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# **Southwest Minnesota State University**

# Information Technology Services July 2013 – June 2016 Strategic Plan

#### Introduction

There is little dispute that information technology has become an integral aspect of higher education. In many ways it is transforming the core activities of colleges and universities. SMSU is no different than any other academic institution in this regard. As a result, it is imperative that sound strategic planning for how information technology resources will be developed and deployed is essential for the long-term success of the University. This need is exceedingly important in an era of limited financial resources that are available for public higher education institutions. Information technology resources are critical for such areas as innovation in instruction, business process enhancement, data-driven decision making and enhanced communications services among others.

To support the information technology services strategic plan development, SMSU's Information Technology Services (SMSU ITS) department engaged in a multi-year process focused on obtaining input from across the University community. The local feedback has been supplemented by extensive efforts among SMSU ITS staff to assess the general state of information technology trends and directions—specifically those trends and directions within higher education.

#### **Planning Process**

Specific activities that were used to drive the development of this strategic plan began in earnest in the Spring of 2011. There were several key activities included in the process. First, as part of a broader Presidential Transition Report development process initiated by MnSCU, there was a site visit by the Chief Information Officer from Minnesota State University, Mankato and a team of his senior leadership in the Spring of 2011 to meet with various constituent groups on campus regarding the state of information technology services at SMSU. At his invitation, the SMSU Chief Information Officer participated in these sessions. SMSU ITS staff also met as a group and individually with the Minnesota State University, Mankato team. Second, there were "Listening Sessions" with various campus constituency representatives conducted by the SMSU Chief Information Officer in the Spring of 2011 and the Fall of 2011. Third, a Fall 2012 site visit was conducted by MnSCU System Office Information Technology Services staff at the invitation of the Chief Information Officer.

The results of these activities were summarized and reviewed with SMSU ITS staff and the University Technology Advisory Committee as permitted. As a result of this review, the CIO worked with the University Technology Advisory Committee (UTAC) during the 2011-2012 academic year on the development of four strategic directions for a university-wide focus. Following the development of the strategic directions, the CIO worked to develop a series of specific goals and objectives within each of the strategic directions. A series of drafts of the strategic plan including goals and objectives were reviewed with the UTAC during the 2012-2013 academic year. The most recent review was conducted

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in April 2013. Following the UTAC's last review, an additional draft was developed and circulated for review among SMSU ITS staff and the President's Cabinet. This later draft included proposed new vision and mission statements for SMSU ITS.

Note: The Presidential Transition Report itself is considered a confidential document pursuant to Minnesota Statute 13.392 and thus was not distributed.

As a next step, SMSU ITS will be engaged in the development and implementation of a tactical plan to accomplish the varied goals and objectives outlined for the three year period beginning July 1, 2013. It is anticipated that the tactical plan will need to be dynamic in light of factors that will be outside of SMSU ITS's direct control including budgetary and staffing resources available and/or new University or MnSCU initiatives that may require a shift in priorities.

SMSU ITS will incorporate an ongoing assessment and evaluation of its performance in meeting the goals and objectives identified into currently existing processes. These processes include reports provided to the University Technology Advisory Committee, the President's Cabinet and performance reviews.

#### **Planning Factors & Assumptions**

It is important to note that the strategic plan outlined in this document incorporates the fact that SMSU's information technology environment is not, nor will be, a stand-alone environment. As a member of the MnSCU System, SMSU is reliant upon core administrative software applications managed by the System Office's Information Technology Services division. These applications include the Integrated Student Records Systems (ISRS), Degree Audit Reporting (DARS) and Hyperion Brio. In addition, the System Office manages a system wide implementation of course management software—Desire2Learn (D2L). Also, the System Office is in the process of implementing a system wide deployment of Event Management Systems—a classroom and event management & resource scheduling software—and StarID—an identity management service. The System Office also provides leadership and support in the area of wide area networks and information security.

In addition to the System Office, SMSU is a member of the Southwest/West Central Higher Education Organization for Telecommunications & Technology (SHOT)—one of six regional consortia that comprise the Learning Network of Minnesota. SHOT supports several communications systems and services (e.g., video conferencing, web conferencing, online media management and telephony) that are critical to University operations. Another key external partner for SMSU is Minnesota State University, Mankato (MSUM). MSUM manages a systemwide deployment of Image Now—a document management system. The Image Now deployment is an example of an emerging trend among MnSCU institutions to develop shared services to support critical information technology operations across the system. SMSU also has key relationships with vendors to support applications utilized on campus. These include "on-premise" systems such as the Blackboard Campus Card service and "cloud-based" constituent relationship management (CRM) systems like Hobson's Connect and Retain.

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Other factors and assumptions incorporated into this strategic plan are as follows:

- 1. The level of staffing available for SMSU ITS will not change significantly during the next three years.
- 2. Budgetary resources available to SMSU ITS will not change significantly during the next three years.
- 3. Demands for new information technology resources and tools, in addition to support for existing services, will continue to grow from within the University community.
- 4. Factors such as the increased consumerization of technology and the growth of mobile devices will continue at an exponential pace.

#### **SMSU Information Technology Services Vision**

We will be both a proactive and responsive service organization that fully supports the University community in the innovative utilization of information technology resources to make SMSU a university of choice.

# **SMSU Information Technology Services Mission**

It is our mission to provide a wide spectrum of quality information technology services and support that meet the requirements of the entire University community.

#### **Governance and SMSU ITS Organizational Overview**

SMSU ITS is part of the Academic and Student Affairs division at SMSU. The Chief Information Officer (CIO) reports to the Provost. The CIO is also on the President's Cabinet.

SMSU has several standing technology services related committees that serve to provide input into SMSU ITS services. These committees include: 1) University Technology Advisory Committee; 2) Student Technology Fee Committee; 3) SMSUFA Academic Technology Committee; and 4) the Information Security Team. Also, on an as needed basis, ad hoc committees or task forces are created to develop recommendations for addressing specific issues. A recent example of such an ad hoc group was the Technology Accessibility Task Force (TATF) that met during the Fall of 2012. The TATF developed recommendations for the University to pursue to address the issue of providing technology enabled services that meet accessibility targets for persons with disabilities.

As a unit, SMSU ITS is unique in its organizational structure compared to other universities and colleges within MnSCU and elsewhere in the nation. The CIO position also serves as the Executive Director for two regional organizations in southwestern/west central Minnesota. These organizations are SHOT and Minnesota Tele-Media (MTM). SHOT is one of six regional consortia that make up the Learning Network of Minnesota. As an organization, SHOT focuses on providing network communications services to its

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member institutions. SHOT staff are housed at SMSU and SHOT core infrastructure is located in the SMSU Data Center. MTM is a cooperative organization that involves SMSU, two other regional higher education institutions and the SW/WC Service Cooperative—a regional K-12 service organization. MTM provides research, planning, funding assistance, implementation and organization of telecommunications services for its members.

SMSU ITS is a relatively flat organization. There are four service bureaus within SMSU ITS. These service bureaus are Data Management and Institutional Research Services, the Technology Resource Center, Electronic Media Services and Data Center/Network Services. With the exception of Electronic Media Services staff, all SMSU ITS staff report directly to the CIO. Including the CIO, there are 13 employees comprising 11.92 FTE. There are also two Graduate Assistant positions funded. One of these positions primarily supports Technology Resource Center operations. The other position primarily focused on providing instructional technology support. There is also a cadre of 20-30 student workers each year that work in the Technology Resource Center and Student Computer Labs.

Including the CIO, SHOT has 4 employees comprising 3.0 FTE. The Director of Institutional Research Services reports to the Provost.

SMSU ITS does not manage the University's web site. The Web Services Office is part of the Office of Communications and Marketing under the Vice President for Advancement. SMSU ITS staff work closely with the Web Services Office and have staff located in that office.

The SMSU ITS organization chart is attached as Exhibit 1.

### **STRATEGIC DIRECTIONS**

- 1. A highly technologically literate and informed campus community.
  - Services and activities will be performed which meet the needs of faculty, staff and students seeking to thrive in today's rapidly evolving technology-enabled learning environments and workplaces.
- 2. A reliable, accessible, secure and advanced technology infrastructure.
  - On an ongoing basis, ensure that the information technology based tools deployed for the SMSU community's use meet these criteria to the fullest extent possible.
- 3. A clearly understood, customer-service oriented and agile information technology services organization.

ITS will continue to pursue strategies and steps that are customer-service focused, ensure responsiveness to University needs, and successful completion of projects. Special emphasis will be given to making ITS more transparent to the University community.

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4. Support for tools and processes that enable increased efficiency and innovation across all areas of the University.

As higher education faces the dual challenges of increasing competition and increased demands for accountability and efficiency, the SMSU community will need access to resources and expertise that support individual and collective efforts that make the University more effective in meeting strategic priorities.

# **Goals & Objectives**

Strategic Direction #1 -- A highly technologically literate and informed campus community.

Services and activities will be performed which meet the needs of faculty, staff and students seeking to thrive in today's rapidly evolving technology-enabled learning environments and workplaces.

- **Goal 1:** Expand the scope of information technology-related training activities and support for faculty and staff on deployed and planned technologies.
- Objective 1: Complete the two-year pilot initiative begun in FY 2013 in conjunction with the Student Technology Fee Committee that funds a Graduate Assistant position focused on providing instructional technology support assistance for faculty. Assistance provided includes such methods as direct phone support, group presentations, and scheduled consulting visitations. Collect data to evaluate the effectiveness of the initiative. Based on pilot results, formulate a recommendation to the Provost regarding continuation of the Graduate Assistant approach vis-à-vis other staffing support solutions.

A new GA (Maria Kalyvaki) was hired for this position for the 2013-14 academic year as the first GA (Sapana Joshi) graduated. Data collected by the GA's demonstrated a significant increase in contact time with faculty and staff. Contact time includes a variety of methods. Pursuant to a review of the data, the Student Technology Fee Committee recommended funding for the Graduate Assistant position to continue for the 2014-15 academic year. To support the GA's, the CIO pulled together a subset of ITS staff for monthly meetings to assess ongoing needs pertaining to instructional technology support and develop action plans. Discussions on how instructional technology support can be increased in conjunction with University wide strategic plan development are ongoing.

Maria Kalyvaki continued to serve as the Instructional Technology GA in the 2014-15 academic year. Data collected continued to show an increase in contact time with faculty and staff. ITS is seeking a new GA for the 2015-16 academic year as Maria's GA term ended. The subset of ITS staff referred to in the previous update is now part of the Technology Resource Center/Client Services team that is part of a new team-based ITS organization that took effect in July 2014.

Objective 2: Expand D2L Users Group concept into other technology tools (e.g., Adobe Connect, Image Now) user groups including the potential for broader academic technology and administrative technology tools user groups.

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ITS staff are exploring expansion of the Users Group concept with other tools. A Fall 2014 survey to be conducted among faculty/staff will be used to assess which technology tools have most potential for vibrant user groups.

At this time, the Users Group concept has not been expanded to other technology tools. In large part, this decision was made based on a trend of lower turnout for the D2L Users Group and anecdotal comments from faculty regarding their availability for such group discussions. The above-referenced survey was completed and has been used to inform some specific training and awareness activities for faculty and staff. One such example was the training held in May on "Distributed Conferencing Technologies" and the June training developed by Education faculty with a grant from Minnesota Tele-Media on the use of mobile devices in instruction. Other trainings on tools within the new Adobe Creative Suite were also held. In general, ITS has found more targeted workshops, whether that be a special training or department level sessions to be more effective.

Objective 3: Develop a centralized "technology resource library", including links to readily available online resources for faculty and staff to access on a just-in-time basis.

ITS staff explored the possibility of developing a contract with Lynda.Com during the past year after an initiative undertaken by the MnSCU Campus Service Cooperative to negotiate a system wide contract was unsuccessful. The negotiations were unsuccessful as Lynda.Com required all MnSCU institutions to purchase the service. Terms provided to SMSU for an individual institutional contract were not equivalent to those offered as part of a systemwide agreement. Given that several University constituencies have expressed skepticism about the value of services like Lynda.Com vis-à-vis free tools such as YouTube, such a service has not been funded through such avenues as the Student Technology Fee and other available funding. ITS is continuing to explore options for providing just-in time resources for the University community.

In lieu of a Lynda.Com type of service, ITS has focused on promoting training tutorials of specific tools (e.g., D2L & Adobe Connect) that are made available by the vendors for those services. Links to these materials are promoted to constituents and made available via the ITS web site.

Objective 4: Investigate the use of social media and/or collaboration tools to enhance the value of the User Groups contemplated (see Objective #2).

Per status of Objective #2, limited investigation into the use of social media and/or collaboration tools to support User Groups has been initiated. ITS has opened up a twitter account for use with important technology related announcements for the University and is also testing collaboration tools internally that may have value for User Groups.

As the User Groups concept has stalled, further investigation into the use of social media and/or collaboration tools to support them has halted. However, ITS continues to use these tools to

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support operations. For example, Adobe Connect can be used as an impromptu mechanism to collaboratively review digital materials.

Objective 5: Initiate routine "Tech Tips" sessions for faculty and staff regarding select technologies in broad use (or viable for broader use) across campus.

Planning for routine sessions is still in progress. Some small trainings during the lunch hour on topics such as "smart board tools" have been initiated. However, these trainings have only been periodic to date.

As referenced above, several specific training sessions were conducted during the 2014-15 academic year (see Strategic Direction 1, Goal 1, Objective 2). Other than cited above, other trainings held included trainings on the use of Outlook for calendaring services and Cyber Security awareness.

Objective 6: Utilize the SMSU ITS web site as a dynamic information sharing site including such elements routine blogs, video tutorials, etc. from SMSU ITS staff regarding new features or advancements in specific tools.

As a precursor to a broad incorporation of the various elements described above, ITS is rebuilding the departmental web site in Summer 2014 to make it more user friendly and easier to maintain. In the interim some use of tools like Camtasia video/lecture capture were implemented for video tutorials including a tutorial on how to activate a StarlD. The use of other tools such as the Kaltura media management tool to post tutorials are under investigation.

As noted above, ITS redesigned its website during the summer of 2014 to be more streamlined and user friendly. Among the prominent features of the ITS home page are two status buttons regarding technology services for both SMSU and MnSCU. Also, a link to the ITS ticketing and knowledge management systems which allow campus users to submit a service request or find solutions to issues they are experiencing is prominently featured on the ITS home page. Also, as indicated above, links to video and written tutorials on key services are also provided. ITS continues to investigate ways in which the website can be a more dynamic repository of information.

Objective 7: As part of a broader departmental level consulting process (See Strategic Direction 4, Goal 1, Objective 1), continuously assess technology training needs in conjunction with academic department chairs and administrative department directors.

Limited progress has been made with the Departmental Consulting program to date. Program initiation is a focus for FY 15. However, it is important to note that an example of this program was initiated with the Administrative Assistants group in FY 14. ITS staff attended several Administrative Assistants group meetings during the year. This participation led to the development of some targeted training activities by ITS staff on using Microsoft Excel software to work with and interpret student data available from Data Management. Also, a specialized

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smartboard training was provided for the English Department. It is anticipated that the ITS Services Awareness Survey previously identified will be a useful instrument to support the program including the identification of training needs.

ITS initiated its Departmental Consulting program during the past year. Initially, the program was limited to Academic departments. Three academic departments—Science, Nursing and the Library—invited ITS to one of their department meetings. The sessions served to provide a means for ITS staff to share information in a smaller environment and hear specific needs from the faculty. The sessions also served as a springboard for professional development activities. One such activity was the development of a summer workshop on "Distributed Conferencing Technologies". The first workshop held in late May was attended by 12 faculty members. The workshop will be repeated in August.

ITS also launched the program with Administrative departments in May. Already, one such session was held with Student Judicial Affairs staff which has served to help identify some specific needs in that area. Other meetings scheduled this summer include Financial Aid and Facilities & Physical Plant staff.

More information regarding the ITS Services Awareness Survey is provided in other areas of this status update.

Objective 8: Utilize and actively promote tools such as the SMSU ITS web site and the Manage Engine Service Desk (helpdesk ticketing, etc.) software to provide "self-service" resources that can be useful in resolving common issues incurred.

As indicated above (see Objective #6), ITS is rebuilding its web site. Among the goals for the web site rebuild is to provide more access to the University community on "self-service" resources. In addition, ITS is examining the potential to make the Manage Engine Service Desk tool a more effective self-service resource base for the University community. Another potential tool under examination is the development of an ITS service catalog that can have links to self-service resources. Finally, SMSU ITS is monitoring an initiative as the MnSCU system level to adopt a new service management tool that could also be utilized by individual institutions. A RFP has been issued by the system for potential products.

As noted above, ITS redesigned its website during the summer of 2014 to be more streamlined and user friendly. ITS staff take the opportunity to attend as many informational sessions as possible (e.g., Parent Panels during Registration Days) to promote ITS web site as an information resource. Also, a link to the ITS ticketing and knowledge management system (Manage Engine Service Desk) which allow campus users to submit a service request or find solutions to issues they are experiencing is in place. However, special attention will be needed to updating the information in the knowledge management system.

While ITS has reviewed some options for an interactive service catalog, beyond the current web site, current plans are to move towards the service catalog feature being rolled out in the new

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service management tool—Cherwell—being adopted by the MnSCU system office and several other individual MnSCU institutions. ITS currently plans to implement the Cherwell tool during the summer of 2016. Cherwell will replace the Manage Engine Service Desk tool.

**Goal 2:** Enhance current services and/or develop new services that support high levels of student information technology literacy.

Objective 1: Roll out the newly developed "Orientation to D2L" short-course for students seeking to enhance their skills with D2L.

The short-course was completed prior to Fall 2013 semester. Plans exist to continually update the course to be consistent with D2L version updates.

Metrics show that the short-course gets frequent use by students. This use included use of the discussion board by students to post questions for ITS staff. Thus, even though D2L Brightspace, has released a more extensive series of video and written tutorials for the product aimed at both faculty and students., ITS will continue efforts at updating the course.

Objective 2: Engage the Academic Technology Committee (Faculty Technology Committee) in a "strategies to enhance student information technology literacy at SMSU" discussion.

The topic was raised at the initial Fall 2013 semester ATC meeting. Discussion at the meeting centered on the need for an "Introduction to Online Education" course modeled after the "Orientation to D2L" course. Initial discussion was held at a Provost's staff meeting regarding the potential scope of such a course. In the interim, at the request of the faculty association, a forum is scheduled on the topic of online education as part of the August Faculty Development Day.

As the Library provides information technology literacy training and includes an Information Literacy Rubric on its website <a href="http://www.smsu.edu/library/?id=6404">http://www.smsu.edu/library/?id=6404</a>, no further action is planned by ITS at this time.

Objective 3: Participate with appropriate departments (e.g., Student Services, Residential Life, Library) to promote the importance of such items as maintaining good data privacy practices and compliance with anti-piracy laws.

No ITS action to date. However, as part of Fall 2013 Orientation, a session on Internet Piracy was held for incoming freshman by the Residential Life program.

Initiatives in this area have still been limited beyond the annual notices provided regarding "Unauthorized Distribution of Copyrighted Materials on the SMSU Network" and Phishing attempts. The importance of these items will be an emphasis in the 2015-16 academic year.

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However, ITS has built a partnership with the Office of Student Judicial Affairs in working with students that are linked to reports of network-based copyright violations.

Objective 4: Partner with appropriate departments (e.g., Student Services, Admissions) to ensure students have a detailed understanding of how to access and fully utilize the technology tools available to them as SMSU students. Such tools include on-campus data storage, printing services, campus networks, Office 365 tools, campus labs, and StarAlert.

ITS continues to participate in such events as Registration Days Parent Panels to share information regarding the scope of ITS services. However, partnerships with those departments that are interacting frequently with incoming and new students are still somewhat ad hoc. Jointly developed comprehensive strategies on how to ensure students know where to access information on critical technology services are still needed.

ITS has worked with the Office of Student Success and Student Services to update materials (i.e., Resource Guide and Student Handbook) that those offices provide to both new and returning students. ITS has also initiated a practice of an annual introduction of ITS services for both new and returning students to facilitate their technology services onboarding for the new school year.

- **Goal 3:** Promote the use of tools and practices that can lead to an accessible technology environment for persons with disabilities at SMSU pursuant to the FY 2013 Technology Accessibility Task Force's recommendations.
- Objective 1: Develop a University wide awareness campaign that highlights the importance of technology accessibility and highlights key practices that address common accessibility issues.

ITS staff have made a concerted effort to educate the University community regarding technology accessibility needs. Among the specific activities included a brief presentation regarding the Technology Accessibility Task Force's recommendations at the Summer 2013 Staff Development Day as well as a Faculty Assembly. A brief overview was also provided at a 2013-14 D2L Users Group meeting. In addition, in conjunction with the Student Technology Fee Committee/Student Senate, ITS is purchasing a University-wide license for Adobe Creative Cloud (ACC) services beginning August 2014. Among the benefits of this service will widely available tools such as Adobe Acrobat to support the development of accessible documents by faculty and staff. Awareness sessions regarding the pending service were held during the Summer 2014 Staff Development Day. Future focused workshops on specific tools within the ACC are planned for the future as the service gets deployed.

Efforts at promoting technology accessibility awareness continued in the 2014-15 academic year and plans exist to continue efforts in the 2015-16 academic year. Among specific activities included workshops on ACC tools as they relate to accessibility, support for individual faculty's

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efforts to caption videos used in for instruction, a review of video captioning needs with the Academic Technology Committee, development of a project plan and budget for a pilot video captioning service, and the develop of a planned session regarding the video captioning initiative for the August 2015 faculty professional development day.

Beyond the video captioning initiative, significant investment remains needed in the area of promoting and supporting technology accessibility. Such efforts will continue to be an area of emphasis for ITS in future years.

Objective 2: Develop specific presentations outlining best practices and techniques for creating accessible technology-enabled programs and resources. Make the presentations available in multiple mediums including live and recorded sessions.

Workshops on the use of Adobe Acrobat and creating accessible forms were held for faculty and staff during the 2013-14 academic year. The presentations were recorded using Adobe Connect—a web conferencing tool that enables session archiving. As noted above, workshops on the tools available in Adobe Creative Cloud including Adobe Acrobat are planned for the future.

As noted in Objective 1, several specific presentations were held and are planned for the future.

- **Goal 4:** Promote technological tools as a means for enhancing sustainability practices on campus.
- Objective 1: Develop an awareness campaign focused on informing the University community of best practices for the use of technology to improve sustainability efforts.

While a specific awareness campaign to promote sustainability practices has not yet been started, several initiatives have been undertaken which will help establish the framework for such a campaign. Previous initiatives include the Student Government requested Student Print Quota which included moving student use printers to a managed print service from Marco. Implemented in 2011, the Quota has served to significantly reduce printing costs. In addition, many administrative and academic departments have transitioned their "printer only" devices to Marco's managed print services. Current initiatives include the University-wide Adobe Creative Cloud license and an investigation underway to move all University printing systems to Marco's managed print service.

As indicated above, ITS has purchased the Adobe Creative Cloud service for the University's managed computer workstations. Further initiative is needed to link the product's value with sustainability among the University community.

In regards to printing, there is a gradual migration to the new Marco managed print services (MPS) in progress. It is anticipated that the pace of the migration will escalate during the 2015-

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16 academic year. As part of the migration to University-wide MPS, a new printing procedure is in development and expected circulation is anticipated in the Fall. The procedure would be supported by new print management tools.

ITS continues to explore other approaches to supporting sustainability within its internal operational practices. However, IT operations and sustainability are often in conflict. For example, information security needs (e.g., the need for off hours security patching of users' desktops) are in conflict with sustainability goals as it requires computer workstations to be powered on via automated tools.

Strategic Direction #2 -- A reliable, accessible, secure and advanced technology infrastructure. On an ongoing basis, ensure that the information technology based tools deployed for the SMSU community's use meet these criteria to the fullest extent possible.

- **Goal 1:** Implement a process that ensures SMSU's core technology services infrastructure, including underlying systems and end user tools and services, can be routinely evaluated in light of the University community's service needs.
- Objective 1: In conjunction with the development of a SMSU ITS Services Catalog (Strategic Direction 3, Goal 1, Objective 2), develop a Core Applications & Systems Inventory that clearly identifies the relationship of applications & systems and service solutions in use to services supported.

Formal development of the Inventory has not yet been initiated.

Through the use of a tool called Kablink Vibe, ITS has developed a detailed internal inventory of systems in use and the various dependencies among systems. Included in this documentation are notations regarding which applications are supported.

Plans exist to develop an updated applications inventory itself based on the model developed by the MnSCU CIO Community to document applications in use across the system during 2012.

Objective 2: Develop lifecycle review plans for all applications, systems, and service solutions in use to ensure that future investments to be made meet the needs of the University community.

Formal development of lifecycle review plans has not yet been initiated.

The internal inventory of systems referenced above will serve as a good starting point for documenting service solutions and applications used for those services. At that point, a lifecycle review process can be initiated.

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Objective 3: Develop an assessment instrument to establish benchmark adoption rates for various technology tools across the institution by faculty and staff. In addition, implement a process to continually assess adoption rates and to determine reasons for high or low adoption rates and whether or not further action is warranted from SMSU ITS to stimulate use and/or whether support for certain tools should be phased out.

A SMSU ITS Services Awareness Survey is in development that among other goals will seek to identify adoption rates for available services among faculty and staff. An initial attempt at determining reasons for various service adoption rates may also be incorporated.

The ITS Services Awareness Survey was conducted during the 2014-15 academic year. Among the primary objectives of the survey was to assess adoption rates for different technology tools and services among faculty & staff. Reasons for high or low adoption rates were also assessed. While a detailed analysis of results is ongoing, survey results have been useful in planning awareness and training activities for faculty and staff.

Objective 4: Develop a process to identify service gaps between SMSU ITS services and University community needs. Such a process could include survey instruments, existing technology committees, departmental consultations and involvement in external higher education technology communities.

In conceptual stage. Will likely need to involve multiple strategies as noted above.

To date, the most effective process at determining service gaps has proven to be the use of existing technology committees and the departmental consultation meetings. Existing committees include the University Technology Advisory Committee, the Academic (faculty) Technology Committee and the Student Technology Fee Committee.

As the University is a member of Educause, ITS works diligently to keep abreast of important reports (e.g., Annual Top Ten Issues List) initiatives and the literature. ITS also has been aggressive in being an active member of the MnSCU ITS community in order to stay aware of statewide trends and services.

Objective 5: Develop a framework that is inclusive of the University community for assessing (and potentially choosing) new approaches and innovations to delivering needed services (either current or new) to the University community.

While a formal framework has not been adopted, a model for such a framework could be the Digital Signage of the Future Task Force approach. This task force was formed among interested constituencies to review requirements and options for Digital Signage at the University. Attention will be needed to providing opportunities for all potential interested parties in such task forces.

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Based upon the existing technology committees structure and time demands on all faculty and staff, it is evident that the Task Force approach in conjunction with the committees may serve as the best framework SMSU can adopt for assessing and recommending new approaches and innovations to delivering services. Task forces will be formed on an as needed basis when issues are presented that are beyond the scope of a particular committee. Participation in task forces will be sought from all impacted constituencies. In addition to the Digital Signage of the Future Task Force, a similar approach was successful with the Technology Accessibility Task Force that was formed and developed recommendations in the 2012-13 academic year. Similarly, ITS engaged the Academic Technology Committee closely in developing a services plan to support video captioning.

- Goal 2: Implement internal departmental procedures for services development, deployment, maintenance & updates, upgrades & enhancements, and expansions that emphasize providing reliable and consistent production services to the University community.
- Objective 1: Develop standard templates and approaches that support sound change management and enable peer review of plans and steps.

During FY 14, ITS worked to develop 1) a "systems documentation" template and 2) a "quick project vetting template". In addition, an internal ticketing system pilot was implemented in support of web services and applications development projects. To further support change management and peer review of plans and steps, weekly 30-45 minute web conference meetings among systems administrators and other ITS staff were implemented in order to collectively update each other and seek feedback on projects and initiatives. Departmental reorganization efforts described elsewhere in this status report are also focused on enhancing change management and peer review processes.

ITS continues to pursue efforts that support sound change management and peer review of plans and steps. The weekly web conference practice continues as do the systems documentation efforts. The quick project vetting template has generally been replaced by the weekly conference calls and routine "team" meetings that resulted from an internal ITS reorganization into teams.

Objective 2: As funding permits, develop test or development environments for SMSU ITS managed server-based services (e.g., University web site, Mustang Card) deemed mission critical by the University community.

While test/development environments are limited, an important test environment was developed for the StarID and Active Directory project completed in FY 14. Plans exist to develop a development/test environment for the University's web services infrastructure during FY 15.

ITS was able to develop a test environment for the University's web services infrastructure during the past year. Consideration is now being given to development of a test environment

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for SHOT's Adobe Connect service. Additional considerations for other test environments will be conducted on an ongoing basis.

Objective 3: Develop tools that can be used to track critical information on production services such as software license renewal dates, technical specifications, vendor support contact information, purchase date of hardware utilized, service history (e.g., date of software updates), and projected replacement dates.

Development of several databases are in progress to track critical information. Priority databases include software licenses and "Cloud Service" contracts. It is anticipated that these databases will be part of a large resource collection that will provide significant support for University processes.

Templates have been developed for "Cloud Service" or Software as a Service (SaaS) contracts and software licenses in use at SMSU. These templates are being populated on an ongoing basis.

Objective 4: Where viable, expand the use of automated approaches to deploying routine updates and patches to systems that support critical services.

Significant progress has been made in the deployment of automated approaches for routine updates and third-party patches. A key component of this progress has been the full implementation of Microsoft's System Center Configuration Manager (SCCM) product.

ITS has generally implemented automated approaches to all updating and patching processes across the campus.

**Goal 3:** Continue efforts to enhance the SMSU Data Center's operations and reliability.

Objective 1: Update plans for enhancing physical infrastructure such as electrical, air conditioning and security systems that can be implemented in phases as funding permits.

Planning for electrical system upgrade for Data Center is ongoing. Electrical system upgrade will need to occur in phases and is pending available funding from ITS operating funds and other sources where possible. Additional air conditioning system upgrades are currently less of a priority. Physical security upgrades for Data Center may become a need pending future systemwide information security assessments.

Funding availability has limited additional major electrical and air conditioning system upgrades. Plans are being made for enhancing universal power supply components in the Data Center during the summer of FY 15. Also, as part of a space reallocation process involving the Radio/TV program, Electronic Media Services and ITS storage, lockable doors have replaced the current

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temporary wall between the Data Center and the current ITS storage area. The storage area will likely become the home for Electronic Media Services staff.

Objective 2: Continue migration of physical server environment to the virtual server environment.

Significant new virtual server capacity was added during FY 14. In addition, more capacity was purchased to support the Active Directory migration/StarID and Exchange upgrade projects. This capacity will be transitioned into core Data Center operations during FY 15.

The Data Center's virtual server capacity, and supporting storage capacity, been expanded greatly. The use of virtual servers has now become the defacto standard for applications and services hosted within the Data Center.

Objective 3: Enhance systems that support key services such as data back-up and data storage. Planning and implementation will consider a mix of in-house and off-site systems.

A new back-up appliance (Data Protection Manager) was purchased and installed during FY 14. Most servers are being backed up with the new appliance. Optimization efforts are in progress. Most servers are now backing-up to the system.

The NetApp storage system that was initially implemented in FY 13 was expanded in FY 14. Additional capacity expansion plans are in progress.

Efforts at optimizing Data Protection Manager (DPM) continued throughout FY 15. In addition, testing of a different back-up service geared towards support for virtual servers was conducted but not yet chosen for deployment. The Infrastructure Services Group will be meeting with additional vendors in the upcoming months as part of plans to develop a more comprehensive back-up services strategy.

A review of off-site back up services is also underway in conjunction with other MnSCU institutions.

Efforts to expand the NetApp storage system are underway at the end of FY 15. Capacity has been ordered and has been installed. Final system configuration is in progress.

- Goal 4: Develop strategies and funding mechanisms to ensure that SMSU campus network infrastructure, including wireless capacity, is a "state-of-art" system that meets the needs of the SMSU community and campus guests within the security policies, procedures and guidelines adopted by MnSCU.
- Objective 1: Complete a wireless site survey to identify gaps in current wireless capacity vis-à-vis anticipated growth in demand for wireless network bandwidth on campus in the next 3-5 years.

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A wireless site survey was conducted in Summer 2013.

See above.

Objective 2: Develop a plan for wired and wireless network infrastructure upgrades across campus that will be necessary over the next 3-5 years.

Plans for various aspects of campus network upgrades are in place. Funding for many of these projects have been secured through a combination of resources. These resources include Student Technology Fee, Housing and ITS funds. Projects in progress include 1) "Core Switch Infrastructure" upgrades, 2) Residential Hall switch upgrades, 3) Non-Residential Hall wireless access point upgrades, and 4) the Network Access Control system upgrade.

The Core Switch Infrastructure project is nearing completion as of the end of FY 15. Equipment to support the Residential Hall switch upgrades and the Non-Residential Hall wireless access points upgrades has been ordered. The later project will need to be completed in phases pending funding availability. The Network Access Control system upgrade is planned for implementation in FY 16.

In addition to the above projects, a new "enrollment" system for onboarding network users was implemented during the Summer of FY 14. The new system has enhanced the process for the University community and guests to access the campus network with their own devices.

Objective 3: Develop funding mechanisms to support ongoing network enhancements in partnership with key constituencies on campus including Housing and the Student Senate.

As stated above under Objective 2, funding has been secured to support various network enhancement projects.

See above.

Objective 4: Continue investigation and deployment of tools that enable robust network access at appropriate security levels to SMSU's network for members of the University community and guests.

Significant research into network access tools was conducted during FY 14. As a result, several projects are underway to transition network access services to new systems during FY 15 that will enhance the experience for all University constituencies and University guests.

As noted above, a new "enrollment" system for onboarding network users was implemented during the Summer of FY 14. The new system has enhanced the process for the University community and guests to access the campus network with their own devices.

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Goal 5: Implement MnSCU StarID to be utilized as a single identifier for enabling University

community access to most services hosted by SMSU.

Objective 1: Engage an external consultant to conduct an assessment of SMSU's active directory

infrastructure.

An assessment of SMSU's Active Directory infrastructure in light of needs for the migration to the StarID system was completed by NowMicro in Summer 2013.

See above.

Objective 2: Implement necessary changes to the active directory infrastructure which support an effective StarID implementation and enhance other technology services.

ITS worked with NowMicro and the MnSCU Enterprise Access Management Team over the course of FY 14 to develop project plans for the active directory infrastructure changes and StarID implementation. The projects were conducted in parallel in May. ITS Staff are currently involved in working through the issues associated with a project of this scope to ensure smooth campus IT operations.

ITS staff continued to sort through the conversion issues experienced last summer to ensure a smooth beginning of the 2014-15 academic year. In large part, ITS considers this effort completed.

Objective 3: Work with the MnSCU StarID deployment team to successfully implement StarID as the primary identifier for campus hosted applications and services.

As noted above under Objective 2, StarID has been implemented as the primary identifier for campus hosted applications and services. Efforts to optimize StarID as it relates to such items as account management and third-party services are underway.

While most activities related to this project were completed during the Summer of 2014, efforts to move more services to use of StarID, such as SHOT's Adobe Connect service, continued during the 2014-15 academic year. It is anticipated that integration of other 3<sup>rd</sup> party services will continue on an ongoing basis.

Goal 6: Develop a comprehensive information security plan that takes into account such factors as: a) MnSCU information security policies, procedures and guidelines; b) FERPA & HIPAA regulations; c) Payment Card Industry (PCI) requirements and d) results of the MnSCU Information Security Assessment Program conducted in 2007-2008 and the 2013 MnSCU Vulnerability Management Initiative.

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Development of the comprehensive plan is in a conceptual stage. In the interim, compliance efforts with the numerous federal, state and MnSCU system requirements, policies, procedures and guidelines are ongoing. Significant efforts were conducted during FY 14 to comply with requirements from the MnSCU Vulnerability Management Initiative.

While a comprehensive plan is still in conceptual stage, several initiatives are underway in this space. These initiatives include: 1) a review of user access rights to both the CAP server and the R Drive to ensure that access rights are limited to authorized persons; 2) a systems vulnerability scanning initiative per the directive of the MnSCU Board of Trustees; 3) an emphasis on patch management; 4) development of a draft glossary and best practices document pertaining to information security; 5) participation in a systemwide CAP server audit; 6) discussion of security best practices as part of ongoing departmental consulting sessions; 7) Payment Card Industry compliance requirements; and 8) an emphasis on securing a legal review of any contract or terms of service associated with any technology-based service.

In addition, several systemwide initiatives are underway which will further impact information security planning. These include: 1) institution level information security audits; 2) adoption of a new information security framework – ISO 27002; and 3) a two-day information security retreat in October

**Goal 7:** Formalize Disaster Recovery & Business Continuity processes

Objective 1: Initiate a series of discussions among SMSU ITS staff to identify potential scenarios (e.g., weather events, pandemic) that could negatively impact ITS operations and current gaps in SMSU ITS's ability to maintain services.

Discussions contemplated have not been formally initiated. However, steps previously taken (i.e., shared generator project) have proven to limit impact on ITS operations of weather events that impact campus electrical outages and even planned outages.

ITS continues to contemplate the potential for development of off-site back-up and storage services beyond the current off-site storage of back-up tapes on a weekly basis. The move to Cloud-based services helps lessen the impact of potential disaster scenarios but on-site services are likely to remain a vital part of SMSU ITS operations for a significant time in the future.

One important development is the joint development of a systemwide RFP for off-site back-up services at the file and workstation level. SMSU ITS staff were involved in some initial discovery efforts with other University staff and have worked with System Office staff on RFP preparation.

Objective 2: As a result of the scenario Identification and subsequent gap analysis, develop specific action plans to mitigate gaps in ability to recover from disasters and/or maintain business continuity.

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Pending Objective 1.

See comments under Objective 1.

Strategic Direction #3 -- A clearly understood, customer-service oriented and agile information technology services organization.

SMSU ITS will continue to pursue strategies and steps that are customer-service focused, ensure responsiveness to University needs, and successful completion of projects. Special emphasis will be given to making SMSU ITS more transparent to the University community.

**Goal 1:** Implement strategies that enhance the transparency and visibility of SMSU ITS organization and services.

Objective 1: Develop and make available documentation, including organization charts and workflow diagrams, which guide the University community on steps and processes to follow for such items as using specific services, getting the quickest support on specific services and how to initiate project requests.

Some progress has been made toward this objective. Examples include posting of the Strategic Plan and the ITS organizational chart on the ITS web site. A new ITS organizational structure was also implemented July 2014 to assist with transparency. The ITS web site is also undergoing a major restructuring to ease access to information regarding ITS services. Efforts conducted over the years to publicize the Technology Resource Center as the "front door" to ITS has largely been successful. Items such as workflow diagrams and project request processes are still in conceptual stages.

ITS completed an overhaul of its website during the Summer of 2014 to make it more streamlined and user friendly. Items such as workflow diagrams and formalized project request processes continue to be in a conceptual stage but it has not been a priority given workload for the department. The potential for the pending systemwide IT service management tool to support such items is being reviewed.

Objective 2: Develop a SMSU ITS Services Catalog.

In conceptual stage. An ITS Services Awareness Survey is in development as a steppingstone to a full catalog.

Little progress has been made with an actual Services Catalog development. However, the Services Awareness Survey was issued during the 2014-15 academic year. The survey was structured in a way to provide information on basic ITS services. Some thought is being given to the creation of "mini Services Catalogs" that would in essence be Use Cases documents involving certain types of technology services.

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Objective 3: Develop, publicize and conduct SMSU ITS services awareness programs for interested constituencies. Consider utilizing the "speed dating" model utilized for Faculty Development Day in August 2012. Potentially incorporate into the Departmental Consulting Program (See Strategic Direction 4, Goal 1, Objective 1).

# In conceptual stage.

Progress in this area has been accomplished through the Departmental Consulting sessions initiated during the 2014-15 academic year and some focused workshops of specific services. Examples of the later were the two sessions held during the summer months of 2015 on "Distributed Conferencing Technologies" and sessions held on Adobe Creative Cloud tools during the 2014-15 academic year.

Objective 4: Continue to use the SMSU ITS web site, and additional tools highlighted under Strategic Direction 1 Goals, to promote and publicize ITS services, policies and operational procedures.

ITS has been more aggressive about using its web site as a news site for ITS services/updates. Also, a twitter account has been created for posting information.

Same.

Objective 5: Develop and publicize an SMSU ITS Help Desk "priorities statement".

#### In conceptual stage.

As of this time, the decision has been made to not pursue development of a Help Desk "priorities statement". It was determined that such a statement would be perceived by clients negatively.

Objective 6: Investigate the feasibility of implementing tools (e.g., dashboards) that can be utilized to provide clients updates on the status of SMSU ITS projects and initiatives.

#### In conceptual stage.

Little progress has been made in this area. The potential for the Cherwell ITSM product to support such tools is being investigated. (See Strategic Direction 1, Goal 1, Objective 8).

**Goal 2:** Enhance agility of SMSU ITS to meet continuously changing client needs and enhance customer service for the SMSU community.

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Objective 1: Develop survey instruments to assess current and ongoing levels of customer satisfaction with SMSU ITS services. Levels of customer satisfaction identified shall include satisfaction with current services and identification of any gaps among services provided and services desired.

As indicated above, an "ITS Services Awareness Survey" is in development for a planned Fall 2014 release. A further objective of this survey is to gauge levels of customer satisfaction. Initial focus will be on faculty/staff. A later survey for students is also planned. A review of other tools that can be used for longer term satisfaction survey instruments such as the Tech Qual survey tool or potential MnSCU systemwide products will also be conducted.

The "ITS Services Awareness Survey" was completed and has served to provide some feedback regarding the satisfaction with various ITS services among faculty/staff. As of this time, a specific survey to measure student satisfaction levels has not been developed. Discussion was held with the University Technology Advisory Committee regarding the types of questions that would be valuable to ask SMSU students in such a survey.

Also, as of the timing of this update, it is anticipated that the University's participation in the HLC's Assessment Academy and the emphasis that will be given to assessment across the University will serve to drive future assessment efforts.

Objective 2: Review results of assessments and implement initial steps (e.g. analysis of new service options, professional development plans for staff) focused on addressing any areas of concerns that are highlighted.

Pending completion of Objective 1 above.

Based upon initial review of the "ITS Services Awareness Survey", ITS is emphasizing the need to focus on providing training for faculty/staff on core IT tools including such tools as desktop software and conferencing services.

Objective 3: Research the practicality and viability of using "service level agreements" to support specific services in place for individual constituencies and departments.

Under review. Examples that could be followed are SLAs implemented by SHOT for networking services and MSU, Mankato's Image Now services SLA.

At this time, SMSU ITS has not pursued the development of a specific SLA with any individual constituency. There has not been a high demand among campus constituencies for such a document. In addition, departmental workload has limited the time to pursue such agreements.

Objective 4: Investigate the value of implementing extended hours for SMSU ITS support beyond current levels in light of budgetary restrictions.

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No action at this time. Limited demand to date.

No action planned. Rather current focus is determining how to keep current hours given budgetary restrictions and minimum wage increase that benefits student workers.

Objective 5: Research strategies and implement activities (e.g., routine discussion sessions with full-time staff, specific training programs) that improve the technology and customer services skills of SMSU ITS student workers.

The Technology Resource Center Manager holds routine meetings with student workers to update them on support techniques for new services (e.g., Office365 Pro Plus) and changes to new services. In addition, specific trainings on new tools/techniques are conducted by other staff (e.g., workstation deployment in SCCM environment). Plans exist to enhance frequency of sessions between IT student workers and full-time staff to focus on key issues resolution.

Several new approaches to enhancing student workers' technology and customer service skills were implemented this past year. Among specific steps include: a) the use of D2L to provide access to steps/procedures involved with common support needs and b) the use of SCCM to increase student workers' abilities to provide effective remote computer workstation support.

Objective 6: Evaluate the value of adopting widespread IT service management strategies (e.g., ITIL) within SMSU ITS.

ITS participated in a MnSCU wide survey of institutional IT department service management requirements. The survey results were used to develop a MnSCU system RFP for qualified Information Technology Services Management (ITSM) products for adoption by MnSCU ITS and individual institutions if desired. Such a potential systemwide service will support shared services among institutions.

Adoption of "service management" strategies continues to receive consideration. Indeed, an ITS staff member has served on the systemwide "Tiger Team" charged with developing an implementation plan for a systemwide ITSM product (Cherwell) and underwent several days of ITIL training. SMSU ITS plans to adopt the Cherwell product in the next 12 months and will give consideration to expanding the number of staff which receive the ITIL training.

Objective 7: Continue existing internal departmental initiative to fully adopt Kablink as a multipurpose tool to support such key operations needs as documentation management, project management, and change management.

Kablink has been adopted as the repository for internal documentation management. Its use for project management and change management is evolving. To date, the service has been used to support a limited number of projects.

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Use of Kablink has expanded for documentation management. Use for project management and change management continues to evolve. However, the documentation has served as a good tool for evaluating the impact of changes contemplated to currently operational systems given the scope of information being included in documentation. Also, while not being considered for initial implementation, the Cherwell product has modules for both project management and change management.

Objective 8: Implement a process to annually review SMSU ITS staff position descriptions and update the position descriptions to the extent possible to help support addressing unmet needs.

The process is in place in conjunction with the Annual Performance Review process. In FY 2014, three position descriptions were rewritten. One new position description was written pursuant to a retirement. Several other positions have been identified as targets for revision in FY 15. Two PDs have been identified as priorities.

Rewrites of the PDs indicated remains to be completed. However, a position vacancy has led to the development of a new position—a Database Administrator—that more effectively meets the University's service needs.

# Strategic Direction #4 -- Support for tools and processes that enable increased efficiency and innovation across all areas of the University.

As higher education faces the dual challenges of increasing competition and increased demands for accountability and efficiency, the SMSU community will need access to resources and expertise that support individual and collective efforts that make the University more effective in meeting strategic priorities.

- **Goal 1**: Expand scope of existing feedback channels to ensure that as wide as a net is cast to identify the University community's service needs and business process enhancement opportunities.
- Objective 1: Develop a Departmental Consulting program that includes routine meetings with academic and administrative departments. These meetings would be focused on identifying 1) training & support needs for existing services, 2) satisfaction with current SMSU ITS services, 3) currently available solutions that can meet needs, and 4) gaps between desired and existing services.

Limited progress has been made with the Departmental Consulting program to date. Program initiation is a focus for FY 15. However, it is important to note that an example of this program was initiated with the Administrative Assistants group in FY 14. ITS staff attended several Administrative Assistants group meetings during the year. This participation led to the development of some targeted training activities by ITS staff on using Microsoft Excel software

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to work with and interpret student data available from Data Management. Also, a specialized smartboard training was provided for the English Department. It is anticipated that the ITS Services Awareness Survey previously identified will be a useful instrument to support the program.

ITS launched the Departmental Consulting program during the 2014-15 academic year. Sessions were held with several academic departments. In addition, the program was expanded to support administrative service departments during the summer months. These consulting sessions began in June with several more scheduled for July. It is the intent of ITS to continue these sessions on an ongoing basis.

Objective 2: Promote the availability of SMSU ITS staff to participate in constituent group meetings on campus technology services and needs.

As indicated above, some progress in this area has been made. However, further promotion is needed through available channels.

This objective has been met through the Consulting program.

**Goal 2:** Develop and implement strategies that enhance the SMSU community's ability to fully utilize mobile devices in teaching, learning, work and recreational activities.

Objective 1: Develop a "Mobility Lab" that supports faculty desiring access to the tools that can support integrating mobile devices into teaching and learning.

The Mobility Lab was implemented during FY 2014. It is located in IL 218. The Lab is fitted with an iPad cart, 15 iPads, an Apple TV system and a projector/smartboard. ITS staff worked with faculty to acquire an initial set of "desired apps". Heaviest use of the Lab has been by the Education faculty and their "pre-service" students. The Lab was also used to support a training session of regional K-12 and post-secondary educators in June 2014.

Use of the Mobility Lab expanded during the 2014-15 academic year. Consideration for both an expansion and/or equipment update will be given during the 2015-16 academic year.

Objective 2: Perform an assessment of existing capacity, current plans and future needs for the University's wireless network infrastructure to ensure that the University community's needs for wireless capacity are met for the forseeable future (See Strategic Direction 2, Goal 4). Options for future infrastructure enhancements that should be considered include partnerships with wireless network service providers.

As indicated under the Strategic Direction 2, Goal 4 status notes, significant work has happened in regards to the University's wireless network infrastructure. These activities have included a wireless site survey and the securing of funding for numerous network projects.

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See status reports for Strategic Direction 2, Goal 4.

Objective 3: Initiate discussions with appropriate service units (e.g., Business Services, Web Services) to identify service strategies, policies and procedures that position the University to be a "mobile device friendly" institution.

ITS continues to support Web Services (Communications & Marketing) in its efforts to make the SMSU web site mobile friendly. Limited development of unique SMSU web apps has occurred to date—in part due to an unfilled vacancy in Web Services for much of FY 14 (a new Web Designer started in April). Several external initiatives in this area are being monitored including 1) an initiative by the SMSU Computer Science Department to support a mobile app development service and 2) MnSCU efforts to develop e-services mobile apps.

ITS continues a broad based approach to support mobility across the institution. This approach includes efforts to develop a "mobility strategy" that encompasses a variety of elements.

- **Goal 3:** Build the capacity to effectively support the ability to provide systems and tools which can lead to enhanced business processes across the University.
- Objective 1: Research methods utilized by peer institution ITS departments to provide a framework for building systems and tools (e.g., e-forms, automated workflows, collaboration tools, web applications) that support enhanced business processes at their institutions.

#### Formal research of framework options not initiated to date.

ITS is aggressively pursuing a framework that involves a mix of commercial services and in-house development of tools as appropriate. For example, several initiatives were completed or nearly completed during the 2014-15 year that supported individual departments in the adoption of commercially available products to support their internal operations. A new tool was deployed for supporting student election processes that was greatly accepted. A key piece of a framework is an approach for supporting e-forms and automated workflows. Some tools are in use today to meet those needs such as SouthwestNet and Image Now and some of these will likely need to have continued utilization. However, research into a new comprehensive approach is ongoing.

Objective 2: Determine an optimal technical direction for SMSU to pursue as its framework technology(s) for supporting development of business process enhancement tools that takes into account factors unique to SMSU such as tools and services already in use (e.g., ISRS, Image Now).

Pending Objective #1

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As noted above, ITS is supporting a future that has a mix of commercially developed and locally developed tools.

Objective 3: Identify new staffing needs and/or training needs for existing staff to address existing gaps between SMSU ITS staff capabilities and the University's business process enhancement needs.

Pending other Goals/Objectives. However, previously identified staffing needs generally continue to be valid. Staff training continues per internally determined requirements to support effective ITS operations.

Special emphasis is being given by ITS to shoring up its skills base in the area of database administration and applications development. However, due to a staff departure and a failed search for an Applications Developer during the 2014-15 academic year, progress in this area has been slowed. Following the failed search, a different strategy was developed that involved the search for a Database Administrator and the use of student workers to support applications development.

Objective 4: Contingent upon completion of Objectives 2 and 3, develop a plan and budget for securing the capacity (e.g., hardware, software, staffing, skills, vendor partnerships) needed.

Pending completion of above objectives.

In progress per Objectives 2 & 3.

Objective 5: Begin implementation of capacity development.

Pending completion of above objectives.

Same

Goal 4: Investigate the expanded use of vendor provided "cloud based" services or emerging "MnSCU wide shared services" for University community utilization.

Objective 1: Complete migration of e-mail, calendaring, collaboration and storage services for students from the Microsoft Live@Edu platform to Office 365.

Completed in early FY 2014. Service has since been expanded to include the Office 365 ProPlus service which provides currently enrolled students access to free Microsoft Office products.

During the latter part of FY 2014 and FY 2015, the MnSCU CIO community supported the initiation of planning and development of a system level "shared service" involving Office 365. It

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is the intent of ITS to migrate current Office 365 services to the new shared service when it becomes fully operational in FY 2016/2017.

Objective 2: Develop a recommendation, pursuant to Attorney General's Office action, regarding transitioning faculty and staff to Office 365 as soon as summer 2014 for a similar scope of services.

During FY 14, the MnSCU Office of General Counsel authorized use of Office 365 e-mail and calendaring services for faculty and staff provided certain provisions were adhered to (e.g., legal hold capabilities). However, ITS determined to upgrade current SMSU ITS hosted e-mail & calendaring services in May rather than initiate Office 365 e-mail & calendaring services at this time. In the meantime, ITS will monitor initial deployments among other MnSCU institutions and MnSCU system office plans to implement Office 365 e-mail & calendaring services as part of future planning. Research has shown that steps taken by SMSU ITS in May would be a required precursor to an Office 365 deployment for faculty and staff.

As indicated under Objective 1, SMSU ITS is monitoring the developments with the system level "shared service" approach to Office 365. It is the intent to migrate faculty and staff to the new shared service when it becomes fully operational.

Objective 3: Develop a recommendation on whether or not to pursue "software as a service" options available for students, faculty and staff made available as part of expanded Office 365 options.

As indicated above, SMSU ITS has made the free Office 365 Pro Plus program for students in the past year. SMSU ITS is currently evaluating whether or not the University should purchase Office 365 licenses for faculty and staff for software products such as Microsoft Office independent of a decision to use Office 365 for faculty/staff e-mail & calendaring services.

See above.

Objective 4: Explore options for unique cloud based services that departments can utilize modeled on the "off-site back-up" solution used by Communications & Marketing for the "Photo Server".

ITS has supported several departments in their adoption of cloud-based services during the past year. This process has included the start of an initiative to conduct legal reviews of proposed contracts or terms of service agreements in order to ensure that Minnesota statutes, MnSCU policies and FERPA rules and regulations are addressed. This process includes legal counsel from the Minnesota Attorney General's Office or the MnSCU Office of General Counsel.

As noted under Goal 3, Objective 1, ITS continues to support efforts to utilize cloud-based services by departments to meet their unique needs.

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Objective 5: Continue full participation in "MnSCU Shared Services" discussion underway among the MnSCU ITS community.

Until it was sunset in the middle of FY 14, the CIO was a full participant in the MnSCU ITS Shared Services Delivery Strategy Workgroup. Participation in individual shared services conversations continues including initiatives with systemwide focus (e.g., service management platforms) or groups of institutions.

SMSU ITS has been actively involved in shared services discussions. The CIO is a member of a new Advisory Board for the System CIO as a representative of 4 year institutions. In addition, the Support Services Manager has been part of a "tiger team" involved in the planning and implementation of the Cherwell ITSM tool. In addition, ITS staff have participated in such processes as RFP development for various systemwide services.

Goal 5:

In conjunction with the Departmental Consulting Program (Strategic Direction 4, Goal 1, Objective 1), conduct routine evaluations of core business processes used across the University to identify areas for innovation & efficiency, including campus wide collaborations. Examples of recent initiatives include the common Multi-Functional Device program and the expansion of a student worker time clock management solution.

Generally in conceptual stage. However, opportunities that arise (e.g., Marco Managed Print Services) are evaluated and pursued if deemed worth pursuing by multiple departments.

The departmental consulting programs have assisted with evaluations of core business processes and the identification of new innovations and collaborations. In addition, in collaboration with the CFO, a gradual implementation of Marco's new Managed Print Services contract is in progress.

Goal 6:

In conjunction with Web Services, investigate the feasibility and value of implementing a robust single sign on Web Portal as core platform for university-wide e-tools and e-processes.

Objective 1: Assess the marketplace of web portal solutions commonly in use across higher education.

Not initiated. Currently continue to use homegrown SouthwestNet as a limited portal.

While a web portal remains in consideration, a current collective focus among ITS and Web Services in an investigation of commercially available content management services (CMS) tools that would replace the homegrown tool currently in place at SMSU. Web portal capabilities for each of the tools being reviewed is part of the analysis.

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Objective 2: Identify staffing and other technical expertise needed to effectively implement and maintain a robust web portal.

Per Objective 1 above--not initiated.

Staffing and technical expertise requirements are part of the review of CMS tools underway.

Goal 7: Develop a Business Intelligence (BI) test environment that can be used to enhance access for administrators, faculty and staff to actionable information to support decision-making processes.

Objective 1: Develop the technical infrastructure that can be used to support BI testing.

Discussions continue among staff on infrastructure considerations that could enhance readily available access to information that supports decision-making processes. Such a new infrastructure would build upon current systems in place such as ISRS and the "super tables" developed by Data Management/IR staff. In addition, evaluations of such tools as the Blackboard BI service implemented by MSU, Moorhead and internally developed systems in place at St. Cloud State and Winona State continues.

Efforts in this area have followed two tracks in FY 2015. First, as indicated above, a Database Administrator position was created and a search was underway as of the end of FY 2015 (Note: the position was filled following the search process in August 2015). Second, the Director of Institutional Research and Reporting Services is a member of MnSCU Tiger Team focused on developing recommendations for systemwide initiatives in the area of BI.

Objective 2: Provide training for key SMSU ITS staff on such concepts as data warehouse development, database administration and reporting tools and services.

During FY 14, ITS data management staff attended trainings on data warehouse development, reporting tools and services and SQL programming. Plans for database administration skills training are in progress.

As indicated above, the hiring of a Database Administrator will greatly increase ITS staff skillsets in this area.

**Goal 8:** Continue to leverage the University's membership in SHOT to deploy communications tools that can enhance instruction and productivity.

Faculty and staff continue to increase their use of SHOT's web conferencing service—Adobe Connect. Use of the joint MnSCU/SHOT online media management tool—Kaltura is also

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growing. The Jabber desktop video service has had some limited adoption. Another service in pilot stage—Acano Video Meeting Rooms—is also getting some use.

Growth in usage of SHOT services continues. A special emphasis on awareness and training sessions on these tools is in progress.