# Central Services & State Librarian's Office Report
## June and July 2016

Prepared for the August 10, 2016 Commission meeting
by Jennie Stapp, State Librarian

This report represents accomplishments of Central Services staff: Stacy Bruhn, Carol Churchill, Sara Groves, Colleen Hamer, Tom Marino, Cindy Phillips, Kris Schmitz, Jennie Stapp, Marlys Stark and Joe Tosoni.

The State Librarian and the Central Services staff at the Montana State Library (MSL) provide services and support to all MSL programs to ensure that all staff can efficiently conduct their work because they have access to technology, human resource management, financial expertise, promotional services and administrative leadership.  To be effective, it is essential that the State Librarian and Central Services staff work with library programs to provide policy, technology and communication solutions that balance program needs with the larger library need for fair and ethical policies, transparent and accountable financial systems, integrated, secure, sustainable library technology designed to adapt to the constant, rapid pace of technology change, communication strategies that effectively engage stakeholders while making the best use of the limited staff time and financial resources available and overall administrative leadership that is collaborative, thoughtful, creative, well communicated and forward thinking.

Central Services staff includes the following employees:
- State Librarian, Jennie Stapp
- Central Services Manager, Kris Schmitz
- Accounting Tech, Carol Churchill
- Administrative Assistant, Marlys Stark
- Data Coordinator, Colleen Hamer
- Web Manager and IT Lead, Tom Marino
- GIS Web Developer, Stacy Bruhn
- GIS Database Administrator, Scott Story
- Network Administrator, Cindy Phillips
- Communications and Marketing Coordinator, Sara Groves

This work plan is built around the core goals contained in the 2012 through 2022 MSL Long Range Plan.  By completing the tasks set forth within this work plan we intend to efficiently and effectively fulfill the mission of the Montana State Library.

**Goal One—Content**

1. MSL acquires and manages relevant quality content that meets the needs of Montana Library users.

1.1. Improve the quality of the public library statistics we collect.

The reliability and consistent quality of the data and statistics we collect annually from public libraries tell a compelling story about public library services around the state.  In order to continue to improve the quality and usefulness of these data, and to ensure that libraries and State Library staff are best able to articulate these stories in a way that is transparent and authoritative, the State Data Coordinator will work with the Statewide Library Resources Manager, the Statewide Library Consultants, the State Librarian and the Public Library Statistics Task Force to more clearly define the statistics we collect, to simply reporting tools to minimize the possibility for errors, better educate librarians about how they can collect and report the necessary data, and to improve the process of quality control through staff collaboration.

As a part of the process to improve the collection of public library statistics, staff will evaluate vendor solutions that are becoming more widely used nationally, to determine if use of an off-the-shelf, statistics solution would improve the efficiency of our data management process. **(Originally reported February 2016)** Two primary vendors, Counting Opinions and Baker & Taylor, comprise the marketplace to provide online public library statistics collection and analytics.  After meeting with the vendors and reviewing their software products staff determined that adopting an "out of the box" solution would not significantly improve the overall efficiency of our current statistics collection process, nor would it enhance our current public library statistics program in a meaningful enough way to warrant the additional annual cost, as well as the workload to migrate to a new system, and the need to train librarians on the use of a new system.  Further, our current system is fully integrated into the Library Directory, an in-house application that we maintain, so implementation of a new system would require both our staff, and librarians around Montana, to maintain public library information in two systems, increasing workload and creating the risk that the systems become out of sync. When asked to evaluate whether or not the vendors could provide the additional functionality found in the Library Directory, in addition to the statistics module, we were told that our Library Directory is far more advanced than any other system in the country and that it would take considerable work and expense to recreate it.  Based on our investigation, staff determined that statistics should remain a module of the Library Directory and the functional requirements of the statistics process have been included in the project planning for the Directory re-write.

In additional to our own evaluation of statistics vendors, the Institute for Museum and Library Services (IMLS), the federal agency to which we submit our statistics has a new vendor, AIR.

Hamer, the State Data Coordinator, is preparing for their new collection process.  FY '15 public library statistics are due on May 13.

**(Originally reported April 2016)** FY '15 public library statistics have been submitted to IMLS.  To submit statistics, Hamer had to work for the first time with a new national vendor selected by IMLS to administer the statistics program.  Additionally, Hamer created and lead a training on the statistics process as well as available online reporting tools to librarians at the Broad Valleys Federation Meeting.  The same training will be offered at the Pathfinder Federation Meeting in May.

**(Update: August 2016)** Thanks to the hard work of Colleen and Stacy, the FY '15 public library statistics data are now available online through the MSL website.  Web reporting tools have also been updated.  The FY '16 statistics collection period is open and Library Directors have until November to submit last year's statistics. Making good use of these statistics is an important element in a library's advocacy effort.

1.2. Library Directory re-write

The Library Directory is a powerful tool used by Central Services Staff.  It is used to collect and manage public library statistics, it manages registration for trainings and events, it serves as a knowledge base of library documents, etc.  The current Directory application was written many years ago on software that is no longer utilized by MSL so there is a compelling reason to rewrite the Directory.  Ahead of that rewrite, staff will scope the business needs of the application to improve and prioritize current functionality.

**(Originally reported December 2015)** Statewide Library Resources staff has completed the collection of "user stories" in order to scope and prioritize both the core functionality and additional features of the new Directory. Based on their prioritization, development work is on schedule to commence after the first of the year.

**(Originally reported February 2016)** Based on the significant scope of the Library Directory and the diverse user stories collected, the decision has been made to build the new Library Directory in a series of small projects.  Anticipated timeline for a complete re-write is 12-18 months however staff will roll out various modules of the new Directory as they come online.  As was the case with the rewrite of the Digital Atlas, staff are making use of the Agile project management process whereby they identify small development "sprints" and meet on a daily basis in small, standup, meetings to report progress, answer questions, and identify and address development concerns.  A project launch meeting was held on January 25 to discuss the initial project to create the necessary authentication system to support the variety of functions or "roles" the system supports.  Examples of roles range from entering and editing library location and demographic information, to registering for the Fall Workshops, to entering public library statistics, to managing continuing education credits and certification, etc.   Unlike the current system, where practical and feasible, the new Library Directory will utilize integrated technologies that we do not have to build and maintain in-house.  For example, we plan to make use of the State's E-pass authentication system, rather than maintaining our

own. Using E-pass will reduce the need for staff and librarians to maintain multiple passwords for different state applications and will improve the overall security of the Library Directory. **(Originally reported April 2016)** IT staff worked successfully with Montana Interactive, the company that implements the State's eGov programs, to implement Montana ePass as the authentication services for the new Library Directory.  As MSL begins to further utilize Montana ePass patrons will be able to use a single account for the Library Directory, Digital Library services, and other State of Montana applications.

See the SLR report for additional updates regarding the Library Directory rewrite.


1.3. File server updates

IT Staff plan, implement, and support the file server and database environment where MSL digital content resides.  Library programs continue to need increasing amounts of file storage space for their growing collections of both public information and agency records.  We are currently making maximum use of the capacity of our Storage Area Network (SAN).  While we should have sufficient storage space to handle existing program storage needs and anticipated requests for a few years, the library will need to develop a plan for addressing future storage needs.  A holistic review of the MSL storage environment needs to be undertaken which will consider both the types of data storage available (existing data storage as well as options such as those available from the State Information Technology Services Division (SITSD) or cloud based offerings) as well as the existing demands on MSL data storage resources including space needed for the storage of raw data, production and publication datasets, records management, archiving, and backup and disaster recovery.

**(Originally reported February 2016)** Staff has begun to evaluate various storage options against business needs like data access and redundancy.  We were initially excited when SITSD announced new data storage costs that were significantly lower than previous fiscal years however, upon verification we learned that the published rate was in error and costs would be approximately five times higher than our average annual spend for data storage and redundancy.

**(Originally reported April 2016)** After an initial error in rates, SITSD has reduced data storage costs to a level that is competitive with the cost to manage internal hardware in previous fiscal years. MSL staff and SITSD staff are continuing to discuss data storage including back-up and disaster recovery options and performance parameters for production data accessed through applications and MSL websites.  Should MSL determine that SITSD storage options prove viable, we will include this service as part of our information technology fixed cost request during the 2017 legislative session.  Given the Governor's and Legislative goal to move agencies to the State of Montana Data Center (SMDC), this request is likely to be approved.

**(Originally reported June 2016)** On May 10, the Department of Administration announced a new executive order from the Governor regarding state information technology assets.   The executive order has not yet been formally issued but it is considered imminent.   Under the

executive order SITSD will implement a plan to "converge" servers, storage, and cloud computing in the SMDC.  The plan will be fully implemented by December 31, 2017.  Agencies will be required to make use of "enterprise" services such as telecommunications, email, electronic records content management, etc.  Agencies will have the discretion to make decisions about their computing needs to meet agency business needs.  Where ever possible, enterprise services, such as server and storage environments, will be used to support agency needs.  There is no vision to consolidate IT staff.  Because of MSL's plans to migrate storage and much of our production server environment to the SMDC next fiscal year, we are slated to be one of the first agencies migrated under this executive order.  MSL staff is currently working with SITSD staff properly scope the move in order to fully understand costs though SITSD has stated that the goal for agencies' budgets is to be cost neutral.

**(Update: August 2016)** Staff have begun working with SITSD to plan for the migration to the State of Montana Data Center.  A kickoff meeting is scheduled for August 4th to discuss the migration needs and MSL's computing environment.  MSL's current virtual server environment makes us of Zen Ware and the SMDC virtual server platform uses VMware so the migration will involve a change of server operating systems.  MSL IT staff will complete VMware training ahead of the migration.  SITSD will create a test platform for us to test the migration of our host servers before actual migration of the servers and data takes place.  According to SITSD's project plan, MSL should complete our migration by mid-October.

1.4. Database environment overhaul
In FY14/15 staff created a virtual database environment that consists of development, production, and publication servers.  During FY16 we will migrate remaining databases off of our two remaining physical servers.  This will allow us to retire or repurpose two physical servers.  We will continue working with these stakeholders to minimize the impact of these changes and we are confident that this project can be completed by the end of the calendar year.
**(Originally reported February 2016)** The database migration was completed on time by the end of the calendar year.  Not only does accomplishment mean that we are able to support our databases in a more current database environment, it represents the achievement of a long-term goal to fully virtualize our MSL's server environment.  With the exception of the Montana Shared Catalog servers, all MSL servers are now virtualized and can easily be ported to different on or offsite host hardware when hardware is refreshed or in the event of a disaster.

**Goal Two—Access**

2. MSL provides libraries, agencies, and its partners and patrons with convenient, high quality, and cost-effective access to library content and services.

## 2.1. MSL Web updates

With more and more library content being made available digitally, the primary point of access for this information is increasingly becoming the library web site and web based applications made available through the website. The next step for the MSL web site is to review and update the overall design of msl.mt.gov and the top level program pages using the recent proposal from Edge Marketing and Design. A sneak peak of this design is planned for the Commission at their December commission meeting. Migration from DNN, the State's enterprise web content management system (CMS) to an in-house CMS is also being considered in FY16. This migration would use existing MSL hardware and software and will allow MSL IT Staff to have full control of the MSL web infrastructure using .NET, CSS and Bootstrap and would also allow MSL Staff to administer our backend SQL Server databases for our websites.

**(Originally reported December 2015)** Staff completed the development of a new in-house CMS. The migration was much simpler than anticipated and, given the similarities to the DNN CMS, staff were easily able to adapt to the new editing environment. Rollout of a new MSL website that integrates recommendations from Edge Marking and Design is ahead of schedule. The current launch date is scheduled for December 7, 2015.

## 2.2. Application updates

In addition to program web content, MSL supports a number of web based applications to assist with data discovery and data access. The GIS Web Developer continues to update library web applications that reside on outdated technology. The goal for this year is to convert the remaining applications, including the Library Directory, developed in classic ASP to ASP.Net.

The planning phase for the Library Directory, will begin this fall. Updating the Library Directory will demand a high level of collaboration between IT and the Statewide Library Resources (SLR) program, with SLR taking the lead as the project owner and the GIS Web Developer doing the majority of the programming work. A rewrite of the current Cadastral application should be considered at the end of FY16 or beginning of FY17.

**(Originally reported February 2016)** GIS staff have begun to scope a rewrite of the Cadastral Application (see the Digital Library report for more information).

## 2.3. ArcGIS Server service migration

Also supporting the MSL data access efforts is the MSL ArcGIS Server environment. ArcGIS server is a software tool for creating web mapping services. Many different types of web mapping service can be created with ArcGIS Server. The most common are basic map services that are used to support MSL web applications. By the end of calendar year 2015, the

GIS DBA will migrate remaining web services to the 10.3 environment.  This will allow us to repurpose one physical server that supports older ArcGIS Server services. Decommissioning the old ArcIMS server technology is dependent only on remaining Montana Natural Heritage Program (MTNHP) needs; a single feature service used by the Montana Department of Transportation (MDT). Once a decision to decommission ArcIMS is made, the final virtual ArcIMS server can be shut down.

**(Originally reported February 2016)** With the exception of the decommissioning the ArcIMS server, this migration has been completed.  Staff continues to work with the vendor Esri, MTNHP and MDT to evaluate options to serve the data made available through the feature service.  Current ArcGIS feature services fail under the large amount of data serviced by MTNHP and, to date, Esri has not been able to offer a satisfactory solution.

2.4. IT Security Planning

With much of our data intended for public access, from a security perspective our primary concern is not limiting user access to our resources.  Even so, it is important to properly secure our IT systems to ensure data that needs to be secured is, and to remain in compliance with State Information Technology Services Division (SITSD) standards so that we can continue to leverage the resources of the state network to provide patrons with the best available access to our collections.

In the last year SITSD has released an exhaustive set of Baseline Security Controls for state agencies to follow to ensure the security of the state network. MSL IT staff will review this document to identify which, if any controls we are not in compliance with. Once this review is complete, we will make recommendations to library management for correcting or improving the security of our IT environment.

In addition to recommendations that come out of the review of baseline security controls, IT staff has already identified a number of specific security related tasks for the coming year. With updates to program file server environment staff will continue to clean up the security groups that we use to control access to data on the file servers. Staff is also researching systems for managing administrative accounts in an organizational setting and plan to develop and implement a new administrative login policy in the coming months.

**Goal Four—Consultation and Leadership**

4. MSL provides consultation and leadership to enable users to set and reach their goals.

4.1. Broadband planning

Increased access to higher speed, more affordable broadband continues to be a critical need voiced by libraries, other community anchor institutions, the economic development community and other sectors of the State.  The State Librarian will continue to build opportunities to bring libraries to the table to ensure that, as broadband planning develops at the state level, libraries benefit.  This work includes participation on the Governor's Education Superhighway initiative work group and additional efforts that may form following the release of the recommendations of the Main Street Montana Interconnectivity and Telecommunications Key Industry Network (KIN) anticipated this fall.  The State Librarian will also be active at the national level as the Chair of the Schools, Health and Libraries Broadband Coalition (SHLB) Board of Directors and as a member of the American Library Association/Chief Officers of State Library Agencies Library E-Rate Planning & Assessment Project advisory council.  Through this project, the State Librarian will be able to advise on and evaluate the development of best practices for the implementation of various elements of the E-rate modernization order of 2014.   Developed over two years, these best practices will likely result in financial benefits to Montana libraries in the form of increased use of E-rate. **(Originally reported February 2016)** At the November meeting of SHLB, I elected to serve another year as Chair.  The Coalition continues to focus on fundraising and organizational planning.  If current fundraising milestones are achieved, the executive director who currently works under contract, will move to full time before the end of the year.

In December the Mainstreet Montana KIN released its recommendations to the Governor.  Recommendations include:
1. Creating an interactive broadband map;
2. Commitment of $25M in funds from the Legislature to support public-private broadband deployment projects;
3. Legislation to make the permitting process more friendly and efficient for broadband deployment; and
4. Creating a Broadband Advisory Task Force.

Action to adopt these recommendations, in my view, would represent a positive step forward in developing a statewide broadband strategy.  The full KIN report is included in the Commission meeting packet.

In considering how the State Library may support increased broadband access and affordability to all Montana libraries, staff have begun to evaluate public library data to determine how much broadband would be required to support a 5Mb/s per device model under a single statewide procurement vehicle.  Based on the number of devices (staff and public access computers) and average wireless sessions reported in the FY '14 public library statistics, total bandwidth needed to reach this threshold is only 8-10 Gbps.  We have begun working with the Montana Telecommunications Association to evaluate an affordable cost

model for service and will then consider funding options including E-rate and a state budget request.

**(Originally reported June 2016)** Based on our analysis, MSL is prepared to request through executive planning process approximately $3.5M in state funds and federal spending authority to administer a statewide contract to purchase a minimum of 100Mbps broadband for all public libraries in Montana.

4.2. Cooperative public education programs

The Communications and Marketing Coordinator will encourage local libraries to participate in cooperative public education programs.  This work involves coordinating and motivating librarians and trustees, organizing and publicizing projects and events, and coordinating the statewide distribution of information and news releases related to library activities and issues. The Communications and Marketing Coordinator will maintain regular contact with information specialists at other public agencies, including local organizations that have related interests. She will arrange for meetings, exchanges of information and documents, and possible joint news releases, or other communications.  She will provide or arrange for training for librarians and trustees in how to use the promotion material and campaign strategies in local communities and will answer questions from others regarding the materials and the campaign.

**Goal Five—Collaboration**

5. MSL promotes partnerships and encourages collaboration among its users.

5.1. Ready 2 Read program development and enhancement **(Note: this work plan item has been moved to the SLR report under the work of the Lifelong Learning Librarian)**.

**Goal Six—Sustainable Success**

6. MSL is efficient and effective (measured against partner and patron outcomes) and is engaged in fulfilling its mission.

6.1. Digital Library reorganization

The State Librarian will work closely with the Digital Library Administrator and the Central Services Manager to manage the reorganization of the Digital Library.  Key to the success of the reorganization is a continued and deepening focus on our users as articulated in the project charter. New lead staff identified during the reorganization also need support and training as the develop their skills as new supervisors.

**(Originally reported December 2015)** Digital Library leads have completed initial supervisory training offered by the State Professional Development Center. Schmitz worked closely with Stapp and Hammer to create a fully developed Digital Library budget structure

and all prior FY '16 expenditures were moved into the new budget structure.  She and Churchill also updated the state budgeting and human resources systems to accurately reflect the new organizational structure.  Finally, Schmitz used this opportunity to cross-train Hamer as a backup in the financial office.

**(Originally reported February 2016)** The 2nd quarter financial report presented to the budget fully reflects the newly adopted budget for the reorganized Digital Library.

6.2. Library Development Study Task Force recommendations

The State Librarian and the Statewide Library Resources Administrator, in collaboration with task force Chair, Bill Cochran, will lead the Library Development Study Task Force through a process of information gathering to formulate recommendations to the State Library Commission that will focus library development services and resources on 21st century library outcomes.  Final recommendations are due to the Commission in February 2016 in time to inform the FY'16 Library Services Technology Act award and the EPP process.

**(Originally reported December 2015)** The Task Force, with support from State Library staff, completed a series of eight listening sessions and received comments from nearly 80 respondents to an online survey.  Many of the respondents represented multiple people as the survey was completed jointly by library boards around the state.  The Task Force met on November 19 to draft their formal recommendations to the Commission which will be presented at the December 9 Commission meeting.  Staff is very excited by the nature of the recommendations which are very outcome-based and can be used to prioritize and benchmark library development services.

**(Originally reported February 2016)** Staff will present the final recommendations of the Task Force to the Commission at the February meeting.  Based on Commission action, staff will begin to formulate a plan for the creation of benchmarks making use of the Network Advisory Council and Commission in that process.  Staff and the NAC will also be asked to make recommendations about how to allocate existing resources and to make suggestions for new budget requests in order to implement the recommendations.

**(Update: August 2016)** The Library Development budget is now aligned with the task force recommendations so that staff and the Commission can see how resources are being allocated according to the recommendations.

Further implementing the recommendations means that we cannot continue to plan for Library Development objectives and activities without a significant cultural shift in how we think about the recommendations and how they drive our work including the need to incorporate the data we collect to plan, implement, and evaluate our efforts.  Staff have begun to talk about how we make use of the recommendations.  We also recognize an important role for the Network Advisory Council to plan in informing how we implement the recommendations.  To continue the cultural shift, we are planning for training for the staff and the NAC.  The training will

include an overview from the RIPL conference as well as training on the use of data in planning.

6.3. Biannual Executive Planning Process

The State Librarian, senior managers, the Communication and Marketing Coordinator, advisory committee members and the Commission will work together to create and present compelling arguments for ongoing and increased legislative support to be reflected in Executive Planning Process (EPP) priorities.  These priorities will be presented to the Commission in April 2015. **(Originally reported February 2016)** The Governor's Office of Budget and Program (OBPP) planning announced their timeline for the EPP process.  EPP requests must be submitted to OBPP by May 30.  This timeline may necessitate the need for a teleconference Commission meeting to approve final EPP items ahead of the June meeting.  Additionally, Stapp and Schmitz attended a meeting with Budget Director Villa and Montana Library Association representatives Judy Hart and Nanette Gilbertson to discuss the need to update the statutory appropriation for state aid ([22-1-327 MCA](#)) in the 2017 session.  At Director Villa's direction, the State Library will prepare legislation, extending the term of the statutory appropriation to a date yet to be determined.  This legislation will be submitted to the Governor's Office as part of our EPP request.  It is important to note that the state aid funding would remain tied to the statutory appropriation rather than being included in House Bill 2, the state budget bill. **(Originally reported April 2016)** Schmitz completed training on the State Budget System (IBARS) on creating standard budget journal and reporting levels to capture FY 17 legislatively appropriated budget as the starting point for the 2019 biennium budget. '

Additionally, Stapp and Schmitz met with staff from the Department of Administration (DOA) to evaluate space options within MSL.  MSL staff desires to enact plans to remodel the lower level of the library to make better use of the overall space and enhance our conference room facilities.  To move forward, DOA needs to identify new tenants to occupy space that would be vacated by MSL.  To date no tenants have been identified by DOA will continue to evaluate options. **(Originally reported June 2016)** EPP were presented for final action to the Commission on May 25.  They were then submitted to the Governor's Office for consideration.

6.4. Internal Control policy audit

To promote adequate systems of Internal Control the Central Services Manager will work with key staff and partner agencies to audit, monitor and update the current Internal Control Policy.  This work ensures that the State Library is able to function effectively and transparently and that we achieve the highest levels of financial accountability. **(Originally reported February 2016)** The annual Internal Control review is underway.

**(Originally reported June 2016)** Managers have completed their annual review of our Internal Controls.

6.5. Biannual financial audit

The Central Services manager will coordinate the Legislative Audit for FY 14 & FY 15.  She will work with the Legislative auditors to gather data, answer questions and provide needed backup to demonstrate that MSL is an effective and efficiently run agency and good stewards of the State resources.

**(Originally reported December 2015)** Schmitz welcomed the Legislative Auditors to the State Library and work has begun on the Financial Audit for FY 14 & FY 15.  Their initial visit allows the auditors to plan for their formal audit which will take place in January.  Significant focus is being placed on the addition of the Montana Land Information Act funds to the State Library budget. This biennium represents the first time those funds are material to our budget as opposed to being contracted dollars so further scrutiny is warranted.

**(Originally reported February 2016)** Legislative Auditors resumed their work for two weeks in January and may return again in February to conclude the audit.

**(Originally reported April 2016)** Schmitz completed field work and write ups with Legislative Auditors to complete the financial audit.  We currently await the final report and will draft a response to any recommendations or findings.    The audit will be heard by the Legislative Audit Committee at a date to be determined.  At that time the audit will become part of the public record.

**(Originally reported June 2016)** MSL's financial audit is complete.  It will be heard by the Legislative Audit Committee on Friday, June 17.  At that time the audit will be made public.

**(Update: August 2016)** MSL's Financial Audit for FY 14 & 15 was accepted by the Legislative Audit Committee on June 17.  Considerable focus of this biennium's legislative audits across state government is on local government revenues, including the tracking of the Montana Land Information Act recordation fee.   Though MSL has no authority to audit local governments to ensure that recordation fees are properly recorded and deposited, the audit report suggests that MSL run a monthly County Collections report to reconcile the amount of funds received by the Department of Revenue to what we show in our account.  We were not aware of this reporting option prior to the audit because this reconciliation was not a part of the process followed by the Department of Administration to reconcile this revenue when they managed the Montana Land Information Account. MSL has begun running this report and the process has been added to our internal controls manual. This recommendation was the only finding in an otherwise clean audit.

6.6. Systems and Hardware Updates

Data Center Virtualization

MSL has acquired the hardware needed to complete the process of virtualizing the MSL data center in the coming year. It has taken several years, but we are very close to completing this transition. Most of the remaining physical servers already have virtual server replacements up and running and we just need to migrate the remaining data or services to the new servers. This is the case for AGS01, AGS02, and SQLINT (database and ArcGIS Server machines).

IT Back-up and Disaster Recovery

With the completion of the virtualization process, updates to our file server environment and our web applications nearing completion, this is a good time to evaluate our IT Back-up and Disaster Recovery systems. Our current backup and disaster recovery model is more of an ad-hoc approach that has been developed over time to address needs as they arose. A model that looks at overall agency needs and the resources available should provide more consistent and efficient support for the library. This project should be part of the larger review of the MSL storage environment.
**(Originally reported February 2016)** Refer to updates on goals 1.3, 1.4, and 2.3.

Planning a move to the State Data Center

Another opportunity that IT staff is now in a position to pursue, now that our server environment have been virtualized, is the migration of some (or all) of our servers to the State of Montana Data Center (SMDC) or other third party server hosting environment. We are currently at capacity in the MSL Data Center (MSLDC) for both network connections and backup power. Moving some of our servers to an alternative data center would free up both power supplies and network ports. Moving our public web resources - primarily MSL web sites, application servers, and FTP servers – out of the MSLDC will also reduce the amount of external traffic on the library network, freeing up those resources for internal needs. Finally, the SMDC has a level of monitoring and support that we are unable to provide at the MSLDC (it is unclear what other third party hosting options would be able to provide related to this). While this is important for all of our IT resources, it is especially important for the web resources that we want to make available to patrons on a 24x7 basis.
**(Originally reported February 2016)** Staff has begun testing a virtual machine at the State of Montana Data Center (SMDC) with the goal of moving our MSLWEB server to the SMDC. MSLWEB resides in the DMZ and serves as a proxy to our internal .NET applications and also hosts static HTML and classic ASP sites. If successful, this move will allow MSL IT staff to use the easily configurable Netscaler to replace the Apache Reverse Proxy currently on MSLWEB, receive 24/7 support at the SMDC and reduce future hardware costs.
**(Originally reported June 2016)** Refer to information regarding the IT Convergence executive order.

## 6.7. IT Asset Management

With input from IT and other library staff, the GIS Web Developer has finished an IT Asset Management System and will continue to add additional functionality as needed. The IT Asset Management System is available to all MSL staff through the library intranet site. It serves as an inventory and tracking tool for hardware, software, applications, web services, and possibly raw data as well as published data products. An On Call dashboard will developed this year that will streamline On Call Alerts and Processes for IT Staff on call.

## 6.8. Policies reviews

In an effort to improve communication between IT staff and library programs staff will review and document several agency IT policies in the coming year. One of these policies will be the agency on-call policy which was developed to ensure that MSL IT systems are monitored over the weekends. While the existing policy has been effective for several years, it was developed prior to the creation of the MSL IT program. With the reorganization that has occurred in the library over the last couple of years and updates to our IT systems, it is important that the on-call policy be reviewed and updated so that it continues to meet the library's needs.
**(Originally reported February 2016)** With the release of modern applications to replace the old Bundler, Topofinder and Digital applications, and now that the virtualization of the MSL data center is complete, staff can almost fully support on-call needs from anywhere. With this in mind, staff is testing the ability to support weekend on-call without the need to be physically in Helena. Further evaluation of data and user business needs will be conducted to determine what additional recommendations can be made to improve the agency on-call policy. Final recommendation for a revised policy will be brought to the Commission at a later date.
**(Originally reported April 2016)** Schmitz is reviewing the staff handbook and Commission policies and will make recommendations for updates to policies as necessary. This work will likely result in modification to our elimination of Commission policies. Policies will be brought to the Commission for review and action at future meetings.
**(Originally reported June 2016)** The first of what will be an ongoing process to update Commission policies will begin at the June Commission meeting when the Commission will be asked to delete several policies that are either replaced by statewide policies or which are no longer applicable. Additionally, the Commission will be asked to take action to update the MSL Broadband Pay Plan.

## 6.9. Digital Library branding and marketing

With input from the Digital Library Division, the Communications and Marketing Coordinator will prioritize key programs and services for development of marketing plan and corresponding marketing materials that will help re-brand Library Information Services and the Geographic

Information Program as part of the overall Digital Library reorganization.  The Communications and Marketing Coordinator will design and produce or manage the design and production of program informational and educational materials such as brochures, newsletters, magazine and newspaper articles, radio spots, on-line information services (e.g., Internet web page) and videos to provide pertinent, current and technically accurate information to the public about MSL's digital library services.

6.10. MSL-wide strategic planning

Outcomes from the Digital Library reorganization and the recommendations from the Library Development Task Force will be used to initiate a strategic planning process that will be led the Commission and supported by the State Librarian and staff. The strategic planning process will commence during the spring of 2016.
**(Originally reported April 2016)** At the direction of the Commission Stapp issued a limited solicitation to select a facilitator to guide the strategic planning process.  Solicitations are due March 31, 2016 and will be reviewed at the April Commission meeting.
**(Originally reported June 2016)** At their April meeting the MSL Commission selected Ned Cooney as the facilitator to guide our strategic planning process.  The Commission will participate in a planning session with Mr. Cooney on June 9.

**(Update: August 2016):** The Commission and MSL managers participated in a work session with facilitator Cooney.  During the work session the Commission conducted a Strengths/Weaknesses/Opportunities/Threats (SWOT) analysis and identified stakeholders that Cooney will interview ahead of the August 9 work session. Subsequently staff contacted approximately 15 individual stakeholders to inform them that Cooney would be contact them as part of the strategic planning process.

<u>**Additional updates, August 2016:**</u>

The Montana State Library is pleased to welcome Joe Tosoni to our staff as the GIS Database Administrator.  Joe has a degree in Geography with a certification in GIS from the University of Montana.  Most recently Joe worked for SITSD as the GIS Enterprise Architecture Administrator and a SQL Database Administrator.  MSL staff came to know and appreciate Joe's hard work and depth of knowledge while working with him in this capacity.  In particular, Joe was instrumental in helping to manage the migration of MSL's, and other agencies' migration from Montana's platform to Esri's Managed Services platform in 2015.   Joe is a welcome addition to our staff, replacing outgoing GIS Database Administrator Scott Story.
We are also thrilled that Sara Groves has accepted the Lifelong Learning Library position.  She will begin in this new role on August 22. As a result, we are beginning the recruitment process for a new halftime Communications and Marketing Coordinator.  We are targeting October 1 as a start date for the new employee.