PROGRESS REPORT on ACTION PLAN FOR 2010-2012

March 30, 2012

2011/2012 Technology Council

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Tech Plan 2015 - IT Action Plan 2010-12

Tech Plan 2015

Executive Summary

Vision. Technology is used by faculty, staff and students to enhance learning, support the preservation, creation and transmission of knowledge, and, support institutional management functions.

Purpose The purpose of the technology plan is to guide the ongoing development and evolution of technology in support of the university’s mission and strategic directions. Technology planning is a collaborative effort to ensure that resources are used wisely to achieve equitable access to information technology for the good of the whole university community. Beyond equitable access, the technology plan should be aligned with university strategic directions.

Process The Technology Council is responsible for developing the plan with input from all constituencies and for monitoring annual progress. A five year planning horizon has been effective for setting strategic directions and managing change to minimize disruption. The five year IT strategic plan is complemented by annual IT action plans prepared by the IS Division.

Guiding Principles: UW-Green Bay is committed to adopting common tools that ensure resources are used wisely to achieve equitable access to information technology for all students, faculty and staff. The University is committed to safeguarding all personally identifiable information we obtain about individuals. Whether computer applications are hosted on campus or hosted externally, the data must be secure from unauthorized access. A central core database managed by data custodians ensures data integrity, data security and protection of privacy. When considering acquisition or implementation of a new technology the university evaluates the benefits in relation to the total cost of ownership. Technology should be used to reduce costs and improve services wherever possible. When considering acquisition or implementation of new technology it is also important to evaluate the carbon impact on the campus. Technologies that reduce energy consumption and conserve resources should be deployed whenever possible.

Tech Plan 2015: The objectives for Tech Plan 2015 were developed using information gathered from the faculty, staff and students, and researching technology trends in higher education. The objectives have been organized under four broad themes:

- Enhancing learning - supporting the core educational mission of the university through the use of technology
- Keeping up - maintaining the UWGB technology environment and keeping up with advancing technology in higher education to remain competitive.
- Staying Safe - maintaining a safe and secure technology environment for students, faculty and staff to engage in their studies and work.
- Going Green - follows the lead of the university in its efforts to be more environmentally respectful and energy efficient and to use resources wisely.
Progress on IT Action Plan for 2010-2012

I. Enhancing Learning

This theme focuses on supporting the core educational mission of the university through the use of technology.

Objective 1.1: Provide faculty development opportunities for implementing technology in the classroom/curriculum that is adaptive to student learning styles (e.g. video, online discussion, group collaboration, text messaging, simulations and games, social networking, etc.)

**Result:** The LTC provided numerous workshops on new tools such as lecture capture, web-conferencing, and new D2L tools such as checklists and rubrics. The LTC promotes the use of lecture capture, clickers, wikis, Second Life/virtual worlds and educational games, such as “Peacemaker.”

Objective 1.2: Convert additional classrooms to full technology installations to support the growing use of technology for teaching.

**Result:** New instructional technology has been installed in remodeled lecture room Rose Hall 250. The Wood Hall remodeling project has been completed with full technology in all of the Wood Hall classrooms. Each classroom is equipped with a computer, video projector, hi-resolution document camera, Blu-Ray/DVD/VCR player, and a confidence monitor. Equipment removed from Wood Hall has been used to create partial technology installations (PC, projector, screen, DVD/VCR, speakers, document camera connection) in four rooms previously served with portable equipment. Those rooms are ES 302, 310, 320 and TH 312. During the summer of 2011 T.E.A.M upgraded thirteen classrooms and replaced twelve projectors. Lab Mod Funding was approved for technology in all eight of the art studios—70” flatscreen monitors were installed in four studios over the semester break, and the other four will be completed at the end of spring semester 2012.

Objective 1.3: Improve the reliability and usability of classroom technology by standardizing instructional technology installations/interfaces to improve ease of use and support.

**Result:** TEAM has implemented Exton Global Viewer Enterprise application to improve ease of use for faculty and reliability of classroom technology.

Objective 1.4: Assist faculty in using technology tools to detect plagiarism.

**Result:** During spring 2011 the LITC conducted a Qualtrics survey to better understand the scope of plagiarism at UWGB and to solicit ideas for addressing plagiarism. During summer 2011 UWGB secured a campus-wide license for TurnItIn software and provided training for faculty in fall 2011. The Cofrin Library staff used the results of the survey to develop an educational website for students to help them better understand what is appropriate and what would constitute plagiarism. The web site includes information on how to avoid plagiarism and properly cite sources. There are faculty resources, such as TurnItIn and a quiz that faculty can direct their students to take in order to test their
knowledge of plagiarism. The Library has created a “one-stop shop” to support academic integrity.

Objective 1.5: Provide education on ethics of copyright and fair use.

**Result:** There is a group of people, from across the campus, working on copyright issues. The goal of the group is to make it easier for faculty to determine if something can be claimed as Fair Use.

Objective 1.6: Provide support for the use of electronic portfolios in the curriculum.

**Result:** The LTC and Adult Degree Program worked together to provide workshops and support for D2L ePortfolio including program-wide implementation for Adult Degree Programs and other individual courses.

Objective 1.7: Support faculty experimentation with instructional technology inside and outside the classroom environment, including delivering instruction to mobile devices.

**Result:** CIT has created an iPad users group to enhance communication with the current iPad users and has created a best practices user guide that is now available on eHelp. CIT and the LTC periodically offer iPad workshops/discussion sessions and have created web resources for iPad/tablet/mobile applications for teaching and learning.

BlendEd courses are currently offered by Adult Access and supported by Media Services. These courses combine online and face to face components using existing distance education technology to connect four sites: UW-Green Bay, Wausau, Rhinelander, and Appleton. These courses, held on Saturdays during the semester, allow all four sites to interact “live” with the instructor.

The Library started an embedded librarian service last year with the Adult Degree program. Using D2L librarians are available for students to ask research questions and to get the research support they need without coming to campus. Student feedback was very positive. This year the service was expanded to include on-campus courses as well as Adult Degree: eight courses in fall 2011 and 16 courses in spring 2012.

In support of teaching and learning objectives UWGB acquired licenses for several instructional software packages: TurnItIn for plagiarism detection; Blackboard Collaborate synchronous tool for online courses and web conferencing; MediaSite/Camtasia for lecture capture, and the D2L ePortfolio. The LTC provides training for these new technologies throughout the academic year. In addition, the LTC explored mobile learning as a subject for a Digital Humanities startup grant.

Objective 1.10: Expand lecture capture technology to support teaching and program delivery.

**Result:** We have moved from the pilot phase of lecture capture to providing ongoing support for this technology. The LTC provides workshops for faculty and managed a project to convert four classrooms to MediaSite classrooms in time for spring semester and added Camtasia Relay software to 10 classrooms. During spring semester 2012 twenty-two faculty are using lecture capture technology in 44 courses. More faculty are interested in using this technology to enhance their face-to-face courses and for online
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courses. The number of classrooms equipped with lecture capture technology will need to grow to accommodate faculty teaching methodology.

Objective 1.11 Explore quality control, standards and best practices for online courses using Quality Matters as a rubric.

**Result:** CATL and the LTC collaborated to develop an Online Teaching Fellows program: a blended workshop for the improvement of online course design based on the QM rubric standards. It was a competitive process in which faculty submitted proposals; five were selected to participate in the first fellowship program for spring 2012.

Objective 1.12 Increase the quantity, quality and scope of digital video and audio equipment available to faculty and students and provide assistance in digitizing content (text, music, video, images) for curricular purposes.

**Result:** Through the use of student technology fees, Media Services has acquired updated video and audio recording equipment which is available to students for check-out. (moved to Library January 2012) With this equipment, along with the editing facilities available in Media and in the General Access Lab specialty rooms, students can create video and audio material for their class work. Further, Media Services collaborates with the Learning Technology Center to support the use of video and audio material by faculty and instructional staff in the classroom. UWGB continues to participate in the UW System pilot of Kaltura rich media hosting platform.

Objective 1.13 Develop model for a Learning Commons on campus.

**Result:** This objective has been placed on hold pending funding for Cofrin Library renovation.

Objective 1.15 Use web based conferencing to facilitate online meetings, student/faculty/staff interactions and collaboration among work groups.

**Result:** Through a collaborative effort the UW signed a three year license agreement in summer 2012 for instructional web conferencing software called Blackboard Collaborate that can also support administrative web conferencing. This software is integrated within D2L which makes it very easy for faculty and students to have online, real-time lectures and discussion. The LTC has sponsored workshops and discussion sessions of best practices for using this software led by senior faculty. It is a popular tool. The Tutoring Center is piloting this software for tutoring students at a distance.

Objective 1.16 Explore a laptop initiative.

**Result:** In spring 2010 the Technology Council discussed the idea of implementing a laptop initiative in which students would be required to own a laptop and bring it to class. Most members questioned why we would be doing this when over 80% of students report that they already have a laptop. Most campuses that have laptop programs continue to support computer laps on campus because of the extensive array of curricular software being used. The Technology Council concluded that the current UWGB approach is cost effective for the university and that no further exploration is needed.
II. Keeping up: Maintaining and enhancing usability of current systems

Keeping technology up-to-date is a high priority of the university. The following objectives focus on technical upgrades and enhancements that either save people time, improve access or improve usability. This section also includes objectives that align our technology development with trends in higher education to remain competitive.

Objective 2.1: Maintain 2-3 year upgrade cycle for desktop software.

**Result:** The User Support team completed the upgrade to Windows 7 and Office 2010 and there were very few problems encountered. This upgrade has nearly eliminated the malware infections that had become problematic during the past year, which had affected staff productivity across campus. A new configuration was created for rollout to Macintosh computers this summer including Snow Leopard, Office 2011 (with a Mac version of Outlook), and local profiles. All faculty staff workstations were upgraded along with all computer labs in time for the start of the fall semester.

Objective 2.2: Maintain 3-4 year replacement cycle for desktop hardware.

**Result:** The annual replacement planning for desktops and servers is underway. Notices regarding computer replacements were sent out to program assistants in January. Orders will be placed in spring 2012 and new computers rolled out to campus during the summer 2012.

Objective 2.3: Maintain classroom equipment, including repair or replacement of failing and outdated equipment, as well as evaluating new classroom technology.

**Result:** see item 1.2 for upgrades. Media Services is working with the LITC to identify unmet needs for additional classroom technology.

Objective 2.5: Expand and upgrade wireless data networking technology

**Result:** The wired and wireless equipment for Residence Life installation was completed in July, Rose and Wood Halls in August, and MAC Hall was completed in September. Wired and wireless installations in Studio Arts, Theatre Hall, Laboratory Sciences, and Environmental Sciences were completed by the end of December. Network installations in Instructional Services, Kress Event Center, and Cofrin Library were completed by the end of March, 2012. We are on schedule to complete full campus wireless installation by the end of May, 2012. Special wireless networks for ticket scanning at the Kress Event Center and for door security systems have been installed. The Aruba Airwave Management Platform (AMP) tool was implemented in August, 2011 and upgraded in January, 2012 to manage the wireless network and portions of the wired network. In March, 2012 network staff have been working to locate and shutdown rogue wireless access points in the Residence Life buildings to improve wireless service for all students.

A project was completed in March to improve cellular reception on the lower levels of the Kress Event Center. Athletics provided funding for the installation of a cell phone booster system. Researched and installed by TEAM, this antenna and amplifier system
provided increased signal strength for all mobile carriers in the building. Initial testing and user feedback has been positive.

Objective 2.7: Expand the virtual student center to include customer relations management software (Talisma.)

Result: The Talisma CRM project has been underway since summer 2010 and went live in May, 2011 for undergraduate admissions and Adult Degree. This software assists with recruitment of both traditional and non-traditional students and will support retention goals. Staff from Student Affairs and Information Services will be attending the annual CRM conference to learn more about functionality that can support recruitment and retention goals. The MIS team continues to provide project management and technical support for the CRM as well as troubleshooting problems, updates to web forms and data views, resolving data issues and leading and coordinating deferred CRM related projects such as the Prospect File Import along with the application of hot fix updates. Currently, the MIS team and the CRM Users Group are researching the CRM Web Client and developing plans to automate Event Management.

Objective 2.8: Participate in UW wide research discovery pilots and assist in recommending a solution for an integrated search interface with google-like ease.

Result: As part of the Council for University of Wisconsin Libraries (CUWL) the library participated in a trial of the resource discovery tool WorldCat Local and tested the usability of the UW Forward search engine. CUWL has submitted a funding request to the UW Common Systems Group for a resource discovery tool for all UW libraries. The project has been approved for up to $300,000.

Objective 2.13: Implement Microsoft’s SCCM as a Windows desktop management and reporting tool for imaging, updates, inventory, and application virtualization.

Result: Microsoft SCCM for Windows desktop management has been expanded for imaging, application and driver updates which improves services to the users and reduces manual updates.

Objective 2.14: Evaluate VOIP contract for potential cost savings and telephone service improvement.

Result: The State (DOA) VOIP contract has been reviewed and, not surprisingly, costs the same as the current telephone system. To migrate to VOIP would be very expensive in terms of one-time costs to upgrade the telephone devices and there would be no cost savings on telephone line charges. At this point in time the State has not provided financial incentives or encouragement to migrate from our current telephone system.
III. Staying Safe

The third theme focuses on maintaining a safe and secure technology environment for students, faculty and staff to engage in their studies and work.

Objective 3.1: Maintain currency on all university core and administrative software applications.

**Result:** Server configuration and setups were completed to facilitate testing of the new release of Xythos (used in the GBShare application), Lab Stats for lab workstation usage tracking and new Mediasite and Camtasia Relay servers needed for lecture capture. CIT staff tested the Microsoft Forefront anti-virus package for campus PC workstations and servers in November and December 2011. Forefront was installed campus wide in January 2012 and has now replaced the McAfee server and desktop anti-virus package that the campus has used for more than ten years. The deployment of Forefront will reduce our annual costs for licensing. The HP Insight Manager application was implemented during the summer for monitoring of the hardware health of HP servers and storage nodes.

The MIS team continues to provide project management and business analysis to the Certain-Events Pro projects for the Division of Outreach and Adult Degree. All areas were successfully converted to Certain-Events Pro with the conversion of reports as the remaining task. We found out that the Certain-Events Pro product will not be enhanced so we will be working with Outreach to find a new application and/or solution.

The MIS team will start planning for an upgrade to Peoplesoft Peopletools 8.52 for the Student Information System (SIS) this summer. The MIS team along with Residence Life is testing an upgrade to the RMS Housing application and upgrades to the Persona Door Access application as well as working with UserSupport to upgrade the GBShare Xythos application, servers and databases.

Recently completed MIS projects were a Student Verification/Emergency Unlock Code application for Housing, SAP and ISIR edit changes for Financial Aid, Residence Life Web Design and web application changes, repeat course tracking for Financial Aid, advanced registration submission to National Clearinghouse, new distribution lists for SBBA students and Nutritional Science emphasis students, changes to the student discontinuation program, updates to security for email changes in SIS, Voter ID verification and allowing Admissions to view housing data in SIS. Current MIS projects include updates to the GL interface, improvements to SIS credit card processing, a new package tracking application for Residence Life and data extracts for the new HIMT program.

Objective 3.2: Maintain university network, server hardware and software.

**Result:** The network will be updated as part of the “Academic Buildings and Residence Life Network Upgrade Proposal.” We have updated two Macintosh servers that are used to administer all campus Mac workstations. The Linux server for Computer Science was
updated during the fall semester. The Raiser’s Edge server and software was updated in December. The capacity of the storage area network has been expanded by four terabytes to bring central storage capacity to sixteen terabytes. This will provide for approximately eighteen months of growth in storage. All storage area network hardware was upgraded to the latest firmware and software versions. A CIT staff member received training for VMWare V5.0 which the hypervisor we use for our virtualized servers. Experience in VMWare V5.0 was shared between the server/storage staff members and the virtualized test server/storage lab was upgraded to VMWare V5.0 and SAN/IQ V9.5. This testing laid the groundwork for the upgrade of the production VMWare server environment that was completed over winter break in January, 2012. ILO (Integrated Lights Out) functionality and the latest firmware updates were applied to all hardware servers. CIT staff are researching network and server hardware alternatives for the virtualized server replacement that will occur in summer, 2012. The 2012 version of the Backup Exec software package has been implemented to improve the backup/restore capabilities for all campus servers and network storage.

Server and network staff have been meeting regularly during the fall to look at alternatives to improve the resiliency and failover capabilities for the network, key servers, and critical network services that support domain account, domain IP address, file, and web servers. Additional testing will start in the winter and spring months and changes will be implemented over summer, 2012 to improve server resilience. To improve resilience at the campus network firewall, two new Checkpoint firewalls were researched, configured, ordered, and installed by the end of March, 2012. To prepare for these new firewalls and an expected change in how bandwidth can be managed at the firewall, bandwidth controls at the firewall were reduced at Thanksgiving. This enabled CIT staff to assess their firewall bandwidth control on bandwidth consumption and frequency of infringement notices.

UW-Green Bay has become a member of the Educause Incommon Federation consortium and their digital certificate service. Membership in this consortium will reduce the annual cost of server digital certificates and will allow us to implement federated services with other higher education institutions when we chose to do so.

A one hour information security awareness presentation around protecting your home and office computer has been prepared and delivered to approximately fifty University employees to date.

CIT staff worked with departments and campus legal staff to ensure that several University domain names were reserved and blocked from use in the launch of the new Internet .xxx top level domain name.

Objective 3.4: Implement Person Registry and Identity Management systems
Result: Completed summer 2010
Objective 3.7: Upgrade backbone and ResNet on a 5 year cycle.

Result: The wired and wireless equipment for Residence Life installation was completed in July Rose and Wood Halls in August, and MAC Hall was completed in September. Wired and wireless installations in Studio Arts, Theatre Hall, Laboratory Sciences, and Environmental Sciences were completed by the end of December. Full installation in Instructional Services, Kress Event Center, and Cofrin Library were completed by the end of March, 2012. We are on schedule to complete full campus wireless installation by the end of May, 2012. Special wireless networks for ticket scanning at the Kress Event Center and for door security systems will be installed in Wood Hall, Cofrin Library, and the Shorewood Golf Course. The Aruba Airwave Management Platform (AMP) management tool was implemented in August, 2011 and upgraded in January, 2012 to manage the wireless network and portions of the wired network. In March, 2012 network staff have been working to locate and shutdown rogue wireless access points in the Residence Life buildings to improve wireless service for all students. CIT staff have been researching alternatives for upgrade of key server and backbone network connections to 10 gigabit Ethernet. This will improve bandwidth and performance between servers across backbone switches.

Objective 3.9: Secure space and facility to serve as a redundant data center in the event that the primary data center is damaged or destroyed.

Result: A secure space for back-up on-campus data center was identified in Mary Ann Cofrin Hall. This room has had multi-mode fiber installed to it to allow network connectivity with the primary data center in the Instructional Services building. A network switch has been installed in this room and a group of redundant servers, storage area network equipment, and backup storage servers has been relocated to this location. Multi-mode fiber has also been installed from the Mary Ann Cofrin building to the University Union to facilitate partial operation of the campus network from Mary Ann Cofrin Hall in the event that the primary data-center was non-operational.

An agreement for co-location of disaster recovery hardware with St. Norbert College was developed over the summer and was signed off by both parties. The implementation of co-located disaster recovery servers and storage equipment will begin in 2012. An agreement for optical fiber exchange between St. Norbert College, Brown County, and the City of Green Bay was completed. This will enable fiber circuits to be implemented for secure access by UWGB Public Safety staff to Brown County provided record services, to enable the co-location of UWGB disaster recovery hardware at St. Norbert College, and to improve WiscNet backbone connections from UWGB to Madison. CIT staff continues to work with the staff of WiscNet and Merit (Wisconsin and Michigan educational network providers) to coordinate installation of fiber from the upper peninsula of Michigan to UW-Green Bay and UW-Superior.
IV. Going Green

The university has identified “Going Green” as a high priority and has engaged in efforts to be more environmentally respectful and energy efficient. The IS Division has already made strides in implementing Green IT. Throughout the university workstations switch into a low power sleep state when not in use; CRT monitors have been replaced with LCD monitors; computers are purchased with high efficiency power supplies; software installations are done during off peak hours at lower rates. In the data center a successful virtualization project has reduced the number of physical servers from 80 to 44 and the data center temperature has been increased from 68 to 72 degrees. These and other efforts have already reduced power consumption by 25 percent. There is more than can be done. The following objectives will help support the university’s goal of Going Green.

Objective 4.1: Continue virtualization of servers and data storage systems to reduce energy consumption in data center.

Result: The VMWare virtualization server environment has been upgraded to version 5.0 to stay up with the latest features for our virtualized server environment. Currently there are 77 virtualized servers running on 6 physical servers.

Objective 4.3: Develop best practices for reducing printing and toner consumption

Result: In support of Green IT we created a hi-tech conference room and have begun implementation of GreenPrint technology to reduce printing across campus. Based on the results of a pilot we have migrated to remanufactured toners and 100% recycled paper. Users are being encouraged replace desktop printers in favor of more efficient departmental printers and multi-function devices. Lab printers in the General Access and Library labs are now powered off at night to further reduce power consumption.

Objective 4.4: Implement Web content management system to support electronic forms and workflow.

Result: Web Services continues to migrate academic program websites into the mobile-friendly global template and is beginning to transition these sites into the campus CMS, CommonSpot. All academic program websites have been prioritized and nearly half of the 57 websites have been migrated to the global template. The new template features standardized navigation and enhanced program content.

Objective 4.5: Explore migration to e-textbook environment.

Result: In spring 2012 the Technology Council discussed the current and future use of e-Textbooks. The Controller and Bookstore Manager participated in the discussion. CourseSmart is a group of some of the major publishers of textbooks. Some of the UWGB faculty has already started using this service and so far $12,000 of e-textbooks have been purchased. Patrick Sorelle, Bookstore Manager, indicated the bookstore has been working with CourseSmart already and that they have been a consistent vendor of e-textbooks. The bookstore has been very proactive in letting students know about this option. Most of the e-textbooks are about half the price of the paper copy, but they can have many restrictions. The e-textbooks are only available for the semester, so the student has nothing after the course is over. The issue of dropping a course and not being
able to get a refund is also a problem. It is also a problem in that you cannot load it on more than one PC, but by and large the students like the convenience of the e-textbooks. No action plan has been recommended; e-textbooks will be monitored periodically.

Objective 4.7: Increase the number of hi-tech conference/meeting rooms to encourage paperless meetings.

Result: CL 125 has been converted to a hi-tech conference room. The Library has 10 laptops for use in the conference room. The Library also added 6 iPads for check out in the library. Two conference rooms each in Wood Hall and Rose Hall were equipped with screens and projection during the 2011 remodeling project. Media Services is working with the Austin E. Cofrin School of Business to similarly equip their conference room.