Southwest Minnesota State University

Information Technology Services
July 2024 – June 2027 Strategic Plan

Introduction

Information technology is increasingly 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 has engaged in an ongoing 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

The approach to developing this strategic plan has been multi-faceted. Several inputs have been incorporated into the development of the Strategic Directions outlined as well as the individual goals, objectives and identified actions that are detailed. Among the inputs to highlight include the following:

1. Large group listening sessions (e.g., faculty assembly, student government, University Town Halls).
2. Small group listening sessions (e.g., campus technology committees, individual academic and administrative departments.)
3. Participation in recent Educause Center for Analysis and Research (ECAR) surveys conducted of students and faculty.
4. Participation by ITS staff in national and statewide events such as conferences, webinars, and workshops.
5. The University Strategic Plan process.
6. Minnesota State system wide initiatives particularly initiatives led by the Information Technology Services and Academic and Student Affairs divisions.
7. Review of internal data and feedback collected.

As a next step, SMSU ITS will be engaged in the development and implementation of tactical efforts to accomplish the varied goals and objectives outlined for the three-year period that begins on July 1, 2024—some of which are already in progress. It is anticipated that the tactical approach 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 Minnesota State 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 Strategies Committee, the President's Cabinet, and performance reviews. Progress will also be updated on the ITS web site periodically.

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 campus-based service unit, SMSU ITS has responsibilities for supporting physical and virtual services that support the University community. These services include such items as computer workstations deployment and management, a campus network infrastructure for both wired and wireless services, campus based servers and systems that support various campus services, campus identity management, professional development, learning spaces infrastructure, software systems administration and contract management, applications development using tools such as Office365, information security, miscellaneous campus systems and services (e.g., security cameras, ID cards, point-of-sale systems) and even Esports.

As a member of the Minnesota State System, SMSU is reliant upon core administrative software applications managed by the System Office's Information Technology Services division or in some cases, a hybrid team of System Office and Institutional employees. These applications include identity management services (StarID), the Integrated Student Records Systems (ISRS), Event Management Systems, e-Procurement (Marketplace) and Blackboard Connect. The System Office also provides leadership, management, and support in the critical areas of wide area networking and information security.

Critical to note is that pursuant to a multi-year process, the Minnesota State System effective July 1, 2024, is transitioning Finance and HR processes to Workday from ISRS. Student facing services (e.g., registration process, financial aid, admissions) will remain in ISRS for at least the next 3-4 years but planning to transition those services to Workday is actively underway. A transition date has not yet been determined.

The central role of the System to technology services is further demonstrated through the existence of a centrally managed Microsoft365 "single tenant" serving all the Minnesota State institutions. The single tenant supports such services as email, online storage, core Microsoft applications such as Word, Excel, Forms and Teams as well as services such as PowerBI. The single tenant is managed by a "Core Team" of System Office staff together with campus-based staff on loan to the Core Team. Microsoft licensing is negotiated at a Systemwide level.

In addition, the System Office manages a system wide implementation of learning management software--Desire2Learn Brightspace (D2L Brightspace). The System Office also manages some specific enterprise-wide academic services such as Zoom and Kaltura.

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, 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 system wide deployment of Perceptive Content—a document management system. Perceptive Content is an example of a shared service to support critical information technology operations across the system. SMSU also has key relationships with vendors to support applications utilized on campus. These include the "hybrid on-premise and cloud system" such as the Atrium ID Card service and "cloud-based" constituent relationship management (CRM) systems like Slate.

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 in the near future.
2. Budgetary resources available to SMSU ITS will not change significantly in the near future.
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. Technology will continue to evolve at a rapid pace typified by the emergence of Generative Artificial Intelligence (AI) technologies that will impact higher education in the years to come.

SMSU ITS 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 ITS 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

As a unit, SMSU ITS is unique in its organizational structure compared to other universities and colleges within Minnesota State and elsewhere in the nation. The CIO position reports to the President and is on the President's Cabinet. Currently, the CIO 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. Currently, SMSU ITS includes two service teams—Client Services and Infrastructure. Client Services staff report to a Director while Infrastructure Services staff report directly to the CIO. Also, in recent years, an E-Sports program has been added at the University. The coaching duties are encompassed within ITS. As of the finalization of this plan, an active search

process is underway for a full-time E-Sports coach that will be housed within ITS. By its nature, the program has critical relationships with several areas of the University including Athletics, Admission and Student Affairs.

Including the CIO, there are 12 positions comprising 11.30 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 15-20 student workers each year that work in the Technology Resource Center (TRC). Among the primary functions of the TRC is to serve as the University's IT help desk. Including the CIO, SHOT and MTM have 3 employees comprising 1.7 FTE. The SMSU ITS organization chart is attached as Exhibit 1.

Two other divisions at the University—Institutional Research/Data Management and Web Services—that work closely with ITS on a daily basis involve another five (5) full-time positions and some student worker support. These two divisions report to the Provost/Vice-President for Academic and Student Affairs and the Vice President for Advancement, respectively.

ITS also has a close working relationship with the McFarland Library. Indeed, in the Fall of 2016, ITS and the McFarland Library partnered to relocate the TRC and some ITS staff into the McFarland Library's space. ITS and the McFarland Library also team up to provide staff support for the Center of Learning and Teaching (COLT) located on the 5th floor of the McFarland Library. COLT's mission is to build a community of engaged and creative educators at SMSU on campus and virtually. COLT helps to support SMSU's growing online presence by providing workshops, resources, and one-on one assistance for educators in the areas of professional development, online course design, academic technology, media, and administrative support for program development.

SMSU has several standing technology services related committees that serve to provide input into SMSU ITS services. These committees include the: 1) University Technology Strategies Committee; 2) Student Technology Fee Committee; and the 3) SMSUFA Academic Technology Committee. Also, on an as needed basis, ad hoc committees, workgroups or task forces are created to develop recommendations for addressing specific issues. A recent example of such an ad hoc group was the Academic Technologies Infrastructure Workgroup (ATIG) that met routinely in 2016 and 2017 before issuing its summary report. The ATIG developed recommendations for the University to pursue in the area of academic technology infrastructure that are still guiding some of the learning spaces technology decisions of today.

Strategic Directions

https://www.smsu.edu/administration/strategicplanning/strategicplan/strategic-plan-summary.html
https://www.smsu.edu/administration/strategicplanning/strategicplan/index.html

Strategic Direction #1: A robust, innovative & accessible technology environment that supports University community success.

Goal 1.1: Strive for a modern technology-enabled environment for all University teaching and learning spaces.

- Objective 1.1.1: In conjunction with Physical Plant & Facilities and impacted departments develop additional "showpiece rooms" that support highly engaging learning opportunities.
    - Action 1.1.1.1: Complete 'SM169 project'.
    - Action 1.1.1.2: As funding made available, complete various phases of 'Model Classroom project' for Education programs.
    - Acton 1.1.1.3: Develop plans and pursue renovation of BA 314 and BA 319
- Objective 1.1.2: Develop a learning spaces modernization funding cycle to ensure spaces stay current with emerging technologies.
    - Action 1.1.2.1 Identify funding mechanisms.
    - Action 1.1.2.2 Leverage "Leveraged Equipment" funds in support of ongoing updates.
- Objective 1.1.3: Pursue learning space designs that can effectively support hybrid teaching and learning activities in support of a growing online student population.
    - Action 1.1.3.1: Plan for continued expansion of hybrid classroom technology capabilities.
    - Action 1.1.3.2: Continuously seek to update existing classroom technology components in alignment with the pace of technology change.
    - Action 1.1.3.3: Pursue special projects such as the Math Liteboard based teaching studio and completion of the LabStats virtual lab environment in support of off-campus students.
- Objective 1.1.4: Continue focus on developing technology-enhanced collaboration spaces, both off and on-campus, that support success for the entire University community.
    - Action 1.1.4.1: Identify additional locations for technology enhancements (e.g., airtames) that can support collaborative learning.
    - Action 1.1.4.2: Support services such as the Office on Online Learning & Transfer Partnerships and the Deeann Griebel Student Success Center in their efforts to extend outreach to online students.
    - Action 1.1.4.3: Keep accessibility at the forefront of any such space designs.
- Objective 1.1.5: Provide access to a wide array of innovative technical resources and tools that support University success.
    - Action 1.1.5.1: Investigate utility of new technologies and software for potential funding & support (e.g., AI tools).
    - Action 1.1.5.2: In conjunction with COLT, develop efforts to pilot the use of AI tools to support various areas including both academic and administrative services.
    - Action 1.1.5.3: Support the expansion of the Esports program.
    - Action 1.1.5.4: Continue efforts to develop innovative virtual learning environments like the Data Science's program student portal environment for class assignments work.

Goal 1.2: Support a multi-faceted and reliable University technology infrastructure that meets the service needs of today's University community.
- Objective 1.2.1: Within necessary security protocols and practices, provide 'Anytime, Anywhere Access' to the University community for needed resources.
    - Action 1.2.1.1: Implement tools that provide secure remote access to the University technology environment.

- o Action 1.2.1.2: Maintain an up-to-date wireless network infrastructure that provides effective network access from as many locations as technically possible.
      - o Action 1.2.1.3: Implement robust and secure services that support BYOD mobile device access to resources for the University community and guests.
      - o Action 1.2.1.4: Implement and maintain additional cloud-based tools such as Office365, Teams, and Zoom Phone that can be accessed 'anytime, anywhere' in order to enhance collaboration.
- Objective 1.2.2: Strive to provide up-to-date hardware and software licensing that meets the University community's teaching, learning, research, and security needs.
      - o Action 1.2.2.1: Transition the University to Microsoft A5 licensing to address such items as enhanced security protections and PowerBI services.
      - o Action 1.2.2.2: Expand scope and access of services that support student and faculty research (e.g., Qualtrics, SPSS).
      - o Action 1.2.2.3: Expand scope of software resources (e.g., Adobe Creative Suite, Turnitin, Hypothesis, Respondus) available to support quality teaching and learning delivered in both an on-campus and online mode.
      - o Action 1.2.2.4: Partner with Accessibility Services to address technology accessibility needs of the University community.
- Objective 1.2.3: Keep Equity considerations at the center of all technology services planning including activities that can address Equity needs.
      - o Action 1.2.3.1: Develop and implement the Technology Equity Grants (TEG) Program funded with seed funds by the Student Technology Fee Committee and Student Senate in AY 2024.
      - o Action 1.2.3.2: Keep equity central to any technology services deployment and expansion at the University.
- Objective 1.2.4: Continue robust planning and support for the University's administrative and student support divisions' specialized technology needs.
      - o Action 1.2.4.1: Provide software procurement and integration services support.
      - o Action 1.2.4.2: Support the expansion of user directed services (e.g., OneDrive, Teams, Microsoft Forms) by these divisions for their business processes and other day-to-day operations.
      - o Action 1.2.4.3: Promote the use of PowerBI services for data-driven decision making as part of the transition to Microsoft A5 licensing.

Goal 1.3: In partnership with Public Safety, Facilities, and department service requests, implement and maintain technology systems that support necessary measures in support of University health and safety.
- Objective 1.3.1: Enhance and expand the University's current security camera system.
      - o Action 1.3.1.1: Complete wiring project to support installation of 14 new cameras to be located in various spaces around campus.
      - o Action 1.3.1.2: Develop long-term plan for expanding security camera system locations across campus.
- Objective 1.3.2: Implement and maintain requested 'emergency notification' systems.
      - o Action 1.3.2.1: Strive to enhance the underlying data management with existing Blackboard Connect (SMSU Alert) tool in conjunction with the transition to Workday.

- o Action 1.3.2.2: Support University Public Safety with the trial deployment of the Alertus notification tool and its possible expansion.
- o Action 1.3.2.3: Investigate the future capabilities of Zoom phone tools that can be used for emergency notification.
- Objective 1.3.3: Implement electronic door access systems pursuant to identified service needs.
  - o Action 1.3.3.1: Complete implementation of Residence Halls external door access project.
  - o Action 1.3.3.2: Identify priority locations and funding sources for other campus locations for electronic door access capacity.
- Objective 1.3.4: Maintain support for existing and future 'electronic health systems' needs identified by Health Services and the Mental Health Counseling Center.
  - o Action 1.3.4.1: Continue to support the existing Titanium Schedule service in support of the Mental Health Counseling Center.

Goal 1.4: Support both the conversion to Workday for both HR and Finance business processes in addition to coordinating overall planning at the University level for the future utilization of Workday for student-facing services.
- Objective 1.4.1: Partner with the University's HR and Finance divisions to provide "Tier 0" and "Tier 1" support services for the University community utilizing Workday for business processes within those service areas.
  - o Action 1.4.1.1: Train ITS staff and student workers regarding the resources that are available to users to support Workday use.
  - o Action 1.4.1.2: Develop and refine tactical plans in conjunction with the HR and Finance divisions for the University's community support needs.
- Objective 1.4.2: Provide coordination at the University level for the planning processes associated with transitioning student-facing services to Workday in a yet to be defined timeline.
  - o Action 1.4.2.1: Lead the University's needs to identify "Companion Projects" that in the future will either be subsumed by Workday, integrated with Workday, or remain as stand-alone systems outside of Workday.
  - o Action 1.4.2.2: In conjunction with the Data Management and Information Research division, lead planning efforts associated with the needed integration of various Companion Projects with Workday.
  - o Action 1.4.2.3: Initiate planning processes across the University regarding support needs on future Workday student-facing services.

Strategic Direction #2: A technology literate University community with easy access to critical information.

Goal 2.1: Increase awareness among the University community regarding available technology tools and resources.
- Objective 2.1.1: Provide documentation and links on the ITS web site to resources and instructions/tips.
  - o Action 2.1.1.1: Develop an end user focused services catalog and knowledge base.

- - Action 2.1.1.2: Review and update ITS web site information.
    - Action 2.1.1.3: Develop an ITS web site review schedule and process.
    - Action 2.1.1.4: Utilize existing COLT Faculty and Staff Teams sites as enhanced resource repositories.
  - Objective 2.1.2: Continue to utilize and publicize COLT Teams sites as sources for technology resource information.
  - Objective 2.1.3: Develop unique campus-based materials on Systemwide tools and services when needed for consumption by users.

Goal 2.2: Enhance and expand technology centric professional development and awareness opportunities.
  - Objective 2.2.1: Grow training and awareness programs available through COLT.
    - Action 2.2.1.1: Develop student-oriented, including online student-oriented, awareness activities.
    - Action 2.2.1.2: Enhance COLT's physical space including "Media Center" facilities and equipment.
    - Action 2.2.1.3: Leverage existing faculty and staff development days as opportunities to share valuable information.
    - Action 2.2.1.4: Establish partnerships with student services groups in order to increase access to student populations for the purpose of providing technology resource information.

Goal 2.3: Enhance and expand Users' awareness of techniques and practices that help maintain a secure University technology environment.
  - Objective 2.3.1: Develop programming focused on enhancing users' knowledge of tips and techniques to maintain effective security postures.
    - Action 2.3.1.1: Develop specific campaigns on such topics as phishing awareness, malware prevention, etc.
    - Action 2.3.1.2: Develop and conduct awareness and training sessions pertaining to good end user security practices.

Goal 2.4: Partner with Human Resources and Business Services to provide easily accessible information for the SMSU Community on Workday tools and processes.
  - Objective 2.4.1: Provide access to online resources on Workday usage.
    - Action 2.4.1.1: Develop internal SharePoint sites for use by Human Resources and Business Services to post information including a FAQ site.
    - Action 2.4.1.2: Develop and maintain a plan for both "Tier O" and "Tier 1" support services.

Strategic Direction #3: The University will have a resilient and secure technology environment.

Goal 3.1: Implement and maintain appropriate controls for the University's technology environment.
  - Objective 3.1.1: Ensure the University's data center continues to be a 'state-of-the art' facility with adequate security and environmental controls.

- o Action 3.1.1.1: Continue implementation of a 'Cloud Oriented' strategy for the deployment of new services.
        - o Action 3.1.1.2: Continue transition to 'Cloud Infrastructure' for existing services where economically and operationally feasible.
        - o Action 3.1.1.3: Ensure security infrastructure including firewalls and network switches remain up-to-date and properly maintained.
        - o Action 3.1.1.4: Ensure the necessary power and environmental controls remain resilient in the case of unplanned weather circumstances.
        - o Action 3.1.1.5: Maintain appropriate and reliable "back-up" and security processes and controls for the University's technology infrastructure.
- Objective 3.1.2: Partner with Business Services to ensure that technology procurement processes keep security needs foremost.
        - o Action 3.1.2.1: Pursue information security reviews for technology services identified for utilization by University departments.
- Objective 3.1.3: Maintain necessary inventories of technology systems and services.
        - o Action 3.1.3.1: Periodically review and update the data classification inventory for all systems and services.
        - o Action 3.1.3.2: Periodically review and update systems and applications inventories.
        - o Action 3.1.3.3: Periodically review and update the inventory of users with administrative privileges on all University managed server systems.
        - o Action 3.1.3.4: Implement proper controls on systems and services contingent upon data classification.
- Objective 3.1.4: Consistent with System ITS Security and System Internal Audit directives, implement the National Institute of Standards and Technology (NIST) cybersecurity framework.

Goal 3.2: Continue efforts to retire "home grown" software applications in favor of available commercial tools.
- Objective 3.2.1: Migrate "PhP forms" to tools such as Microsoft Forms, Microsoft Power Platform, Perceptive Content or Qualtrics.
- Objective 3.2.2: Retire the homegrown SouthwestNet portal environment in favor of vendor provided tools.
        - o Action 3.2.2.1: Complete the implementation of a public employee directory utilizing the existing vendor provided content management system used for managing the SMSU web site.
- Objective 3.2.3: Develop new software applications using such tools as Microsoft Forms, Microsoft Power Platform, Perceptive Content or Qualtrics.

Strategic Direction #4: SMSU Information Technology Services will be a highly efficient and effective support organization.

Goal 4.1: Enhance internal service management processes and tools that can meet departmental and University community needs.
- Objective 4.1.1: Complete the Request for Proposal process initiated in FY 2024 to obtain vendor proposals for Information Technology Service Management (ITSM) systems.

- o Action 4.1.1.1: Select a vendor product for contract development.
- o Action 4.1.1.2: Initiate implementation of the new ITSM product and available features.
- o Action 4.1.1.3: Launch the ITSM service for use by the University community for IT service needs.
- Objective 4.1.2: Pursuant to the implementation of the new ITSM system, increase the use of data analytics to assess relative strengths and weaknesses of ITS operations and act accordingly.
- Objective 4.1.3: Beginning with the Facilities division, work to implement the ITSM system for use by other service areas across the University.
- Objective 4.1.4: Increase the use of collaboration technologies (e.g., Teams, Zoom) to provide efficient and effective IT support for the University community.

- ***Goal 4.2: Enhance and expand internal staff professional development activities.***
  - Objective 4.2.1: On an ongoing basis, assess the technology service needs of the University community.
  - Objective 4.2.2: On an annual basis, update IT staff development plans in light of departmental and University service needs.