Presentation to the 2017 Health and Human Services
Joint Appropriation Subcommittee

TECHNOLOGY SERVICES DIVISION

Department of Public Health and Human Services (DPHHS)

DPHHS Mission: *To improve and protect the health, well-being and self-reliance of all Montanans.*

Technology Services Division Mission: *To provide effective and efficient Information Technology that support the mission of the Department.*

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OVERVIEW

The Numbers:
- Number of desktops/laptops managed for the department: 3,240
- Number of offices with IT equipment – 184 buildings in 54 cities and towns.
- Number of network connections - 110
- Number of major computer programs used in the department – 150
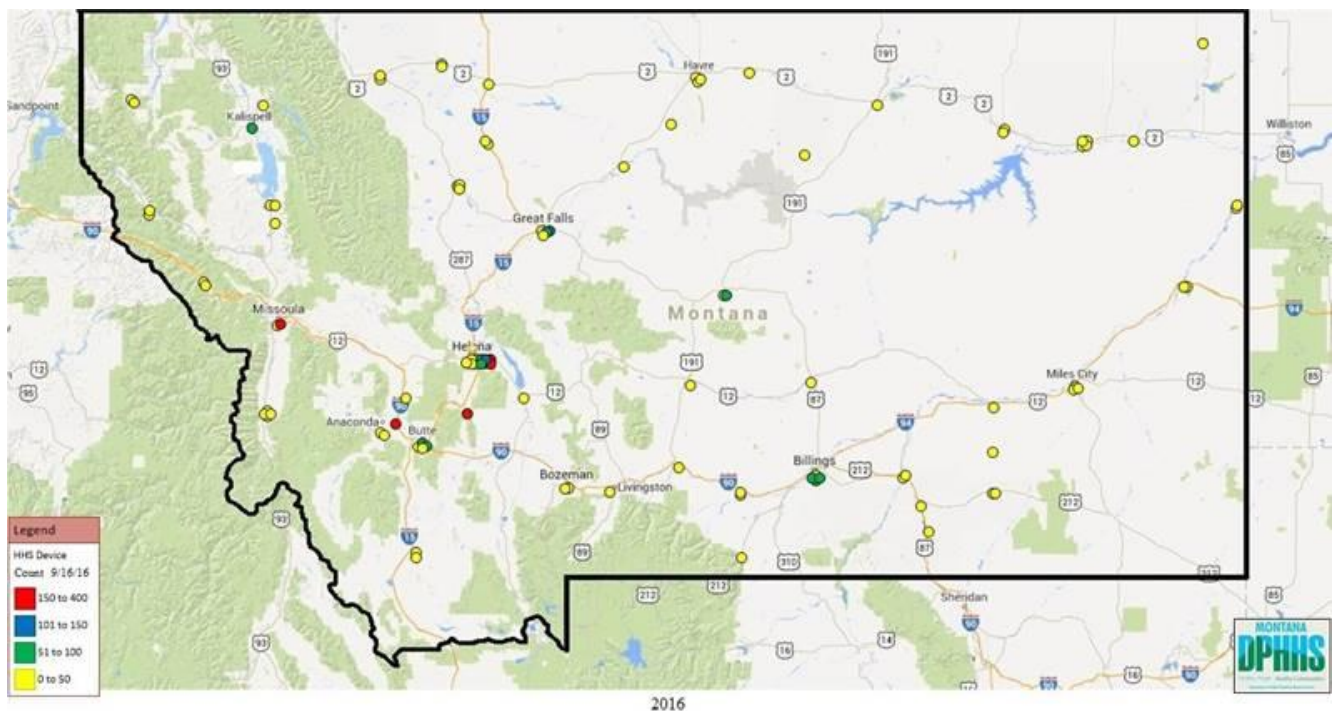- Number of IT projects – 130
- Number of FTE – 62.6

Figure 1- Location of DPHHS offices

The Technology Services Division (TSD) is the "computer shop" for the department and manages the various computer systems and applications that support the department. The mission of TSD is to provide efficient and effective Information Technology (IT) to the department 24 hours a day 365 days a year.

The various applications that the department runs enable it to manage programs that protect children and adults, improve public health, and provide health care, food, and other forms of assistance. Without effective IT operations the department can't meet its mission of protecting and improving the health, well-being, and self-reliance of all Montanans

TSD provides these major services to the department:

- Computer Administration and Support – maintenance and administration of desktop, laptops, mobile devices, and associated software.
- Helpdesk Service – department-wide services to support employees using computers and systems.
- Network and Communications – administration of computer network and phone services.
- System Development – development, programming, and implementation of new systems.
- System Operations – maintenance and operations of various systems including legacy applications.
- Security and Compliance – IT system security risk analysis and assessments of system. Implementation and enforcement of policies and procedures to protect the systems used by the department.
- IT Project Management – planning, organizing, leading, and managing tasks and resources to implement IT projects.

- IT Contract Management – management of various contracts for IT services and external vendors in support of department applications and systems.

The department has some of the most complex and resource-intensive IT systems in the State. It is a primary user of the State of Montana Mainframe with the state's child welfare system (CAPS) and the child support enforcement system (SEARCHS) operating on the system. A small amount of funding was provided in HB2 by the 2015 legislature to start the replacement of CAPS.

The department also has over 150 major separate computer applications supporting its programs. These applications include such areas as health facility licensing, laboratory management, Medicaid payments, client assessments, accounts receivable, disability determination, and vital records. One of the goals of the department is to manage all these applications as a portfolio with a defined system lifecycle. A large number of applications desperately need upgrading to the most recent versions of web services and databases. In addition, a number of systems need redesign and replacement to fit with new program business and security requirements.

The department has over 110 separate locations with network connections across the state including four major facilities, one contracted facility, and one facility that is closing. TSD manages over 3,200 personal computers in addition to over 450 tablets and various mobile devices. Because DPPHS has offices all over the state, network bandwidth at affordable prices to these locations is a key driver of technology adoption. A reliable high-speed network allows the department to implement such things as a video learning system, remote desktop management tools, phone systems, desktop video conferencing, document imaging, electronic health records, and remote medical imaging.

Other business drivers for the department are various federal and state rules and regulations. The key technology regulations for DPHHS are ones associated with HIPAA, IRS Publication 1075 (security), and the National Institute of Standards and Technology (NIST) security standards and guidelines. The department has implemented a NIST-based security risk management framework, which requires a significant amount of staff work to ensure compliance.

Major Bureau Functions:

Network and Communications Bureau (NCB):
NCB's primary function is desktop user support and administration. It is also responsible for managing network and phone services, file servers, desktop applications, user provisioning, and operational security.

Technology Services Center (TSC)
The TSC provides technical support and resources for over 3,000 department employees and 5,000 non-employees, professional service providers, and internet users that use or interact with the department's services. These services include help desk, basic desktop and application support, mainframe support, and mid-tier server operations support for the department. Approximately 3,100 requests for help are opened per month at the TSC. It is the goal of the TSC to resolve as many customer requests as possible during the initial call. The first call resolution rate of the TSC is currently 76%.

Network and Communications Support

NCS main job is to administer desktop computers. NCS deploys operating systems, software applications, and software updates. NCS also manages network connections for the department and oversees phone systems requests working with DOA/SITSD. NCS monitors compliance settings on desktops, manages the hardware inventory and software inventory installed on computers.

Network Security Unit (NSU)

NSU provides operational security services such as monitoring and alerting from various monitoring tools deployed by DPHHS and DOA/SITSD. NSU also responds to all access requests and works with the data owner to appropriately grant and rescind access to department systems.

Information Systems Bureau (ISB):

ISB's primary function is application development and system operations. It is responsible for doing internal computer programming and development for custom programs needed by the department that can't be otherwise obtained commercially. It also operates and manages servers and databases used by the department to run a vast majority of its applications.

Computer Application System Development and Support

The Application Development and Support Sections (ADSS) develop, enhance, and maintain applications that support the department's business functions with a primary focus on critical business services. This focus includes defining enterprise architecture to provide common business services across multiple divisions. ADSS supports two separate development technologies, Oracle Forms and Java, both being typically connected to an Oracle database. Most ADSS applications use Oracle Forms. New work uses Java and Mulesoft. ADSS is actively working to define enterprise-class services that will reduce the size and scope of new or replacement applications.

Computer Application and Database Hosting

The Database and Web Group (DAWG) Section provides Oracle Database Hosting and Web/Application Server administration. Servers are primarily Linux and are virtualized. They reside in the State of Montana Data Centers in Helena and Miles City and are hosted by DOA/SITSD. The DAWG configures and manages database and web/application servers. Database hosting is primarily done in an Oracle environment. Web/Application servers include Oracle Application Server (Weblogic), Tomcat, JBoss, and Apache. Hosting services include production support of online and batch processing, and 7x24 on-call support for applications that require it.
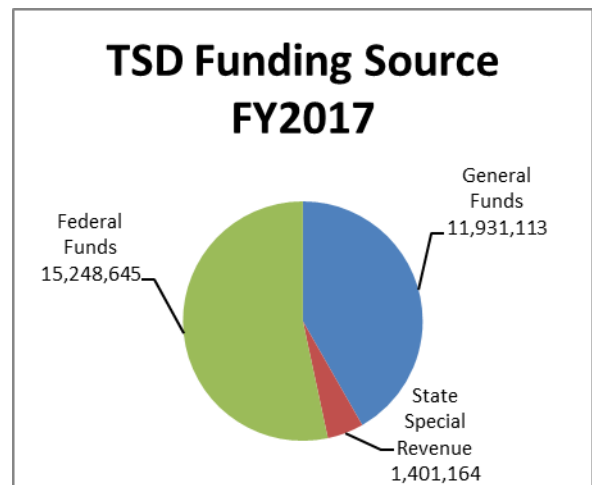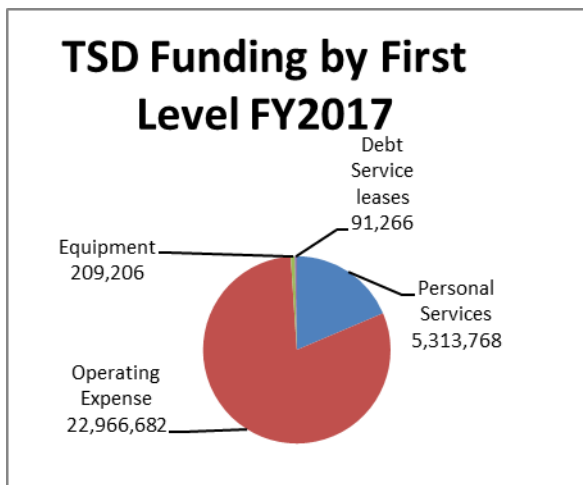
Project Management Bureau (PMB):

The Project Management Bureau (PMB) is the IT Project Management Office (PMO) for the department. The PMO provides centralized and coordinated management of large information technology projects. PMB is responsible for ensuring the success of system development projects by staffing them with qualified professionals. Maintenance and operations services are provided for selected existing large systems. PMB identifies and develops IT project management methodology, practices, and guidelines. PMB also acts as a centralized clearinghouse for IT project policies, procedures, templates, and other project tools.

Compliance and Security Office (CSO)

The Compliance and Security Office is responsible developing an information security program that follows the National Institutes of Standards (NIST) risk management framework. This includes developing information security policies, conducting information security risk assessments, and ensuring the Department complies with information security regulations and policies. The CSO is also responsible for IT procurement management; IT contract management; and managing federal Advanced Planning Documents (APDs) for the Departments applications.

Current Budget/Expenditures:

		2017 Budget	FY 2018 Request	FY 2019 Request
Technology Services Division				
	FTE	62.60	62.60	62.60
	Personal Services	5,313,768	5,300,428	5,323,803
	Operating	22,966,682	23,960,406	23,962,216
	Equipment	209,206	209,206	209,206
	Grants	0	0	0
	Benefits & Claims	0	0	0
	Debt Services	91,266	91,266	91,266
	Total Request	**28,580,922**	**29,561,306**	**29,586,491**
	General Fund	11,931,113	12,566,730	12,578,552
	State Special Fund	1,401,164	1,503,533	1,505,098
	Federal Fund	15,248,645	15,491,043	15,502,841
	Total Request	**28,580,922**	**29,561,306**	**29,586,491**

TSD Funding by First Level FY2017

Debt Service leases 91,266
Equipment 209,206
Personal Services 5,313,768
Operating Expense 22,966,682

TSD Funding Source FY2017

Federal Funds 15,248,645
General Funds 11,931,113
State Special Revenue 1,401,164

Department Goals:
1. Better recruitment and retention of staff
2. Improving relationships with our customers
3. Continuous process improvement

2019 Biennium TSD Goals and Objectives:

Department of Public Health and Human Services
Technology Services Division
Goals and Objectives for the 2017 Biennium

Goal 1: Use information technology to support and enhance department program service delivery and increase efficiencies.

Information technology is an essential tool used to support and improve the department's program service delivery. The department will continue to look for ways in which information technology can add value to its business functions. Examples include document management, document imaging, system integration, web-based applications, internet portals, and public/provider access.

Benefits: Increased efficiency and effectiveness in performing the department's business functions.

Measures: Objectives will be measured by monitoring and reporting (Biennial Report to the IT Plan) progress and accomplishments against the goals and objectives outlined in DPHHS's Agency IT Plan. This plan is filed on a biennial basis with the State CIO and is a statutory requirement (MCA 2-17-523).

Objectives

> **Objective 1-1**: Start to replace the legacy State Automated Child Welfare Information System (CAPS) that has reached end-of-life.

> **Objective 1-2**: Continue activities to migrate, replace, or discontinue all other secondary Mainframe systems. (Note - the mainframe is still used as a file transfer platform for various Federal interfaces).

> **Objective 1-3**: Continue planning efforts to implement electronic health records systems and replace legacy EHR systems for the department's facilities.

> **Objective 1-4**: Replace the Document Management System (DMS) with the new Enterprise Content Management system from SITSD.

> **Objective 1-5**: Continue to expand the use of eGovernment services for client interactions including reporting of benefits.

> **Objective 1-6**: Extend and enhance the framework of the self-service client portal for the department.

> **Objective 1-7**: Implement and manage secondary IT systems and programs as required by the department.

> **Objective 1-8:** Implement mobile technology applications for citizen and employee access to systems. Enhance existing systems to provide mobile device access where possible.

Department of Public Health and Human Services
Technology Services Division
Goals and Objectives for the 2017 Biennium

Goal 2:   Ensure that information technology resources are efficient, responsive, cost-effective, and available when needed.

The department must acquire and maintain the adequate number, type, and quality of IT resources needed to support its systems. IT resources including staff, hardware and software tools, must be maintained at the appropriate levels to adequately provide this support. IT resources must be responsive and provide the required availability and redundancy in a cost-effective manner.

Benefits: Increased efficiency, cost-effectiveness, responsiveness, and availability and redundancy of IT resources to support the department's business functions.

Measures: Objectives will be measured by monitoring and reporting (Biennial Report to the IT Plan) progress and accomplishments against the goals and objectives outlined in DPHHS's Agency IT Plan. This plan is filed on a biennial basis with the State CIO and is a statutory requirement (MCA 2-17-523).

Objectives
> **Objective 2-1:** Continue to implement an enterprise ITSM governance structure based on the ITIL 2011 framework.

> **Objective 2-2:** Continue to implement IT project portfolio management based on PMBOK framework.

> **Objective 2-3:** Continue to maintain and enhance an Information System Inventory of all department systems that includes information necessary for system life cycle planning and management.

> **Objective 2-4:** Implement a division wide career ladder system for workforce development following a successful pilot of the system with ISB.

> **Objective 2-5:** Implement increased network bandwidth in various locations across the state.

> **Objective 2-6:** Request sufficient staffing resources to accomplish the department's IT objectives.

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Goals and Objectives for the 2017 Biennium

Goal 3: Implement a modern enterprise architecture that supports interoperability and sharing of data and functionality.

Create an Enterprise Architecture plan that leverages State (conceptual Architecture Plan) and federal (Medicaid Information Technology Architecture) guidelines and initiatives that will allow systems to maximize their functionality and increase efficiencies and effectiveness.

Benefits: Increase the value of the department's investment in information technology by defining an Enterprise Architecture that allows systems to maximize their function and data through re-use and sharing.

Measures: Objectives will be measured by monitoring and reporting (Biennial Report to the IT Plan) progress and accomplishments against the goals and objectives outlined in DPHHS's Agency IT Plan. This plan is filed on a biennial basis with the State CIO and is a statutory requirement (MCA 2-17-523).

Objectives

Objective 3-1: Continue to integrate the Enterprise Service Bus and web services into more Department systems.

Objective 3-2: Enhance the capabilities and system coverage of the Department's business intelligence tool, Pentaho and evaluate other potential BI tools.

Objective 3-3: Implement additional functionality and components of the Enterprise Service Bus and Enterprise Data Exchange.

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Goals and Objectives for the 2017 Biennium

Goal 4: Maintain and operate a National Institutes of Standards and Technology (NIST) Based Security Program.

The department's systems and data are a critical and valuable resource that is required for the continued success of program business functions. Access to this data and these systems must be appropriate, allowing access only for those with a legitimate need-to-know. Data must be available but protected from both deliberate and accidental theft and destruction.

Benefits: Ensuring the confidentiality, integrity and availability of data allows the department to provide services to Montana citizens.

Measures: Objectives will be measured by monitoring and reporting (Biennial Report to the IT Plan) progress and accomplishments against the goals and objectives outlined in DPHHS's Agency IT Plan. This plan is filed on a biennial basis with the State CIO and is a statutory requirement (MCA 2-17-523).

Objectives

Objective 4-1: Continue to implement NIST-based security controls to ensure the security, privacy, availability, and integrity of data and systems.

Objective 4-2: Update and promulgate Information Security Policies that comply with the NIST cyber-security framework.

Objective 4-3: Continue the implementation of multi-factor authentication on systems that contain protected, sensitive, or private information.

Objective 4-4: Continue the implementation of additional encryption for those systems that contain protected, sensitive, or private information.

Objective 4-5: Continue to implement enterprise security information and event management for department systems as appropriate.

Objective 4-6: Continue to implement and develop a NIST based risk management system for system lifecycle management.

Present Law Adjustments:

SWPL - 1 - Personal Services -
The budget includes a reduction of $13,340 in FY 2018 and an increase of $10,035 in FY 2019 to annualize various personal services costs including FY 2017 statewide pay plan adjustments and increases to state share costs for health insurance passed by the 2015 Legislature, benefit rate adjustments, longevity adjustments related to incumbents in each position at the time of the snapshot, and vacancy savings.

	General Fund Total	**Total Funds**
FY 2018	($6,262)	($13,340)
FY 2019	$4,711	$10,035

SWPL - 2 - Fixed Costs -
The request includes $2,659,381 in FY 2018 and $2,661,052 in FY 2019 to provide the funding required in the budget to pay increases in fixed costs assessed by other agencies within state government for the services they provide. Examples of fixed costs include liability and property insurance, legislative audit, warrant writer, payroll processing, and others. The rates charged for these services are approved in a separate portion of the budget.

	General Fund Total	**Total Funds**
FY 2018	$1,155,036	$2,659,381
FY 2019	$1,155,820	$2,661,052

SWPL - 3 - Inflation Deflation -
This change package includes a reduction of $760 in FY 2018 and $621 in FY 2019 to reflect budgetary changes generated from the application of inflation and deflation factors to specific expenditure accounts. Affected accounts include food, postage, natural gas, electricity, gasoline, and others.

	General Fund Total	**Total Funds**
FY 2018	($241)	($760)
FY 2019	($176)	($621)

New Proposals:

NP - 555 - Appropriation Rebase -
The Executive Budget includes targeted budget reductions across most agencies. The Executive proposes Technology Services Division Appropriation Rebase totaling $1,104,897 per year was included in the agency reduction plan submitted in compliance with 17-7-111, MCA.

	General Fund Total	**Total Funds**
FY 2018	($512,916)	($1,104,897)
FY 2019	($512,916)	($1,104,897)

NP - 556 - IT Convergence Savings -
In accordance with Executive Order 09-2016, state agencies have migrated information technology assets to the state data center and taken advantage of other enterprise IT solutions. The estimated savings for the Department of Public Health and Human Services is $560,000 per year.

	General Fund Total	**Total Funds**
FY 2018	$0	($560,000)
FY 2019	$0	($560,000)

Proposed Legislation: None