/Pages/version-3.aspx</p> <p>https://www.niem.gov/technical/Pages/current-release.aspx</p>
NIEM UML	<p>NIEM UML Object Management Group-Unified Modeling Language: NIEM-UML is an extension of a subset of Unified Modeling Language that is specific to NIEM. NIEM-UML generates 100% NIEM-conformant information exchanges and provides a visual representation of those exchanges that is understandable to both technical and business users. This enables organizations to align their information exchanges with their business requirements.</p> <p>http://niem-uml.org/wpniem/</p>
GML	<p>The Geography Markup Language (GML) is an XML encoding in compliance with ISO 19118 for the transport and storage of geographic information modelled in accordance with the conceptual modelling framework used in the ISO 19100 series of International Standards and including both the spatial and non-spatial properties of geographic features.</p> <p>Reference: OGC 10-129r1 http://www.opengeospatial.org/standards/gml</p>
KML	<p>Key Markup Language is used to encode and transport representations of geographic data for display in an earth browser, such as a 3D virtual globe, 2D web browser application, or 2D mobile application. A KML instance is processed in much the same way that HTML (and XML) documents are processed by web browsers. Like HTML, KML has a tag-based structure with names and attributes used for specific display purposes.</p> <p>Reference: OGC 07-147r2 http://www.opengeospatial.org/standards/kml</p>
X3D	<p>Extensible 3D (X3D). Interactive web- and broadcast-based 3D content integrated with multimedia. Intended for use on a variety of hardware devices and in a broad range of application areas such as engineering and scientific visualization, multimedia presentations, entertainment and educational titles, web pages, and shared virtual worlds.</p> <p>http://www.web3d.org/files/specifications/19775-1/V3.2/index.html</p>
JFIF	<p>JPEG File Interchange Format (JFIF). JFIF is a minimal file format that enables JPEG bitstream exchanges between a wide variety of platforms and applications.</p> <p>http://www.digitalpreservation.gov/formats/fdd/fdd000018.shtml</p>

HL7	A framework (and related standards) for the exchange, integration, sharing, and retrieval of electronic health information. https://www.hl7.org/implement/standards/
HTML/ HTML5	HTML/HTML5 is an Open Web Platform for application development that enables developers to build data stores that on any device. HTML5 is considered to be the cornerstone, but the full strength of the platform relies on W3C technologies including CSS, SVG, WOFF, the Semantic Web stack, XML, and a variety of APIs. http://www.w3.org/standards/techs/html#w3c_all http://www.w3.org/TR/html5/
WAI	WAI-ARIA, the Accessible Rich Internet Applications Suite, defines a way to make Web content and Web applications more accessible to people with disabilities. It especially helps with dynamic content and advanced user interface controls developed with Ajax, HTML, JavaScript, and related technologies. http://www.w3.org/TR/2014/REC-wai-aria-20140320/

IV. References

A. Legislation

MCA Code 2-6-214. Department of Administration – powers and duties:

<http://leg.mt.gov/bills/mca/2/6/2-6-214.htm>

MCA Code 2-17-505. Policy

<http://leg.mt.gov/bills/mca/2/17/2-17-505.htm>

MCA Code 2-17-512. Powers and duties of department.

<http://leg.mt.gov/bills/mca/2/17/2-17-512.htm>

MCA Code 2-17-534. Security responsibilities of department.

<http://leg.mt.gov/bills/mca/2/17/2-17-534.htm>

MCA Code 2-15-114. Security responsibilities of departments for data.

<http://leg.mt.gov/bills/mca/2/15/2-15-114.htm>

B. Policies, Directives, Regulations, Rules, Procedures, Memoranda

Procedure: [State of Montana Information Technology Policies](#)

C. Standards, Guidelines, References

DoD 5015.02-STD, Electronic Records Management Software Applications Design std.

<http://jrtc.fhu.disa.mil/cgi/rma/downloads/p50152stdapr07.pdf>

Health Information Exchange (HIE) Standards and Interoperability
<http://www.healthit.gov/providers-professionals/standards-interoperability>

Health Level Seven International
<https://www.hl7.org/>

Health Information Technology for Economic and Clinical Health (HITECH) Act
<http://www.hhs.gov/ocr/privacy/hipaa/administrative/enforcementrule/hitechenforcementifr.html>

Information Sharing Environment
<http://ise.gov/>

Institute of Electrical and Electronics Engineers
<http://www.ieee.org/index.html>

International Organization for Standardization
<http://www.iso.org/iso/home/standards.htm>

International Telecommunications Union
<http://www.itu.int/en/ITU-T/Pages/default.aspx>

Internet Engineering Task Force (IETF)
<http://www.ietf.org/>

Library of Congress-Digital Preservation
<http://www.digitalpreservation.gov/>

M-12-18, Presidential Memorandum – Managing Government Records:
<http://www.whitehouse.gov/sites/default/files/omb/memoranda/2012/m-12-18.pdf>

National Archive and Records Administration Transfer Guidance Tables:
<http://www.archives.gov/records-mgmt/policy/transfer-guidance-tables.html>

NARA Bulletin 2014-04: Guidance on File Format Transfer
<http://www.archives.gov/records-mgmt/bulletins/2014/2014-04.html>

Nationwide Health Information Network (NwHIN)
<http://www.healthit.gov/policy-researchers-implementers/nationwide-health-information-network-nwhin>

National Information Exchange Model
<https://www.niem.gov/Pages/default.aspx>

National Institute of Standards and Technology (NIST), Security and Privacy Controls for Federal Information Systems and Organizations.

<http://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-53r4.pdf>

Open Geospatial Consortium

<http://www.opengeospatial.org/>

World Wide Web Consortium (W3C)

<http://www.w3.org/Consortium/>

V. Contact: Lynne Pizzini, Chief Information Security Officer (406) 444-9127

Reporting to ITMC

Information Owner
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Organization & Work Unit: State Information Technology Services Division
Phone: 444-9127
Email: lpizzini@mt.gov
Website (if applicable):

Information	
<input checked="" type="checkbox"/> Informational <input type="checkbox"/> Issue <input type="checkbox"/> Action Needed <input type="checkbox"/> Other:	
Name of Service, Program, Project or Issue: Data Protection Initiative	
Description: The Data Protection Initiative has three parts: Access Control and Verification, Multi-factor Authentication, and Enterprise Risk Assessment. This is an update to the status of each of these areas of this initiative. Access Control and Verification The UserID and password proposal was approved and the team is moving forward with implementing the recommendations. This proposal will be implemented when the new access control and verification system is moved into production in Spring, 2015. Multi-factor Authentication The system has been implemented for SITSD and Department of Revenue. Department of Justice and Department of Health and Human Services are on task to begin their implementation shortly. Approval has been completed for full production. Agencies wanting to implement should open a case through the Service Desk and SITSD will work with you on a roll out plan for them. Enterprise Risk Assessment This project is well under way and the contractor has already made several site visits across the state. Information is being collected and reviewed. Weekly meetings are being held as the project progresses. Participating agencies are Department of Health and Human Services, Department of Revenue, Department of Labor, and Department of Justice.	
Impact: Impacts all state agencies.	

Key Dates:

Other information and list any attachments: