

INFORMATION TECHNOLOGY DIVISIONAL PLAN 2009–2014 SUMMARY - DRAFT -

Mission and Aspirations

The mission of the Division of Information Technology is to provide students, faculty and staff with the technology infrastructure and support services that facilitate advancing the University of Wyoming's mission of education, research, outreach and service.

Under the direction of the Vice President for Information Technology and Chief Information Officer, the division is organized into four departments that provide students, faculty, and staff with high performance computing and networking, technical support for systems and applications, computer support and training, and telecommunications services. Information Technology provides these essential technology services to all the university's students, academic units and administrative units.

Technology is integral to instruction, research and administration. The academic community depends on technology to be accessible and reliable to empower its users to transform teaching, research and learning. The University relies on uninterrupted technology services to deliver business operations in an efficient, cost-effective manner. The University of Wyoming, as the state's land-grant university, uses its technology infrastructure to assist in serving the citizens of Wyoming and their communities, connecting them to the university's various resources.

The Division of Information Technology's most valuable resources are its highly skilled staff members, who provide a broad range of support to the university community. IT measures employee performance on five core values: customer service; teamwork; a positive work environment; planning and project management; and quality and effectiveness of work. IT is a values-based organization that strives to provide service excellence, expertise for technology enablement and partnering with all members of the university community.

First and foremost, IT remains a customer service focused organization. IT's primary objective is to provide quality customer service support and UW with a reliable, robust computing, communications and network infrastructure. This plan addresses key initiatives that Information Technology will undertake in the next five years to help accomplishment that objective.

Previous Planning and Accomplishments

Security: Since 1997 planning has structured and guided Information Technology's various accomplishments. In the last few years UW's network security and central computing security have been and continue to be institutional priorities. Information Technology installed network firewalling as well as network intrusion and prevention systems in 2007 to help protect UW's data. The UW network has been divided into varying security zones requiring differing levels of credentials for access. IT has conducted security training seminars for students and departmental staff. An additional layer of firewalling has recently been implemented to further protect the university's data. Information

Technology is in the process of changing much of its computer architecture to virtualization, further enhancing computing security.

Access: Remote access, wireless connectivity and video teleconferencing services are technology tools that help meet the connectivity demands of the new generation of technology users who expect network access anywhere and anytime, user convenience, and greater bandwidth.

Providing students with remote computer access to UW's high-quality student computing lab system was a significant addition to the institution's educational resources. The implementation of the remote access computing lab extended UW's campus computing resources by allowing students to remotely access over 100 software applications from anywhere in Wyoming or the world.

The campus wireless network was recently replaced and upgraded. Wireless coverage was broadened to new campus areas and will continue to grow as communication styles evolve and students, faculty and staff utilize more wireless devices.

Working with Outreach, IT implemented enhanced video teleconferencing services to support the growing distance learning demand. Working with Disability Services, IT expanded adaptive technology in student computer labs.

Support: Information Technology continues to expand support and Help Desk services, including broadening support to better serve the UW's Wyoming Technology Business Center, UW's research community and the expanded use of Internet technologies to better support Outreach and distance learning students. With the support of Academic Affairs, IT hired an instructional technology manager and a small part-time staff to support UW's classroom technology. Together with Student Affairs, UW Public Relations and others, IT implemented an emergency notification system, UW Alert, to provide emergency text message capability to students, faculty, and staff. Registered participants totaled 10,190 on October 30, 2008.

Over much of the last two years Information Technology has concentrated on building the new Information Technology Center, which is scheduled for completion in December, 2008. The ITC will provide technology services to students, faculty and staff including more user support, more training capability and a new 24/7 student computing center with convenient access from UW's main student residential area. Another new IT operated student computing lab will be located in the new Information Library and Learning Center.

Some of the more noteworthy Action Items accomplished in the last planning cycle are detailed in the table below:

Action Item	Implementation Status
SIS/WyoWeb portal technology	Portal implemented. Enhancements ongoing.
WyoWeb as a communications tool	Various areas completed. Ongoing work with Student Affairs on continued enhancements.
Protecting privacy and personal data	IT completed removal of SSN as primary identifier from central administrative systems.
Expand remote network access	Equipment upgraded. Wireless access expanded to new campus areas including student apartments.
UW Technology Planning Team	Technology Planning Council formed.

Information Technology Services Review	IT services review completed. Initiatives recommended were implemented or placed under review/evaluation by the Technology Planning Council.
Network funding	Recurring funding for the data network was approved by the Legislature. Network infrastructure being upgraded each year.
Funding for central information technology equipment replacement	Recurring and one time funding was approved by the Legislature resulting ongoing computer system equipment upgrades.
Support for total cost of ownership of PeopleSoft applications	Total Cost of Ownership model completed. Partial recurring funding approved by the Legislature.
Enhance UW's web-based services and web presence	New servers with greater capacity and additional software installed. Main project and portal work completed. Enhancements are ongoing.
Emergency preparedness	IT participated in Pandemic Planning and Emergency Notification Planning for Crisis Management. IT, working with Student Affairs, implemented an emergency notification system, UW Alert.
Disaster Recovery	Updated IT Disaster Recovery Plan. A new plan is being developed for the new ITC data center. IT is evaluating other disaster recovery projects. IT is implementing virtual servers to enhance mobility and enable redundant placement in remote locations. IT is also procuring new data storage resources that can be distributed to remote locations.
Technology enhancements for academic programs to support teaching and learning	Microsoft software provided to students. New IT Instructional Technology Support Manager hired. Remote student lab system implemented.
Information Technology building	Construction on schedule for Dec. 2008 completion.
Lighting and emergency telephones team	Worked with Team to identify telephone needs/ locations and implement installation of emergency phones.
Audiovisual equipment and instructional technology	IT hired Instructional Technology Support Manager. Formed institution-wide oversight committee.
Support Outreach and support services for off-campus students	Remote access computing lab implemented. Enhanced video conferencing services implemented to support distance learning. Microsoft Campus Agreement available to outreach students. Internet-based support technologies implemented by IT Help Desk to better support Outreach and other students.

Relevant Institutional Issues

Access: Technology is an enabler that extends the university's reach across Wyoming making university resources for learning and discovery accessible to all the citizens of the state and beyond. Technology helps make higher education available to everyone in Wyoming. The capacity of the Remote Student Computing Lab System has been designed to be scalable. The lab will be expanded as needed to meet the growing demand for computing access anytime and anywhere a UW user can connect to the Internet.

Excellence: The new Information Technology Center will support an advanced data infrastructure that keeps information flowing and meets the increasing expectations of the university community for technology capacity, availability, reliability, access and quality service. The ITC location is highly accessible and near the core campus giving students, faculty, and staff easy access to direct technology services, training support, and a future IT store. A critical component of the university's technology infrastructure is Information Technology's new ITC data center that will house the various computers which provide the university's essential technology services, data storage and backup for all UW's central computing systems. These functions are vital not only to the day-to-day operations of the University, but

to those of the State of Wyoming, whose data are also backed-up daily to the servers in the University's central machine room.

Leadership: Improvements and investments made in UW's computing infrastructure and data connectivity over the past few years place the University of Wyoming on a technology level with many of the best universities in the nation and the world. The introduction of new technology tools, upgrades of systems and equipment, and expansion of services with Internet technologies provide the university with flexibility to be more responsive, through technology, to the needs of its students, staff, faculty and the residents of Wyoming.

ACTION ITEMS

Action Items Continuing from 2005-2010 Plan

1. Protect privacy and personal data
2. Notification and change management
3. Strengthen IT Help Desk services
4. Strengthen relationships with other UW technology groups
5. Expand instructional technology and classroom support
6. Support Outreach
7. Provide security awareness and training
8. Technology planning and support for research needs
9. Information Technology data center development
10. Continued focus on communication

New Major IT Action Items

11. Assist NCAR in connecting their planned Cheyenne facility to the BiSON data ring
12. Support growth of computational sciences at UW
13. For geographic redundancy, separate UW's local campus connection to the BiSON data ring to two different connections
14. Migrate central computer operations to the new ITC data center
15. Upgrade student and faculty/staff email systems to Exchange 2007 and provided redundancy for faculty/staff email system. Increase data storage quotas for email.
16. Migrate server architecture to virtual technologies in order to enhance reliability and business continuity
17. Upgrade data network to continue to maintain high performance networking with enhanced security and reliability
18. Implement new/expanded data storage and backup systems
19. Update IT's Disaster Recovery Plan for the new ITC and test the plan
20. Continue growth and expansion of remote student lab system
21. Enhance and improve central data servers including WWW servers, PeopleSoft servers, Banner and Luminis servers, and other central academic and administrative servers

22. Continue to integrate telephony and computing, including additional unified communications expansion
23. Telephone system PBX upgrades
24. Implement a Hathaway Scholarship tracking module for Banner
25. Upgrade the Banner student information system and related components
26. Implement self-service functionality in PeopleSoft Financials and HRMS
27. Expand application support offerings to campus
28. Expand technology process improvement offerings
29. Expand IT Computer Training Program
30. Strengthen IT Web Presence
31. Develop and implement business plan for ITC student store
32. Prepare new ITC Data Center for Tier II operations
33. Work with WTBC staff to enhance WTBC's data center infrastructure

Implementation

Over the past five years, the use of technology has become more and more pervasive in UW's teaching, learning and research environments. Technological innovations are constantly changing the way we learn, teach, research and communicate. As the University's outreach grows, it is important we broaden our vision to include students residing both across and outside of Wyoming. Technology now plays a major role in the social activity of our students residing on campus. We must recognize that role in the services we provide. IT must anticipate and be flexible in meeting the changing needs of our users and of the University, collaborating and partnering with others to meet institutional goals.

Technology's implementation, maintenance, and support are capital and resource intensive. There is no way around it: technology is expensive. Because of the University's growing need for technology and the increasing expectations of our customers, maintaining funding will continue to be one of our most important items.

The Division of Information Technology's major challenges for the next five years are consistent with those of other higher education institutions and similar to the challenges we have faced in the last five years, primarily:

1. Managing the rapid growth and changes in technology.
2. Managing UW's growing dependency on technology and meeting customers' increasing expectations of capacity, availability, reliability, access and support.
3. Maintaining funding for infrastructure and for current and expanded services and support.

Technology changes rapidly. It's difficult to say what the next two years will bring let alone the next five years. Many of the action items listed above are planned to be addressed in the first one or two years of this planning cycle. Since technology and needs change quickly, the process of moving action items forward for implementation will always include the review of alternatives.