MITA ISSUES COMMITTEE DISCUSSION PAPER

PURPOSE

The purpose for this document is to aid the committee in a discussion of key issues and options for addressing concerns with the Montana Information Technology Act (MITA)[1]. Ultimately this discussion should lead to deliberation on the following options for moving forward to address concerns raised by the Chief Information Officer (CIO):

- Request legislation for introduction in the 2011 Legislature
- Request legislation for a study bill to further study the issues during the next interim
- Take no action

WHY IS THIS BEFORE THE COMMITTEE?

Montana law assigns oversight for information technology policies of the Department of Administration (DOA) to the committee. At the committee's June 2009 meeting the CIO raised concerns to the committee that the powers, duties, and responsibilities assigned to DOA (the department) are problematic in their administration. In particular, state law assigns responsibilities to the department for enforcing information technology (IT) policies and standards over state agencies, but the powers granted and organization afforded the department impede adequate enforcement efforts.

The committee requested that the CIO review MITA statutes and identify concerns for committee consideration. The chairman also appointed a workgroup to work with the CIO and staff to provide recommendations for committee consideration in addressing the concerns of the CIO. The workgroup met and discussed the eleven items the CIO recommended at the committee's March meeting to continue to pursue. These items are discussed in the staff report discussed at a May workgroup meeting. For those interested in an analysis of the items, see the report available on the Legislative Fiscal Division's Internet Web site at:

http://leg.mt.gov/content/Publications/fiscal/interim/financemty-mar2010/Analysis_MITA_CIO11Concerns.pdf

WHAT WERE THE KEY ISSUES DISCUSSED BY THE WORKGROUP?

In discussion of the concerns raised by the CIO and how IT should be governed and managed in state government, the committee focused on two main topics:

- Authority of the department and the CIO for enforcement of IT policies and standards
- The role and delivery of IT in the new computing world

This paper is intended to aid the committee in discussion of the issue about the authority of the department with the intent to make decisions on what role and how the department should be organized to enforce state agency IT policies and standards.

This paper also broaches the topic of a shift in delivery of IT services from an environment of end-user devices performing the processing of data to one where end-user devices are merely interfaces to a networked system with the processing of data being performed centrally. A discussion is proffered to begin to prepare the legislature for this change. The discussion focuses on the role of IT and how it will be delivered in the future given this change.

[1] The Montana Information Technology Act (MITA) is codified in Title 2, Chapter 17, part 5, MCA

Past, Present, and Future of IT

The workgroup discussed how IT has changed from before MITA was enacted to the present. MITA followed a time in the life of IT where state government had recently transitioned from an environment where all computing was processed on a mainframe computer through "dumb terminal" interfaces into an environment where much of the processing was done on the user's desktops via personal computers and connected via data transfer and storage networks.

Indications are that soon the IT industry will evolve to an environment where the computing resides centrally on networked servers and the users will interface with the network via a myriad of mobile devices with varied levels of sophistication. The environment of the near future is aligned with the concept of a central data center or a central distribution hub for interacting with the world computing network, including the cloud.[2]

Authority of the Department – Limited Effectiveness

Existing Statutory Direction

MITA assigns responsibility to the department for establishing and enforcing state IT policies and standards. Both statutory limitations and current organizational limitations impact the ability of the department in carrying out the assigned responsibilities, especially when it comes to enforcement. Statutory powers state that, if the department determines that an agency is not in compliance with the state strategic information technology plan, the agency information technology plan, or the statewide information technology policies and standards, the department may cancel or modify any contract, project, or activity that is not in compliance.

Activities that prove difficult for the department to enforce are those involving base funding where no contract or project is involved. In these instances the department may not be aware of and has no immediate reach into the activity to exercise its authority to cancel or modify a noncompliant activity.

Workgroup Discussion

The workgroup discussion around authority of the department focused on the following two widely different approaches:

- Should the department, primarily the CIO, be limited to functioning as a facilitator of standardization, coordinator of statewide IT strategic planning, and a sounding board for screening IT projects for funding considerations, or
- Should authority be provided to the department to establish policies and standards and unequivocally be authorized to stop or modify any state agency practice that does not follow the policies and standards?

Committee Decision – Authority of Department of Administration

Determining what the legislature wants as the role for the department for IT governance of state agencies is the first step in determining how to align statute with the IT governance model to administer the legislative policy. The workgroup discussed two roles, each with different sets of pros and cons.

<u>Facilitate, Coordinate, and Advise</u>

Limiting the role of the department to being a facilitator for standardization, coordinator for planning, and sounding board for screening IT projects has pros and cons the committee may want to consider.

[2] The cloud is a metaphor for the Internet in cloud computing. Cloud computing is Internet-based computing, whereby shared resources, software and information are provided to computers and other devices on-demand, typically through data centers and built on servers. (source: Wikipedia)

Pros	Cons
• Less bureaucracy in providing IT services • Faster to implement • Easier for agencies to make specific to their needs	• The CIO may not be fully informed of agency IT initiatives • Standardization could be reduced • Multiple approaches could lead to higher costs to support agency operations • Less sharing of expertise • Increased risks of project failures • Multiple faces of IT to the legislature and citizens • Distributed accountability

Full Authority to Develop and Enforce

Expanding the authority of the department to establish policies and standards and be authorized to stop or modify any state agency practice that does not follow the policies and standards has pros and cons the committee may want to consider.

Pros	Cons
• Agencies own systems but they must be developed according to statewide policies and standards • With required department or CIO approval there are more checks and balances • Standards are applied statewide and enforced • Minimize investment in non-standard systems • Resources and expertise more easily shared • One face for IT • Centralized accountability	• More bureaucracy in providing IT services • Providing checks and balances via enforcement adds costs

The following question may focus this discussion.

Does the legislature want the department, primarily the CIO, to be limited to functioning as a facilitator of standardization and a sounding board for screening IT projects for funding considerations or does it want the department to have full authority to set IT policies and standards and enforce them?

Notes:

If the legislature wants the department to be a statewide facilitator, no statutory changes are needed to address authority issues for the department. In fact, statute could be revised to remove language that requires the department to approve IT contracts and procurement activities. However, these provisions provide a means for the department to be aware of projects and procurement activities for IT equipment, software, and contracted support.

If the legislature wants the department to have full authority to set and enforce IT policies and standards, additional decisions follow to direct statutory changes to address the concerns raised by the CIO.

Timing

Committee Decision – When to Act?

If the committee wants the department's role to be to set and enforce IT policies and standards, the committee may want to decide when it would introduce legislation to align state law with this role and to address concerns raised by the CIO with current statutory directives.

Legislation for the 2011 Legislature

The committee could request legislation for introduction to the 2011 Legislature and may want to consider the following pros and cons of doing so.

Pros	**Cons**
• Benefits would be realized sooner	• Policy decisions could be impacted by budget issues if there are fiscal impacts associated with statutory changes • Staff workload limitations due to current budget issues and upcoming budget analysis

Delay Until After the 2011 Legislature

The committee could delay making recommendations and address the concerns after the 2011 Legislature. When considering this option, the committee may want to consider the following pros and cons.

Pros	**Cons**
• More time to study the issues • Policy decisions would not compete with budget issues during the 2011 Legislature	• Benefits would be delayed • A study resolution or inclusion on LFD work plan may not be approved

The following question and alternatives may aid in this discussion.

When does the committee want to seek statutory changes to align state law with the role it sees the department have for IT governance:

- **Draft legislation for introduction in the 2011 Legislature**
- **Wait until after the 2011 Legislature to further study the issues**

Notes:

Requirements for Legislation or Further study

If the committee wants the department to have statutory authority to set and enforce IT policies and standards, it may want to address organizational issues that provide conflict for the department. The department currently provides the following functions through the Information Technology Services Division (ITSD):

- Provides services to state government for the central computer center and statewide telecommunications network
- Develops and enforces statewide IT policies, standards, and strategic plans

Two Hats for the CIO

Currently, the CIO manages ITSD and the two functions mentioned above. On the one hand, the CIO oversees a function that markets and sells services to other state agencies as the service provider for the central computer center and the statewide telecommunications network. The CIO manages the operations associated with these services.

On the other hand, the CIO must also function in an enforcement role over other state agencies through duties assigned to the department to enforce IT policies, standards, and strategic planning and to approve IT procurement requests. Additionally, the CIO is charged with being the eyes, ears, and face of IT for state government to the citizens and legislature.

When MITA was enacted the legislation followed an interim study of the Legislative Finance Committee. The committee originally drafted legislation that would have established a separate department for IT. In the process the staff for the committee recommended that only the policy development and enforcement functions be moved to an office directly under the Governor. However, when MITA was enacted, both the policy development and enforcement and operations of the statewide resources were assigned to the Department of Administration with responsibility assigned to the director and a requirement added to appoint a CIO to advise the director and to perform duties as assigned. This organizational arrangement in which the IT enforcement authority is assigned generally to the department and no specific statutory duties are assigned to the CIO or ITSD is the crux of the concern raised by the CIO.

Committee Decision – Two Hats for the CIO

The question for the committee is whether the interest of the state is better served by having establishment and enforcement of state policies and standards performed by the same entity responsible for operating the central computer center and the statewide telecommunications system. Furthermore, it may want to discuss which organizational approach would provide the most effective governance of IT given the authority role chosen above.

Policy and Operations Combined

Currently, the establishment and enforcement of state IT policies and standards are performed by the same entity responsible for operating the central computer center and the statewide telecommunications system. This arrangement has pros and cons the committee may want to consider as is discusses details for legislation to address concerns of the CIO regarding authority over IT governance.

Pros	**Cons**
• Experts are immediately available from operational staff without duplication	• Operational issues of the central computing and statewide telecommunications services could influence policy decisions more heavily than issues of other state agencies • CIO manages both operations and policy development and enforcement

Policy and Operations Separated

Alternatively, the committee may want to consider the pros and cons of separating the responsibility for providing policy development and enforcement from the responsibility over operations of central IT services.

Pros	**Cons**
• Policy is influenced more uniformly by issues of all state agencies and not more heavily by central computing and statewide telecommunications services • Enforcement is independent from operations	• The need for subject matter experts for policy development and enforcement duplicates operational experts • Less reach into operations for monitoring compliance to policies and standards

The following question may help focus this discussion:

Should IT policy and standards development and their enforcement be separate from or combined with the organization that operates the central computer center and statewide telecommunications system?

Notes:

Organizing IT Policy Development and Enforcement

In addition to determining if policy development and enforcement should be combined with the provision of central computer and telecommunications services, the committee may want to discuss how these two functions should be organized. Currently, both of these functions are assigned to the Department of Administration and delegated to a division of the department. The CIO has indicated that perceived hierarchical differences of a division of an agency enforcing policies on other agencies has, at times, been problematic.

How the policy and enforcement functions are organized could impact the effectiveness of IT governance. These functions continue to be provided as they currently are, by the Information Technology Services Division of the department, or they could be provided through an alternative organizational structure. Depending upon the committee's desire to couple enforcement of IT policies with operation of central computer and telecommunications functions, these functions could be organized in a number of ways.

No Change in Organization

Keeping the organization as it currently is has the following pros and cons.

Pros	**Cons**
• No change from current practices • Executive Branch determines organizational structure to administer MITA policies • No cost impact	• Continued agency resistance • Future administrations could choose to exclude CIO from the Governor's Cabinet

Policy Development and Enforcement in Governor's Office

Moving IT policy development and enforcement to the Governor's Office would have the following pros and cons.

Pros	**Cons**
• Elevate the perceived importance of IT policy within the Executive Branch • Place all IT operational issues on an even playing field, be it the central computer services or agency issues • Direct reporting to the Governor	• Potentially add costs to develop expertise separate from expertise remaining with operations • Potential to function politically

Separate Department for IT Operations and Policy

Establishing an agency of state government separate from the Department of Administration for both the provision of central IT services and the development and enforcement of IT policies has the following pros and cons.

Pros	**Cons**
• Elevate the perceived importance of IT policy within the Executive Branch • Direct reporting to the Governor during subsequent administrations • CIO on cabinet during subsequent administrations • CIO and agency heads are at same management level	• Increases overhead costs to provide agency management, legal, human resources, and financial support • Potential to function politically

Notes:

IT of the Future

As stated, delivery of IT services is evolving. Indications from the IT services community is that in the not-too-distant future the standard for providing IT applications to the users will return to an environment in which the processing is done centrally and the intelligence of the user's device is of little relevance. Instead of central processing being done on a mainframe, computer networked servers, including the "cloud", will host the applications and store the data and users' devices will be an interface.

Is the Future a Push Toward Centralization?

This new environment will provide opportunities for economies and efficiencies that could translate into savings on IT costs. It may also provide opportunities to change how IT services are organized. A more centralized model may better serve the future for providing IT services in support of state government businesses. A significant obstacle to moving toward centralization is agency fears over loss of control of agency IT assets, processes, and data.

Link to Citizen Cost Savings Suggestions

Several cost savings suggestions offered by Montana citizens during the Governor's accountability initiative involved consolidating IT assets and operations. One item the Governor announced that would be implemented is consolidation of networked servers into the new State of Montana Data Center (SMDC). The SMDC has an advantage toward consolidating agency servers that are scattered across state agencies and the various buildings they reside in because of the state-of-the-art cooling system incorporated in the SMDC for cooling the installed computer equipment. The cooling system will provide cost savings over current configurations of dispersed networked servers for cooling the electronic equipment.

The committee may want to consider the following pros and cons when discussing how to address the future of IT.

Pros	**Cons**
• Reduced costs for equipment, energy, and potentially FTE • Easier recovery from disaster • Redundancy due to backup site in Mile City	• Agencies perceive loss of control of agency data

How can the opportunities presented in the construction of the SMDC and the potential shift to providing IT services more centrally be leveraged to make state government more efficient in delivering services to the citizens of the state?

Notes: