



**MONTANA
DEPARTMENT OF
ADMINISTRATION**

Director's Office

Greg Gianforte, Governor
Misty Ann Giles, Director

January 12, 2023
Montana Legislature
Joint Subcommittee on General Government
State Capitol
PO Box 201706
Helena, MT 59620-1706

Re: SITSD Response to January 9, 2023 Questions from the Subcommittee

Dear Chairman Moore and Members of the Joint Subcommittee on General Government:

The Department of Administration, State Information Technology Services Division (SITSD), appreciates the opportunity you provided to explain our budget requests during this week's hearing. Attached are answers to questions we were requested to follow up on.

If you have further questions, please contact me or my staff, and we will make sure you receive the information you need. I appreciate the Subcommittee's interest in information technology matters and the potential for IT to enhance citizen services and drive efficiency.

Respectfully,

Kevin Gilbertson
Chief Information Officer
Department of Administration
State Information Technology Services Division



The following provides answers to the questions for the State Information Technology Services Division of the Department of Administration asked by the General Government Joint Appropriations Subcommittee, which include:

- Providing information showing that using ServiceNow is a successful endeavor (measurement against a metric)
- Details on the timeline for moving disaster recover to the cloud
- Additional details on HB 10 including a breakdown on what is included in the 'other' category in the presentation materials
- An update on the long-term strategic plan
- Benefits that other states have seen with IT consolidation and what benefits the State of Montana might be able to achieve

Each question and answer are detailed below. If there are additional questions, we would be happy to provide more information upon request.

ServiceNow Success

ServiceNow is a cloud-based platform developed for workflow and process automation. It provides ready to use solutions, workflows, and products that can be configured according to the organization's needs. Its services include IT service management, HR management, IT asset management, finance operation management as well as other offerings such as IT business operations, security operations and virtual chatbots.

In Montana, the use of ServiceNow has enabled the state to deliver services both internally and externally on a standard platform. This platform approach provides significant cost and time savings because it enables the reuse of common processes like payment processing, citizen login, and integration into the States' financial system (SABHRS).

Additionally, ServiceNow is a consumer off the shelf product that is constantly being improved for the thousands of customers that use the product. This provides ongoing upgrades, additional features and security of the platform to keep the system modern.

Specific functions of this platform in use at the State of Montana include hardware asset management, software asset management, project management, application portfolio



management, Customer service management, IT service management and knowledge management. Overall ServiceNow has 46 integrations with other state systems, supports over 25 business systems, and 21 agencies use it for IT service delivery.

The platform component of ServiceNow enables what is referred to as a low/no code development of applications. This essentially means that business users can now do what once was only able to be accomplished by software developers, a specialized resource that is both expensive and difficult to hire at the State. This expands the resources available to modernize State process as it decreases the reliance on IT staff to meet business needs.

Listed below are examples of systems that are supported on the ServiceNow platform that would have cost the state considerably more than the investment in the platform:

- LIV Brands App – Supports the full business processes at the Department of Livestock.
- DOJ Fingerprinting Appointments – Enables citizens to setup appointments online to have fingerprinting taken for background checks.
- DOC MERA - Rental Assistance – Provides rental assistance to citizens, this system has distributed over \$110 million in assistance. A custom-built system in a similarly sized state cost \$10 million to deliver.
- DOC Train Reservation – Supports train reservations for the train from Nevada City to Virginia City.
- DEQ Subdivision – Supports the subdivision processes at DEQ which as helped enable DEQ to reduce outstanding applications and provide real-time status of the process to applicants.
- DEQ Plan & Spec – Supports the plan and specifications at DEQ.

The end result is a common tool that reduces duplication, lowers the barrier to entry to create new applications, and saves considerable investment in custom applications.

Timeline for Moving Disaster Recovery to the Cloud

SITSD will no longer use the Miles City data center for disaster recovery by December 31st 2023.



By using robust public cloud services that are federal risk and authorization management program (FedRAMP) approved, the State of Montana is able to best meet its disaster recovery (DR) needs in a cost-effective manner when compared to other DR options available.

DOA State Information Technology Services Division House Bill 10 Details

SITSD has nine HB10 requests, including seven for cybersecurity, one for IT modernization, and one for network improvements. The cybersecurity HB10 requests (\$13.5m) will be used to protect the State's information assets and citizens' data from common threats and sophisticated cyber-attacks. These requests were selected based on their potential to reduce risks and their alignment with the State's IT Strategic Plan, including:

- 1) Enterprise Password Manager mitigates threats such as credential stuffing, password reuse, weak passwords, and password compromise by enabling and enforcing strong passwords so employees do not have to remember complex passwords for their many accounts.
- 2) Identity Panel is a replacement for an end-of-life product that automates adding access to new employees and removing access from terminated employees; this saves time by automating manual tasks and enhances security by reducing errors.
- 3) Network Forensic Capture Capacity Upgrade enables the State to capture and forensically examine data that is transmitted on our network, this is a critical capability for investigating cyber-attacks.

NOTE: The next four initiatives are a part of the State's Zero Trust strategy; Zero Trust is a modern information security framework that shifts focus from protecting the network to protecting the data. The proliferation of advanced persistent threats such as the Colonial Pipeline and SolarWinds cyberattacks, where cyber threat actors gained access to internal networks and established persistence for many months, make it more important than ever to modernize our security philosophy from "Trust but verify" to "Never trust, always verify". Zero Trust does not trust that your internal network is secure; it requires segmenting, encrypting, and logging everything inside your network. Zero Trust does not trust that everyone on your network should access all the data on your network; it requires continuously authenticating devices and users, and continuously authorizing access to data. The Zero Trust model also enables technology modernization and the shift to cloud and mobile applications.

- 4) Zero Trust Maturity Assessment involves an independent party assessing our technology



and processes to help us develop a Zero Trust roadmap to follow for the next three to five years.

- 5) Zero Trust for Endpoint Management enables the foundational functions of Zero Trust for data, assets, applications, and services. This technology enables or enhances other technical functions such as asset identification, license usage, vulnerability and patch management, and can reduce the time it takes to identify critical vulnerabilities from two weeks to two minutes.

NOTE: The next two initiatives focus on network segmentation, a critical element of the Zero Trust framework. Segmentation is a network security technique that separates the network into smaller isolated networks, reducing our attack surface area. Additionally, segmentation limits the scope and impact of successful cyber-attacks by greatly reducing the potential for cyber threat actors to pivot from a compromised system to other systems on our network.

- 6) Zero Trust for Endpoint Segmentation establishes tagging and profiling of employee endpoints which greatly reduces opportunities for cyber threat actors to pivot from a compromised workstation to another workstation.
- 7) Zero Trust for Firewall Segmentation reduces opportunities for cyber threat actors to pivot from a compromised agency to another agency.

The IT modernization (100% digital) HB10 request (\$4m) will be used to cover the cost to modernize and digitize manual business processes that currently exist in the state.

The Network Improvements HB10 request (\$4m) will be used to improve broadband access at state offices.

The final request of \$2 million is for an eDiscovery tool to help enable automation of FOIA requests.

Strategic Plan Update and Measures

The following provides a subset of the objectives and measures for the unified State IT Strategic Plan as developed in conjunction with all state CIO. Note the following details the draft measures that are in the process of being adopted by all state CIOs to ensure progress is made toward the



state strategic IT plan. CIOs meet quarterly to review. The following is still in a draft format and baselines are planned to be captured within the next 2 months.

An innovative workforce dedicated to reshaping the way IT Services are delivered

- Develop cross-training between agencies

Status:	In Progress
KPI	10% IT Employees Desk share with other agency / year
Target Date:	December 2023

- Develop an IT leadership program

Status:	In Progress
KPI	% toward target (25 people/year participating in emerging leaders program)
Target Date:	December 2023

- Adopt flexible workspaces and policies to compete with private sector

Status	In Progress
KPI	>80% Eligible IT Employees Have Telework Agreement
Target Date	December 31, 2022

- Develop a succession planning initiative to prepare for retirements

Status	In Progress
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KPI	% Agencies with Plan (Created/Updated) / Year
Target Date	December 2023

Strategic IT investment empowering delivery of citizen services

- Use the IT procurement request process to encourage or require standardized applications & licenses

Status:	In Progress
KPI	% Agencies with Complete Software Inventory (Target 100%)
Target Date:	December 2023

- Consolidate service catalogues with more descriptive information (total cost, who is using, etc.)

Status:	Complete
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- Centralized reporting of all IT projects

Status:	In Progress
KPI	% of Agencies Participating (100% Exec Branch)
Target Date:	June 30, 2023

- Measured ROI for all investments

Status:	In Progress
KPI	% Projects Reported ROI



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Target Date:	June 30, 2024
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Citizen one-stop shop anywhere, anytime, any device

- Identify all citizen services that need to be digitized, including digitizing forms and other materials citizens may currently have to submit by mail or fax

Status:	In Progress
KPI	% of Agencies Complete (inventory)
Target Date:	January 2023 (Executive Branch Minimum)

- Implement asset management to help track delivery effectiveness for all software assets

Status:	In Progress
KPI	% of Agencies Complete
Target Date:	December 31, 2023

- Complete single sign on (SSO) implementation for all applications

Status:	In Progress
KPI	% of Applications with SSO
Target Date:	June 2024

- Create a citizen-centric mt.gov site with a single point of entry for citizens

Status:	In Progress
KPI	% Services Served through Portal



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Target Date:	December 2024
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All enterprise products and services are widely leveraged to provide maximum benefit

- Require all solutions to go through architectural review to assure they meet current and future state goals and objectives

Status:	Not Started
KPI	% New Solutions Reviewed
Target Date:	April 30, 2024

- Develop a collaborative process for adopting enterprise applications

Status:	In Progress
KPI	% Agencies Onboarded (on new process)
Target Date:	April 30, 2024

- Move the State to a “Consumer Off the Shelf (COTS) First,” “Cloud Smart” approach

Status:	In Progress
KPI	% of new applications (target 80%)
Target Date:	June 30, 2024

- Implement organization change management within the implementation cycle of all enterprise products



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Status:	In Progress
KPI	% of Enterprise Projects with Organizational Change Management
Target Date:	December 31, 2023

The State's information assets and citizens' data are protected

- Integrate secure coding practices guidelines

Status:	In Progress
KPI	100% Agency Adoption (documented code review process – by Survey Qtr)
Target Date:	FYE25

- Register State information systems in RSA Archer

Status:	In Progress
KPI	100% IPs Registered (beyond 30-day grace)
Target Date:	March 2023 (after start turning off access)

* Note: RSA Archer is an automation tool that assists businesses in automating their risk and compliance programs.



- Implement offensive security program

Status:	Complete
Outcome:	Staff are trained to conduct offensive security activities. The offensive security approach helps organizations understand how hackers would approach their systems and how they can take preventative measures. Moreover, they can identify any weaknesses or loopholes in the system to ensure that essential data stays safe.

- Conduct third party independent assessment

Status:	Complete
Outcome:	The state has a report from a third-party detailing strengths and weaknesses of the program to be used for future planning.

- Consolidate State security operations under state Chief Information Security Officer

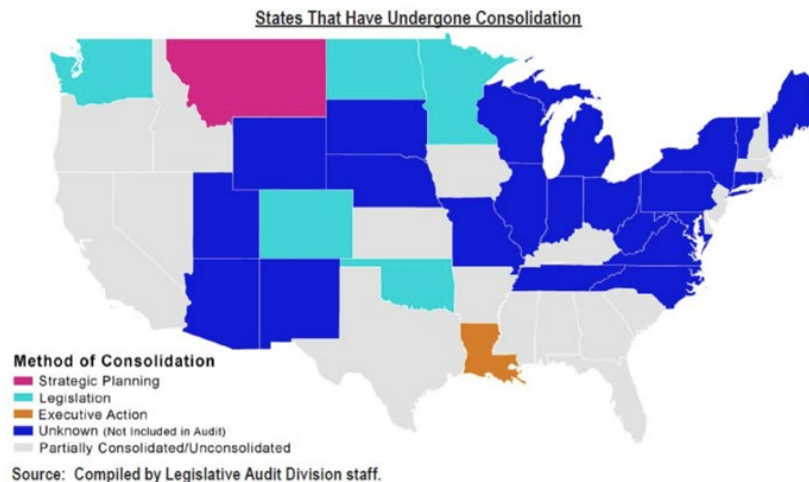
Status	In Progress
KPI	% risk management positions reporting to CISO
Target Date	October 1, 2023



Consolidation Benefits in Other States and Possible Benefits for Montana

SITSD will continue to work on providing specific savings that might be recognized on consolidation efforts. In the meantime, the following provides an overview of the benefits and issues found in other states.

As of 2023, more states have moved to consolidate their Information Technology organizations than those who have not. Overwhelmingly, the reasons for consolidation have included the reduced spending and savings associated with the reduction of duplication in technology. However, many states have also emphasized that the consolidation of IT provided a number of other benefits, including improved security and a better ability to address IT staffing challenges.



The following sections provide some basic detail about each of these areas of benefit. This is, of course, not a comprehensive list, but provides examples of the benefits.

Cost Savings and Spending Reductions

Centralization was a topic of a legislative audit of the State Information Technology Services Division (SITSD). While focused on centralizing security functions, the audit team identified the following advantages of consolidation:

- Create economies of scale by renegotiating vendor contracts and sharing software licensing amongst agencies.
- Reduce operational costs with consolidation of common IT services for end users.
- Promote enterprise integration and applications.
- Centralize infrastructure maintenance and upgrades.



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- Less competition between SITSD and agencies to hire security professionals.

Additionally, savings and spending reductions have been realized by consolidation in other states. While Montana does not have the scale to save as much as other states, it is worth noting that some sample savings include:

- Oklahoma estimated \$17+ million of reduced spending and projected savings (2017, Bo Reese CIO)
- Louisiana announced that the state saved about \$75 million through consolidation (LAD report on Montana Security Consolidation)

Consolidation takes several years to accomplish in a manner that does not compromise the integrity of IT within the state. These shifts take time, but over time results like those above could be recognized.

A significant saving that might be recognized in Montana is right-sizing IT by eliminating duplication of personnel. Across all agencies in Montana, there are 1,073 IT positions available with 146 vacancies as of January 11, 2023. To provide context to this number, approximate numbers of IT positions in other states as verbally communicated to the Montana CIO by executives of those states include:

- North Dakota: ~650 IT positions for 34,246 total state and local government employees
- Connecticut: 648 IT positions for 26,863 total state employees
- Iowa: ~1,200 IT positions for ~26,000 total state employees

Consolidated states like North Dakota and Connecticut have a significant lower number of total IT positions than Montana. Unfortunately, Montana will not be able to immediately reduce to that size due to the extreme number of custom solutions that require unique resources across agencies due to our divided nature that has, in the past, encouraged custom development. Moving toward a more effective organization will take time and effort to modernize and reduce duplication.

Security Improvements

Centralizing security functions was an important step in improving security by consolidating support of user devices and creating dedicated teams of security experts, states were able to improve their overall security posture. This benefit was emphasized by Oklahoma, North Dakota, etc.

Security centralization was also the subject of a Montana legislative audit in 2022 (<https://storymaps.arcgis.com/collections/0da6b76b0d9f4fbb95d7ba1b7965ec5d?item=1>). The following are some of the advantages for consolidation as presented by the legislative audit team:

- Improve Security Posture/Cost Avoidance
- Strengthen IT security with the adoption of standard controls and tools to reduce impact and cost of cyber incidents.
- Reduce diversity and complexity of IT environment.



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- Improve support for legacy systems by utilizing the best IT talent on critical enterprise systems and infrastructure.
- Create knowledge transfer by training security to provide services to multiple agencies.

IT Staffing Challenges

Staffing challenges for state governments across the US are not a new phenomenon; however, they have been exacerbated by private sector responses to COVID-19. That is, the private sector has dramatically outpaced the public sector in pay and work flexibility and we are now competing in new markets we previously were not up against. As a result, IT employee churn is at an all-time high. For example, in 2021, the Montana DNRC posted a security position to fill and was unable to find a qualified candidate for over a year.

By sharing resources, the State should be able to overcome the problem of high vacancy rates caused by:

- Cost of skills needed are too high
- Finding and recruiting the right skill sets is difficult
- Larger departments can fund and implement staffing needs; mid-range and smaller departments individually cannot fund
- The lack of resources makes innovation inconsistent and pushes State IT further behind in the industry
- Operating and maintaining legacy systems is unsustainable with resources with the appropriate skill set becoming harder to find as the technology ages, resulting in higher maintenance costs

Recommended Approach to Consolidation

There are a number of approaches to consolidation from full unification of all resources into a single organization, to developing business units that group agencies to share resources, to a hybrid approach where some resources are shared and some continue to be federated.

SITSD recommends a hybrid approach in Montana. That is, we believe it is best to identify duplication of resources in central IT and the agencies that are scalable. Each agency does have a unique function that is not duplicated. For example, only one agency, DLI, has an unemployment insurance system. However, we were able to consolidate resources such as service desk, desktop support, and security into SITSD. We believe the model employed with the consolidation that has already occurred at DLI can be replicated to result in savings.

By consolidating key roles like security, service desk, desktop support, and other duplicative roles, savings could be realized by reducing the number of vacancies over time (currently 146 statewide across all agencies). This has been a model that has been effective in other states enabling a reduced number of personnel to support the duplicative roles. Additional savings could be recognized by standardizing tools and processes for these roles.