

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 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.

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 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.
- 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.
- 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.
- 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.
- Objective 4: Investigate the use of social media and/or collaboration tools to enhance the value of the User Groups contemplated (see Objective #2).
- Objective 5: Initiate routine “Tech Tips” sessions for faculty and staff regarding select technologies in broad use (or viable for broader use) across campus.
- 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.
- 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.
- 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.
- 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.
- Objective 2: Engage the Academic Technology Committee (Faculty Technology Committee) in a “strategies to enhance student information technology literacy at SMSU” discussion.
- 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.

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.

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.

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.

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.

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.

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.

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.

- 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
- 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.
- 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.
- 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.
- 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.
- Objective 4: Where viable, expand the use of automated approaches to deploying routine updates and patches to systems that support critical services.
- 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.
- Objective 2: Continue migration of physical server environment to the virtual server environment.
- 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.
- 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.

- Objective 2: Develop a plan for wired and wireless network infrastructure upgrades across campus that will be necessary over the next 3-5 years.
- Objective 3: Develop funding mechanisms to support ongoing network enhancements in partnership with key constituencies on campus including Housing and the Student Senate.
- 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.

- 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.
- Objective 2: Implement necessary changes to the active directory infrastructure which support an effective StarID implementation and enhance other technology services.
- Objective 3: Work with the MnSCU StarID deployment team to successfully implement StarID as the primary identifier for campus hosted applications and services.

- 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.

- 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.
- 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.

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.
- Objective 2: Develop a SMSU ITS Services Catalog.
- 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).
- 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.
- Objective 5: Develop and publicize an SMSU ITS Help Desk “priorities statement”.
- 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.
- Goal 2:** Enhance agility of SMSU ITS to meet continuously changing client needs and enhance customer service for the SMSU community.
- 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.
- 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.
- Objective 3: Research the practicality and viability of using “service level agreements” to support specific services in place for individual constituencies and departments.
- Objective 4: Investigate the value of implementing extended hours for SMSU ITS support beyond current levels in light of budgetary restrictions.
- 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.

- Objective 6: Evaluate the value of adopting widespread IT service management strategies (e.g., ITIL) within SMSU ITS.
- Objective 7: Continue existing internal departmental initiative to fully adopt Kablink as a multi-purpose tool to support such key operations needs as documentation management, 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.

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
- Objective 2; Promote the availability of SMSU ITS staff to participate in constituent group meetings on campus technology services and needs.
- 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.
- 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 foreseeable future (See Strategic Direction 2, Goal 4). Options for future infrastructure enhancements that should be considered include partnerships with wireless network service providers.

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.

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.

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).

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.

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.

Objective 5: Begin implementation of capacity development.

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.

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.

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.

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”.

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

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.

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.

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

Goal 7: Develop a Business Intelligence 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.

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

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