

[Information Technology Strategic Plan, 2009-2011]

Introduction

Technology services at SOU have continued to grow and evolve in an unstructured manner since the last strategic plan developed for the period 2000-2003. Volatility in SOU's financial circumstances and leadership changes within the Information Technology (IT) organization as well as the administration have made it difficult to forecast long term plans. However, a renewed commitment to institutional strategic planning happening at all levels of the institution, and the revival of a Technology Council governance structure creates a favorable situation for effective IT planning. Financial pressures also have made it imperative to review information technology priorities across the institution and to align initiatives with the strategic plans of the institution optimizing for cost savings and efficiency.

This plan articulates initiatives to be accomplished that will enhance information technology services in support of SOU's Strategic Plan and the various associated department plans developed across the institution. Due to financial and staff resource constraints as well as the evolving planning process of the new Technology Council this plan will focus on a short predictable two year period. The plan initiatives will be completed Spring 2010 through the end of Fall 2011. Incorporated into the plan are many of the recommendations made by VIE (now Mass Ingenuity) in the IT Snapshot Assessment from August 2009 and subsequent consultations during the 09-10 academic year. This plan is operational in nature and will be updated annually to reflect changes in direction or new opportunities identified by the Technology Council and campus units. The plan is organized into six strategic goals for information technology services. Additional documents clarify initiative details, timelines, and costs.

Vision

The 2009-2011 Strategic Technology Plan primarily focuses on the high level technology goals established by the academic and administrative divisions of the University required for supporting the institution's strategic plans. The technology plan also addresses some new or emerging options, and identifies major infrastructure improvements needed to meet user expectations, ensure sufficient systems capacity and performance, and comply with industry or regulatory requirements. Unless there is a major upgrade or infrastructure change being recommended, the plan will not delve into the routine tasks necessary to maintain and operate the technology infrastructure, Help Desk support, or network and desktop services already in place. The plan takes into account the capacity of staff resources to work on new strategic initiatives by considering that roughly 70-80% of IT staff hours are committed to routine maintenance activities, while new strategic initiatives must be accomplished in the remaining 20-30% of time. The plan also considers the impact that loss of critical staff positions due to budget reductions will have on the capacity of the IT Department to undertake new initiatives and provide services. Due to the budget restrictions anticipated for this planning period the plan will primarily focus on initiatives that can be accomplished by leveraging technology that the University already owns. Some options for open source¹, free cloud computing services and service consolidations will also be explored. The plan includes a few critical initiatives where investment is needed.

¹ http://en.wikipedia.org/wiki/Open_source

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IT Mission

The Information Technology Department advances the vision, goals, and strategic direction of the University by contributing to instructional innovation, maintenance of technology services and facilities, and service improvements through the use of technology systems, tools, and resources that increase SOU's flexibility and effectiveness. To achieve this we:

- Effectively manage the growth of integrated on-line information systems
- Provide universal access, training, and support for students, faculty and staff to enable effective use of technology
- Continually improve the performance, security, ease of use, and reliability of campus networks, systems, and services
- Assist in designing, acquiring, implementing and maintaining technology that supports the academic and administrative missions of individual campus departments
- Define and promote new opportunities for improvement using state of the art and emerging technologies

IT Governance and Plan Review

During 2008-09 the Provost's Deans Council approved a new Technology Council governance structure. The council convened in Fall 2009 with the purpose of working with IT to development of a multiyear technology plan.

The Technology Council considered many factors in developing the plan including:

- Input from the Executive Council, campus stakeholders, and the Mass Ingenuity consultant
- Alignment with SOU's Strategic and Master Academic plans
- An evaluation of routine IT maintenance activities
- A review of persistent IT problems
- IT capacity to complete the initiatives outlined in the plan
- Input from employee and student satisfaction surveys
- OUS and NWCCU requirements
- IT industry trends

This plan has been endorsed by the SOU Technology Council. During Spring 2010 the plan will be reviewed with the Executive Council, Faculty and Student Senates, and campus administrative councils. Following adoption, the Technology Council will review IT progress in completing initiatives each quarter adjusting for changing priorities and circumstances. An annual IT progress report will be published with more frequent briefings to the Executive Council and Technology Council. The plan will be updated and expanded annually. The plan and supplemental documents are posted on the IT web site under "Planning & Governance".

Goal 1: Improve technology that supports learning

E-learning software tools have changed since the last time SOU evaluated solutions. SOU is still using the entry level “Basic” version of Blackboard. Blackboard Basic does not provide: functionality to support evolving requirements of faculty or the university administration; registration, course and account synchronization with the Banner Student Information System and MySOU; sufficient system capacity as SOU grows the number of distance education, blended learning or when used in combination with face to face instruction. A committee of faculty and distance education staff is currently undertaking a review of courseware options that may be considered to support future needs.

Many institutions are moving to a new model for supporting smart classrooms. This new model includes the use of a control panel in the teaching station that makes it easier for faculty to use the equipment by eliminating numerous individual device controls. These same systems provide the capability to revolutionize help desk support for the smart classrooms by providing the capability to monitor the classroom equipment for problems and allow technicians to quickly and remotely repair many problems. Classrooms at the Higher Education center have these control systems in place and a few have been installed on the Ashland Campus. Monitoring and remote repair functions under development may be done in partnership with Rogue Community College saving staff resources and resulting in consistency between SOU facilities.

Course materials are increasingly transitioning to rich digital content, SOU requires the infrastructure to store and deliver this content, expanding capacity as necessary to support faculty and course delivery.

Initiatives:

- Implement a course management system that can be integrated with SOU information and web systems with enhanced functionality and capacity to grow with the expansion of distance and online education.
- Upgrade Blackboard Basic to Version 8 for continued support from Blackboard until the migration to a new system can be completed.
- Assist Distance Education Center and Library with implementation of Elluminate, Refworks and Turnitin to enhance e-learning systems.
- Evaluate and implement online course evaluation system to support faculty and course review and assessment.
- Convert remaining unequipped classrooms to smart classrooms.
- Establish new standards for smart classrooms that are easier for faculty to use. The new standard would include management consoles, document cameras, and interactive screens.
- Program control system software to improve service and support for electronic classrooms with trouble monitoring, remote management, and usage tracking.
- Support the Academic Departments, Library, and Distance Education in designing and implementing a streaming content delivery and storage solution for rich media course materials, lecture events and live performances.

[Information Technology Strategic Plan, 2009-2011]

Alignment with SOU Strategic Plans:

Indirectly supports: SOU Strategic Direction to provide an inclusive learning environment using technology. Master Academic Plan: Goal 1 – Support on-line pedagogy; Goal 2 – Demonstrate quality of academic programs.

Goal 2: Enhance student services to improve enrollment growth and retention

Increasingly academic administrative services are provided online. SOU's administrative systems, while robust must continue to undergo improvement to keep pace with anytime, anywhere service expectations and information access demands, and to ensure operational efficiency. There is redundancy in procedures and systems used across the institution that if consolidated or better integrated with systems working in conjunction with the Banner Information Systems would improve service to students and result in more effective operations. The consistency and integrity of data, and new reporting tools are needed to ensure that information can be relied upon and useful for planning.

Responsibility for design and content of SOU's public web site and portal have shifted to campus departments directly responsible for marketing, recruitment and retention efforts. IT provides the services necessary to support the web and MySOU infrastructure and systems. Improvement efforts will focus on integrating the institution's brand, improving navigation, reducing text, making the sites more visually appealing and improving communication and access to administrative services in MySOU.

Initiatives:

- Develop electronic advising planning and tracking system linked to the Banner student information, academic scheduling and other online advising systems.
- Replace the online catalog with Acalog improving search capabilities and catalog workflow, reducing costs and better integrating with SOU web site.
- Provide support for implementation of EMS event scheduling software to improve campus scheduling and events communications. Including software installation, Banner interface and calendar consolidation.
- Assist Enrollment Services in implementing Astra academic scheduling and analytics system to optimize classroom and class scheduling.
- Implement Online Graduation Application.
- Analyze information systems impacts and costs to convert to semester system.
- Upgrade Data Warehouse Reporting Software BI Query to Version 10.
- Improve student service response and create efficiencies by automating processing for selected business workflows using Banner Workflow. Examples: HR status changes, grade changes, degree application, address changes, admitting students, etc.
- Provide support to Institutional Research in developing new reporting systems and determining a long term plan for the FAST reporting system to improve data accuracy and accessibility.
- Assist Interactive Marketing and Communications Office in implementing new public web site, and implementing tools to support rich media content.

[Information Technology Strategic Plan, 2009-2011]

- Upgrade aging web server equipment to improve web site performance and support increase in rich media.
- Provide programming services and support for MySOU development as requested by MySOU Governance Committee.

Alignment with SOU Strategic Plans:

MAP Plan: Goal 1 – Academic calendar modifications, seamless student advising system, Goal 2 – periodic review of student learning, support information and reporting needs of Institutional Research Office. SOU Strategic Plan Goal 4 – Implement marketing strategies to support strategic goals. Enhancement and redesign of MySOU recommended in VIE report. In support of Marketing and Communications initiatives.

Goal 3: Migrate to better network and communications services

Students and employees operate in an online mobile world with the expectation of electronic access anytime, anywhere. Meeting expectations requires reliable high performing wireless networks, and modern email and telephony solutions that interface with smart phones, handheld computers, Web 2.0 and social networking technology. Academic programs are increasingly delivered partially or fully online using various e-learning and Web 2.0 technologies. Resident students expect network and entertainment services comparable to those they have at home.

SOU's network and desktop systems need to be updated in a variety of ways. The Novell Netware operating system, while once considered best of breed no longer meets SOU's needs. Novell has declined in popularity, is difficult to integrate with emerging technology and for IT to support, and is not compatible with systems used at the Higher Education Center. IT is in the process of migrating to Microsoft solutions to improve network services. Personal computers must be regularly replaced and software upgraded to keep pace as technology changes. Such changes are required because the vendor has discontinued support, or when security vulnerabilities or interoperability issues arise between software versions.

Initiatives:

- Improve e-mail system reliability and access to mobile communications by migrating to a new email system for employees and students.
- Improve performance, reliability, and support for network services and directory systems by migrating from Novell to Microsoft solutions.
- Evaluate feasibility of reducing costs by outsourcing network and entertainment services in Residence Halls.
- Improve the quality of network services in the Residence Halls by building a wireless infrastructure, replacing antiquated wired infrastructure, and increasing bandwidth.
- Implement a new funding model for communications services to ensure revenue sufficient to maintain campus network and telephone services.
- Upgrade unsupported telephone switch (PBX) components.
- Working in partnership with OUS 5th Site plan the migration to a sustainable Banner operating system platform (from VMS to Linux).

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- Complete configuration planning for Windows 7 and Macintosh Snow Leopard and upgrade computer labs, classroom and new office computers.
- Determine unified messaging² strategy and replace unsupported voice mail system.

Alignment with SOU Strategic Plan:

MAP Goal 1 enrollment growth by improving basic infrastructure and services that support campus communications and meet user expectations for mobility and access to academic services. VIE Report on student email strategy and IT Technology Infrastructure and Security. Indirectly supports SOU Strategic Plan Goal 1 Academic Quality by providing faculty with reliable desktop computer systems to allow them to accomplish their work.

Goal 4: Improve IT department communication and support services

Mass Ingenuity has made a number of recommendations for improvement in IT policies, procedures, project management and improvement in communication between the IT department and the campus. The Technology Council recommends continued attention on resolving persistent IT problems.

Initiatives:

- Monitor and report on persistent IT problems.
- Improve IT performance and service by establishing service level agreement (SLA), change management, frequent project status reviews, and project portfolio management.
- Implement a service measurement portfolio for tracking and reporting IT service performance.
- Gain efficiencies by consolidating Faculty/Staff Help Desks
- Improve quality of Help Desk Tier 1 response by improving training and performance management of student staff.
- Simplify IT Budget structure to support decision making and accountability.
- Align IT Budget with university strategic planning and restore funding for equipment and technology replacement and maintenance needed to ensure reliable services.
- Revise and simplify account provisioning systems to reduce authentication problems and facilitate access to information systems.
- Improve availability of Help Desk services by implementing web based ticketing and self service knowledge database.

Alignment with SOU Strategic Plans:

Goal 4 - align budget development with strategic goals and collect and analyze data to inform budget decisions. VIE Report – Performance and Operational Metrics, IT Governance, Planning and Project Management, Policies and Procedures, Budget.

² http://en.wikipedia.org/wiki/Unified_messaging

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Goal 5: Reduce information systems risks

Information Technology is increasingly regulated by a variety of policies and laws. SOU is in the early stages of adopting new and improved security policy and procedures to comply with OUS, Federal and State of Oregon requirements. Risk management must become a priority for the Information Technology organization. SOU Employees have the responsibility to learn about and take action to protect the information resources of the institution.

Initiatives:

- Develop and implement a comprehensive set of security policies and procedures to comply with OUS Security Policy, Oregon Identity Theft law SB-583, HIPPA, CALEA, GLBA, Civil Rules of Procedure for electronic document discovery, American Disabilities Act etc.
- Implement strong password rules and password change policy.
- Implement VPN encryption technology to increase protection of SOU data when employees are mobile and accessing data from home.
- Provide security awareness training for employees.
- Implement procedures and publish information to comply with digital copyright requirements in the Higher Education Act.
- Develop, implement and test an SOU IT disaster and business continuation plan. Integrate this plan with SOU Emergency Response plans.
- Contract for penetration and vulnerability testing of the SOU network.

Alignment with SOU Strategic Plans:

Required by various OUS policies, State of Oregon and Federal laws, and VIE Report – Disaster Recovery

Goal 6: Improve information technology sustainability

Savings in energy and operating expenses can be achieved by deploying various technical solutions to manage power consumption and conserve resources.

Initiatives:

- Complete server virtualization project to reduce energy consumption in the data center.
- Implement Green Purchasing practices and assist campus departments in compliance with Green Purchasing practices.
- Deploy power conservation solutions for desktop computers, classroom equipment and printers.
- Develop a proposal for reducing printing.

Alignment with SOU Strategic Plans:

SOU Strategic Plan Goal 2 – Intentionally integrate sustainability throughout the university culture