

# WESTERN ILLINOIS UNIVERSITY

## BOARD OF TRUSTEES

September 24, 2010

### Report 10.9/7 Annual Technology Strategic Plan Update

In June 2007, the Western Illinois University Board of Trustees unanimously approved the five-year *Institutional Strategic Plan for Technology at Western Illinois University* with the understanding that the Board would receive progress reports on the status of the *Plan*. This report, the third in its series, shows that the campus community has been very successful in implementing the *Plan*'s goals and priorities.

The last *Update* showed that of the 153 measurable actions and sub actions, 94 (61 percent) have been completed or are ongoing initiatives, 41 (27 percent) are in progress, and only 18 (12 percent) have not been started one year after implementation of the *Plan*. This *Update* shows that of the measurable actions and sub actions, 110 (72 percent) have been completed or are ongoing initiatives, 40 (26 percent) are in progress, and only three (two percent) have not been started

Successful implementation of the *Institutional Strategic Plan for Technology* continues to bring many advances to the University. A sampling of university accomplishments since last year's *Update* includes:

- Supporting high-speed, reliable and secure voice, video, and data networks for approximately 10,000 campus users. This includes daily operations, maintenance, support, and security of the mainframe, phones, e-mail, servers, labs, and networks. Over 300 devices and servers had an "uptime rate" of 99.9 percent. Each day Western receives 1.5 million emails, over a million web hits, and 1.4 terabits of data are transmitted, with end-users engaged in 170,000 mainframe transactions, 31,000 minutes of voice calls, and 115,000 minutes of lab computer usage.
- Increasing bandwidth on the Macomb Campus from 200 Megabits (Mb) to 250 Mb.
- Launching redesigned Websites for the Macomb and Quad Cities Campuses, supported by a new content management system for ease of updating and web 2.0 functionalities.
- Piloting a Voice Over Internet Protocol System in departments (University Technology Support Center and WQPT) and a building (Western Illinois University-Quad Cities 60<sup>th</sup> Street Campus), required use of mobile technologies in Nursing, and data warehouse/business intelligence solutions with University Housing and Dining Services.
- Deploying Western's Knowledgebase of frequently asked questions and training opportunities.
- Offering e-mentoring in Western Online and best practices in podcasting.
- Providing faculty and staff with low-cost software purchase opportunities through the Microsoft Home Use program and contractual agreement with JourneyEd software.
- Purchasing a perpetual license for Zimbra, enabling the potential of establishing lifetime e-mail addresses for alumni.
- Implementing online classroom scheduling for colleges and departments, and a technology change management process that is based on best practices and industry standards for increasing network reliability and increased communication with end users.

- Supporting online course development through coordinated support of the School of Distance Learning, International Studies and Outreach, the Center for Innovation in Teaching and Research, and the Center for the Application of Information Technologies.
- Completing a self-study with plans to strengthen distance learning, as part of the *Institutional Self Study for Re-Accreditation from the Higher Learning Commission-North Central Association of Colleges and Schools*.
- Supporting IntegrateIT wiki as a tool to provide faculty and staff with an interactive clearinghouse of current and emergent instructional technologies and methods being used in the classroom.
- Engaging in technology disaster recovery/business continuity scenarios and using the Quad Cities Campus as the off-site tape storage unit for the Macomb Campus.

The students, faculty, and staff of Western Illinois University will continue to experience service and technology enhancements. The following is a sampling of goals and priorities from the *Institutional Strategic Plan for Technology* that are currently in progress:

- Sustaining high-speed, reliable and secure video, voice and data networks, and aggressively pursuing external funding for lighting dark fiber between the two campuses of Western Illinois University.
- Continuing implementation of the Faculty Computer Upgrade Program, Electronic Classroom Program, Web accessibility initiatives, and priorities from campus-wide technology task forces and committees, including the Internet Technology Advisory Committee, Mobility Task Force, Technology Security Committee, University Technology Advisory Group, and Web Accessibility Committee.
- Following electronic classroom standards defined by faculty of the University Technology Advisory Group in newly renovated/opened facilities—Memorial Hall and Building One on the Quad Cities Riverfront Campus.
- Forming an institutional task force to make recommendations for student computing facilities, paper reduction, and sustainable funding practices on the Macomb Campus.
- Evaluating and implementing recommendations from the Higher Learning Commission’s on-site review team for strengthening distance learning.
- Modifying the current wireless environment to require authentication.
- Completing feasibility and finance study of Voice Over Internet Protocol migration for the Macomb Campus and submitting recommendations to the President’s Cabinet.
- Introducing campus intranet services by deploying a faculty/staff campus portal and designing a student portal.
- Extending pilot testing of data warehouses and business intelligence solutions to Admissions Offices on the Macomb and Quad Cities Campuses.
- Participating in capital technology planning for new construction and special technology initiatives within our host communities and regions. The latter includes partnership with a local provider to provide fixed and fully mobile Internet access to Macomb and McDonough County.

The pages that follow display the status of goals, actions, and priorities for the *Institutional Strategic Plan for Technology*. It is a strong tribute to the technologists of Western Illinois University for simultaneously and successfully supporting daily operations and strategic planning. The benefactors are the students, faculty, and staff of our two campuses.

**The Status of Goals, Actions, and Priorities for the Institutional Strategic Plan for Technology**

**I. Increase Communication**

Advancing the technological goals and priorities of Western Illinois University will require enhanced communication. This includes increased user feedback; a standardized e-mail, calendaring, and groupware solution; an enhanced University Web presence and developed campus portal; expanded data systems; and articulation of technology policies, procedures, accomplishments, and challenges. The success of this *Strategic Plan* is predicated on two-way communication and collaboration between University students, faculty, and staff.

**A. User Feedback**

<u>Action</u>	<u>Priority</u>	<u>Completion</u>	<u>Status</u>
1. Develop and implement a public institutional technology planning and priority-setting process that includes an established structure and process for reporting to the Macomb and Quad Cities campuses on technology plans, accomplishments, and challenges. ( <i>Assistant to the President</i> ). <b>The Institutional Strategic Plan for Technology was endorsed by all campus governance groups in Macomb and Quad Cities and unanimously approved by the Western Illinois University Board of Trustees. The Vice President of Quad Cities, Planning, and Technology and Assistant Vice President for University Technology meet with the Colleges, University Libraries, and Western Illinois University-Quad Cities twice a year to give status reports and gain campus feedback on priorities. A second method for gaining perspective is University Technology's use of campus-wide committees and task forces. This includes the University Technology Advisory Group, Internet Technology Advisory Committee, Technology Security Committee, and Web Accessibility Committee to name just a few. Priorities and plans are also shared/discussed as described in item #2 (below).</b>	Phase I	Short-Term	<b>Ongoing</b>
2. Continue to use annual consolidated reports to discuss departmental, unit, and college technology plans, accomplishments, and challenges. Continue to communicate these reports to faculty and staff, and post the technology-related material on the newly developing University Technology Web site. ( <i>Vice Presidents; Deans; Department Chairs; Planning, Budget and Institutional Research</i> ). <b>Annual consolidated reports with technology plans for colleges, departments, and vice president units are presented to the campus community each spring by the vice presidents and areas reporting to the president. Summaries of these presentations and supporting materials are available at <a href="http://wiu.edu/UniversityPlanning/strategicplanning/index.php">wiu.edu/UniversityPlanning/strategicplanning/index.php</a></b>	Phase I	Short-Term	<b>Ongoing</b>
3. A list of technology and web contacts for each division, college, and department should be formed and used as the base to communicate and coordinate technology actions at the departmental and unit level. ( <i>President's Technology Advisory Users Group</i> ). <b>This is currently being updated for academic year 2010-2011 and will be posted on the University Technology Website.</b>	Phase I	Short-Term	<b>In Progress</b>
4. Investigate and implement enhancements to help desk and HEAT ticket communications. ( <i>University Computer Support Services, Electronic Student Services, University Information Management Systems</i> ). <b>A Task Force provided recommendations to the Vice President for Quad Cities, Planning and Technology. One</b>	Phase II	Short-Term	<b>Ongoing</b>

<p>recommendation was to move to a different tracking system. This action is on hold given state cash flow issues. However, there have been enhancements made to customer service in lieu of the aforementioned purchase. Specifically, the Support Center piloted a VOIP system. The system gives staff the ability to analyze efficiencies in terms of speed to answer, length of conversation, average queue time, abandonment rate, and call volume. Implementation of the new system and staff training in mind leaders software increased first contact resolution by 10 percent, placing Western above industry standards. Western's rate of first call resolution is 70 percent compared to an industry standard of 65 percent.</p>			
<p>5. Develop a University Technology Web site to contain essential technological information for end users. This includes, but is not limited to, Western Illinois University's:</p> <ul style="list-style-type: none"> <li>a. Technology offices and support.</li> <li>b. Technology committees and task forces.</li> <li>c. Technology policies and procedures.</li> <li>d. University Strategic Plan for Technology.</li> <li>e. Security planning and accomplishments.</li> <li>f. Feedback for technology projects currently in development.</li> <li>g. Technology calendar as previously described in this <i>Plan</i>.</li> <li>h. Technology communications as previously described in this <i>Plan</i>. (<i>Planning, Budget, and Institutional Research; University Relations</i>) <b>The University Technology Website contains all of the information stated above and is available at <a href="http://wiu.edu/Utech">wiu.edu/Utech</a></b></li> </ul>	Phase I	Short-Term	<b>Complete</b>
<p>6. Within the University Technology Web site, maintain and update daily a Web page (password-protected if needed) delineating abnormal status of the University's Internet connection; e-mail servers, Web server, other file and application servers. (<i>Electronic Student Services; University Computer Support Services; Planning, Budget and Institutional Research</i>) <b>Status of the University's network, online learning, and e-mail system is available from the University Technology Website.</b></p>	Phase I	Short-Term	<b>Complete</b>
<p>7. Continue to improve the frequency of communication between the providers of technology and end users. This includes:</p> <ul style="list-style-type: none"> <li>a. Announcing at least five working days in advance any nonemergency changes in software pushed to desktops. <b>This time frame is part of University Technology's new change management process. Based on a review of best practices at industry leaders, including the University of North Carolina-Greensboro, University of Texas, Ferris State University and the Institute of Electrical and Electronics Engineers, University Technology implemented a change management protocol for initiating computing changes. Additionally, University Technology only allows for emergency upgrades to the network and software two weeks before the end or start of the semester to avoid discontinuity in service.</b></li> <li>b. Providing network status updates. This will help users better understand functional vs. nonfunctional connectivity by reporting outages/slowdowns/server problems that affect</li> </ul>	Phase I	Short-Term	<p style="text-align: center;"><b>Ongoing</b></p> <p style="text-align: right;"><b>Complete</b></p>

<p>more than several individuals (e.g., publish reports on mail server problems during/immediately following the occurrence). <b>See Item #6.</b></p> <p>c. Updating individuals submitting service requests (HEAT tickets) not resolved within five working days on the status of the ticket. <b>Purchase of new software to achieve this functionality is currently on hold due to state cash flow issues. However, other enhancements described in Action #4 are intended to enhance customer service until a new system can be purchased.</b></p> <p>d. Posting answers to commonly asked technology support questions in a publicly accessible Web-based FAQ document. (<i>Electronic Student Services; University Computer Support Services; Planning, Budget, and Institutional Research</i>). <b>In academic year 2009-2010, University Technology implemented Western's Knowledgebase <a href="http://www.wiu.edu/kb/ss/">www.wiu.edu/kb/ss/</a> to answer FAQs and provide training opportunities.</b></p>			<p><b>In Progress</b></p> <p><b>Ongoing</b></p>
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**B. E-mail, Calendaring, and Groupware Solutions**

<u>Action</u>	<u>Priority</u>	<u>Completion</u>	<u>Status</u>
8. Create an institutional task force to provide the President's Cabinet with recommendations for the use of a single, fully functional e-mail and calendar client that integrates with personal communications devices and supports a single communications and calendaring platform at Western Illinois University. ( <i>President, President's Cabinet, E-Mail and Calendaring Task Force</i> ). <b>The Task Force completed its work in spring 2007.</b>	Phase I	Short-Term	<b>Complete</b>
9. Upon successful contract negotiation with the selected vendor for an e-mail, calendaring, and groupware client, form an institutional task force to develop an implementation and training plan for the new client. ( <i>President, President's Cabinet</i> ). <b>Zimbra has been fully implemented. Training on Zimbra is available on request from University Technology and from Western's Knowledgebase.</b>	Phase II	Short-Term	<b>Ongoing</b>
10. With the selection of a new e-mail, calendaring and groupware vendor:			
a. Create and implement a single directory services environment rather than the two separate environments that exist within University Computer Support Services and Electronic Student Services; ( <i>University Computer Support Services, Electronic Student Services</i> ). <b>The University now operates according to a single active directory.</b>	Phase II	Mid-Term	<b>Complete</b>
b. Increase e-mail inbox storage; and ( <i>University Computer Support Services, Electronic Student Services</i> ) <b>University Technology doubled Storage Area Network server space and now provides redundant back up. Additional space will be added as needed.</b>	Phase II	Short-Term	<b>Complete</b>
c. Establish lifetime e-mail addresses for University alumni. ( <i>Alumni Services, University Computer</i>	Phase III	Mid-Term	<b>Ongoing</b>

<i>Support Services</i> ). <b>University Technology purchased a perpetual license from Zimbra that offers the potential of establishing lifetime e-mail addresses for alumni.</b>			
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**C. Internet and Intranet (Portal)**

<u>Action</u>	<u>Priority</u>	<u>Completion</u>	<u>Status</u>
11. Complete the redesign of the University Web site, seek feedback from campus governance groups, and launch the site by January 1, 2007. ( <i>University Relations</i> ). <b>University Technology, in collaboration with the Internet Technology Advisory Committee, Web Accessibility Committee, and members of our campus communities, launched redesigned Macomb and Quad Cities Webpages in June and August 2010, respectively.</b>	Phase I	Short-Term	<b>Ongoing</b>
12. Demonstrate institutional compliance with Illinois Web Accessibility Standards as part of the Web site redesign. ( <i>University Relations, IBHE Web Accessibility Committee</i> ) <b>University Technology, Equal Opportunity and Access, and the Web Accessibility Committee are responsible for maintaining the University’s compliance with this Illinois Information Accessibility Act. This Act replaced Illinois Web Accessibility Standards.</b>	Phase II	Short-Term	<b>Ongoing</b>
13. Form an institutional task force to develop a Western Illinois University campus intranet (portal) to at minimum:	Phase II	Mid-Term	
a. Convert 3270 screens to truly web-developed screens. <b>This is an ongoing responsibility for Administrative Information Management Systems.</b>			<b>Ongoing</b>
b. Host a web-based degree audit system for the Macomb and Quad Cities campuses. <b>Administrative Information Management Systems and the Office of the University Registrar implemented a web-based degree audit system, uselect.</b>			<b>Complete</b>
c. Integrate changes in data administration. <b>A team from Administrative Information Management Systems and University Technology has begun to develop an institutional data dictionary. Data from University Housing and Dining Services and Admissions Offices in Macomb and the Quad Cities will be the first entries.</b>			<b>In Progress</b>
d. Evaluate continued use of STARS in the development and implementation of a campus portal. ( <i>President’s Technology Infrastructure Group</i> ). <b>University Technology and the Internet Technology Advisory Committee is leading development of a new campus portal that will include many applications, including use of STARS. A beta launch of the faculty/staff portal is planned for fall 2010. At the same time, student focus groups will be held to determine desired content in a new student portal that will be developed during academic year 2010-2011.</b>			<b>In Progress</b>

**D. Expanded Data and Systems**

<u>Action</u>	<u>Priority</u>	<u>Completion</u>	<u>Status</u>
14. Centralize document imaging across both Western Illinois University campuses. ( <i>Electronic Student Services, University Computer</i>	Phase I	Mid-Term	<b>In Progress</b>

<i>Support Services, Dean of University Libraries, Business Services).</i> <b>There are now just two document imaging processes used on campus: one for business applications and one for student service processes.</b>			
15. Continue to upgrade and expand, where appropriate, campus data systems (e.g., CS Gold, Beu Health Center, Web ID archive). ( <i>Electronic Student Services</i> ). <b>New software and identification cards were provided for both campuses to enable expansion of identification card services.</b>	Phase I	Ongoing	<b>Ongoing</b>
16. Evaluate open-source and commercial data-management packages for enhanced multi-campus functionality and capabilities in student, faculty, and staff information systems and in personnel, payroll, and purchasing systems. ( <i>President's Technology Infrastructure Group, Human Resources, Payroll, Purchasing, Business Services</i> ). <b>A team from Administrative Information Management Systems and University Technology is developing data warehouses and piloting business intelligence solutions with University Housing and Dining Services. The next area to test these functionalities is the Admissions Offices on the Macomb and Quad Cities campuses.</b>	Phase II	Mid-Term	<b>In Progress</b>
17. Investigate and evaluate online analytical processing (OLAP) tools for use by faculty and staff. ( <i>President's Technology Infrastructure Group</i> ). <b>The ability to utilize OLAP tools is a key consideration in the pilot testing described in item #16.</b>	Phase III	Mid-Term	<b>In Progress</b>

**E. Technology Policies, Procedures, and Reporting**

<u>Action</u>	<u>Priority</u>	<u>Completion</u>	<u>Status</u>
18. Following University approval processes, update all University computing policies and procedures (displayed below) and create new policies and procedures where appropriate. <b>The Chief Technology Security Officer has been charged with working with the Technology Security Committee to review all technology security policies and procedures and to present recommendations to the President's Cabinet in academic year 2010-2011.</b> <ol style="list-style-type: none"> <li>a. Campus Network Policy (last updated December 2001).</li> <li>b. University Computer Antivirus Policy (last updated April 2001).</li> <li>c. Policy on Computer Security (last updated March 2005).</li> <li>d. Policy on Western Illinois Computing Use (last updated August 1996). <b>Updated February 2007.</b></li> <li>e. Policy on E-Mail Usage and Political Activity (last updated July 2000).</li> <li>f. Web Privacy Policy (not currently an official University policy). (<i>President's Technology Infrastructure Group, Assistant to the President for Planning and Budget, Technology Security Committee, Vice Presidents, President</i>)</li> </ol>	Phase I	Ongoing	<p><b>In Progress</b></p> <p><b>In Progress</b></p> <p><b>In Progress</b></p> <p><b>Complete</b></p> <p><b>In Progress</b></p> <p><b>In Progress</b></p>

## II. Increase Support

Institutional technology is only as strong as the user support for students, faculty, staff, alumni, and guests of the University. Western Illinois University will continue to enhance user support. Increased support takes the form of providing enhanced communication with end users, which is the cornerstone of the all the recommendations in this *Strategic Plan*. For example, this *Plan* culminates in developing/implementing a support plan that exceeds the levels of support, communication, and responsiveness at peer institutions. Western Illinois University will become a national best practice model for others to follow.

As part of this emulation process, Western Illinois University will enhance student, faculty, and staff technological training. We will also assume leadership in providing information in alternative formats, allowing students to register online, and providing a staffed center for hardware and software support. These actions are in tandem with all other action items contained within this *Strategic Plan*.

<u>Action</u>	<u>Priority</u>	<u>Completion</u>	<u>Status</u>
19. Enhance technology support by establishing or increasing:			
a. Faculty training and support for classroom instruction. ( <i>Center for Innovation in Teaching and Research, Distance Learning Support Staff</i> ). <b>Technology Training for faculty is provided by the Center for Innovation in Teaching and Research (CITR). Topics include use of clickers, podcasting, and advanced Power Point applications.</b>	Phase I	Ongoing	<b>Ongoing</b>
b. Faculty training in synchronous distance education. (CODEC), pedagogy ( <i>Center for Innovation in Teaching and Research, Distance Learning Support Staff</i> ). <b>The School of Distance Learning, International Studies and Outreach, CITR, and the Center for the Application of Information Technologies (CAIT) provide training for all new courses to be delivered via distance education. CITR also provides ongoing professional development activities. Use of equipment is also reviewed in many colleges and departments. The College of Education and Human Services, for example, provides training for college faculty on the use of CODEC.</b>	Phase I	Ongoing	<b>Ongoing</b>
c. Training and support for faculty in the use of course management software for hybrid courses. ( <i>Center for Innovation in Teaching and Research, Distance Learning Support Staff</i> ). <b>The same processes are used as described in action #19b.</b>	Phase I	Ongoing	<b>Ongoing</b>
d. Regular training sessions for students, faculty, and staff on University-supported software. ( <i>Center for Innovation in Teaching and Research, University Information Management Systems, University Computer Support Services</i> ). <b>In addition to information presented in Actions #19a and #19b, Human Resources provides technology training on University-supported software. Sessions include different levels of training on Microsoft Word, Excel, Access, Power Point, and Publisher. Additional training information is available from Western's Knowledgebase.</b>	Phase I	Ongoing	<b>Ongoing</b>
e. Provide ResNet training sessions for students. ( <i>University Computer Support Services</i> ). <b>ResNet and Lab Managers provide training sessions to students. In addition, an informational brochure of technology uses was provided</b>	Phase I	Ongoing	<b>Ongoing</b>

<b>to all Macomb campus students as part of the fall 2010 move in process.</b>			
f. E-mentoring for faculty and teaching assistants. ( <i>Center for Innovation in Teaching and Research</i> ). <b>CITR offers online tutorials. Current topics include using Western Online, best practices in podcasting, and faculty time reporting.</b>	Phase II	Mid-Term	<b>Ongoing</b>
20. Implement <i>Illinois Web Accessibility Standards</i> . ( <i>Web Accessibility Committee</i> ). <b>See item #12.</b>	Phase I	Ongoing	<b>Ongoing</b>
21. Implement the statewide Course Articulation System that provides course transfer and matriculation information. ( <i>University Registrar, University Information Management Systems</i> ). <b>See Action #13b.</b>	Phase I	Mid-Term	<b>Complete</b>
22. Create a staffed center for software/hardware training ( <i>President, Provost, Center for Innovation in Teaching and Research, University Libraries</i> ). <b>Training regarding the application of software is provided by the Center for Innovation in Teaching and Research, Human Resources, and Quad Cities Technology. The uTech store is available to answer hardware questions, and was re-certified by Apple in spring 2010.</b>	Phase II	Mid-Term	<b>Ongoing</b>

### III. Improve Technologies

#### **A. For Students, Faculty, and Staff**

*Higher Values in Higher Education* commits Western Illinois University to providing excellence in all instructional, research, and service activities as we become the leading comprehensive/master's-granting institution in the United States. Clearly, technology is a tool that supports the vision and daily operation of students, faculty, and staff. Currently, the amount, type, and access to hardware and software at the University are all normally distributed. Institutional planning with clearly identified sources of revenue that extend well beyond end-of-year funding are needed to provide students, faculty, and staff with the technological tools necessary to complete educational mission and professional responsibilities. Strengthening technological resources and access begins with establishing/clarifying/planning budgetary responsibilities for technology at Western Illinois University.

<u>Action</u>	<u>Priority</u>	<u>Completion</u>	<u>Status</u>
23. Clarify University computing infrastructure (hardware and software) that will be centrally funded by the University and infrastructure that will be funded by vice presidential divisions, colleges, academic departments, and administrative units. ( <i>President; Vice Presidents; Assistant to the President for Planning, Budget and Institutional Research</i> ). <b>Central funding for the Electronic Classroom and Faculty Computer Upgrade Programs is currently on hold due to state cash flow issues. A Task Force will be formed in fall 2010 and charged with providing the President's Cabinet, through the Vice President for Quad Cities, Planning, and Technology, with developing a University plan for the future and funding of campus learning spaces (computing laboratories). A report is to be presented by the end of the fall semester. Likewise, the Provost's Office and University Technology have begun meeting to discuss sustainable funding practices for electronic classrooms.</b>	Phase I	Short-Term	<b>Ongoing</b>
24. Aligned with the goals of this <i>Institutional Strategic Plan for Technology</i> and as part of the University's annual planning and accomplishments presentations in the spring, establish and implement divisional, college, and departmental computing and	Phase I	Short-Term	<b>Ongoing</b>

instructional equipment plans, policies, and guidelines. ( <i>Vice Presidents, Deans, Chairs, Directors</i> ). <b>See item #2.</b>			
25. Involve faculty in hardware and software purchases and technology implementation planning to ensure that instructional needs are driving technology selection and use rather than technology driving instruction. ( <i>President; Vice Presidents; Assistant to the President for Planning, Budget, and Institutional Research; Deans; Chairs; Directors</i> ). <b>Faculty have been involved in the selection of institutional software (e.g., the new knowledge-based help system, WebCT Vista, Zimbra). Through the President's Technology Advisory Users Group faculty defined classroom technology standards as part of the Electronic Classroom Upgrade Program. Faculty in Computer Science, Manufacturing Engineering Technology, and Engineering are also pilot testing Windows 7 for the University; and Dr. Richard Carter is leading the faculty/staff selection process for a new course management system.</b>	Phase I	Short-Term	<b>Ongoing</b>
26. Ensure compatibility between hardware and software in classrooms, computer laboratories, and faculty and staff offices. ( <i>Deans, Chairs, President's Technology Infrastructure Group</i> ). <b>Standardized equipment is being purchased in the Electronic Classroom Upgrade Program and the Faculty and Staff Computer Upgrade Program. Technology consistency is also a guiding principle in Quad Cities Riverfront Campus planning and deployment.</b>	Phase I	Mid-Term	<b>Ongoing</b>

### **B. In Classrooms and Laboratories**

All Western Illinois University students and faculty must have equal access to classrooms, laboratories, and the corresponding hardware and software that provide the necessary technologies to support educational objectives. Therefore, the first step is to inventory the types of technology available in the classrooms and then develop/publish a scheduling system that allows convenient faculty access to classrooms that will simultaneously meet pedagogical and technological needs.

The academic excellence and educational opportunities provided by Western Illinois University faculty require increased and current technology. Western Illinois University will institutionally move to an all-electronic classroom solution. An interim approach to this migration to improved classrooms and laboratories will be to develop college standards for classrooms (recognizing that updating will require a multiyear approach applied consistently across the academic colleges and University Libraries) and convenient technology checkout programs for faculty and staff. Convenience also extends to enhanced technology and classroom support with increased sensitivity to the academic calendar.

The University also commits to continually evaluating and purchasing, where appropriate, new and emergent technologies that will advance the successful fulfillment of the University's academic mission and service operations.

<u>Action</u>	<u>Priority</u>	<u>Completion</u>	<u>Status</u>
27. Create and maintain an electronic inventory of technological equipment in all classrooms. ( <i>University Registrar, Colleges, Departments</i> ) <b>Staff from University Technology, University Registrar, colleges, departments, and Quad Cities Technology maintain an electronic inventory of all technological equipment in classrooms and laboratories on both campuses. Information on the University's electronic classrooms is available at <a href="http://www.wiu.edu/university_technology/eclassrooms.php">www.wiu.edu/university_technology/eclassrooms.php</a></b>	Phase I	Short-Term	<b>Ongoing</b>

28. Implement an automated room-scheduling system that allows colleges and departments to schedule classrooms electronically. <i>(University Registrar)</i> . <b>The Office of the University Registrar has implemented an automated classroom scheduling system.</b>	Phase I	Short-Term	<b>Complete</b>
29. In consultation with Deans, Department Chairs, and program faculty, develop and begin implementation of University plans for configuration of three general levels of electronic classrooms to meet basic, intermediate, and high-end needs. <b>The President's Technology Advisory Users Group developed standards for electronic classrooms. Through combined efforts of staff from Physical Plant, University Technology, Quad Cities Technology, and in collaboration with end users on both campuses, 42 of the University's 127 general instructional electronic classrooms (33.1 percent) have been upgraded. The most recent upgrade was to Knoblauch 231.</b> <ul style="list-style-type: none"> <li>• These plans should include instructions for Physical Plant installation of teaching stations and cabling, projection screens where needed, and electrical and network connections. <b>Physical Plant and University Technology have a service level agreement for installation of electronic classrooms in Macomb, and similar efforts are coordinated with Quad Cities Technology for renovations in Moline.</b></li> <li>• These plans should also include consideration for increased physical security of installed equipment. <i>(Deans, Departments, President's Technology Advisory Users Group, College Representatives, Physical Plant)</i>. <b>University Technology and the Technology Security Committee are updating the video surveillance policy for review by the President's Cabinet.</b></li> </ul>	Phase I	Short-Term	<b>In Progress</b>
30. Establish a laptop and other hardware checkout program (wireless laptop cart, data projectors, portable ELMOs, digital video cameras, and digital still cameras) for faculty and staff. <i>(Dean of University Libraries, Director of Special Projects, President's Technology Advisory Users Group, President's Technology Infrastructure Group)</i> . <b>University Libraries, the College of Education and Human Services, and Quad Cities Technology have checkout programs.</b>	Phase I	Mid-Term	<b>In Progress</b>
31. Implement a plan to transition all classrooms into electronic classrooms at:	Phase I	Short-Term	
a. Western Illinois University-Macomb. <i>(Provost, Deans, Chairs, Director of Special Projects, President's Technology Advisory Users Group)</i> . <b>The program is currently on hold due to state cash flow issues. When the program is re-established, University Technology will defer to Academic Affairs for project prioritization.</b>	Phase I	Long-Term	<b>In Progress</b>
b. Western Illinois University-Quad Cities for both 60 <sup>th</sup> Street and the newly developing Riverfront Campus. <i>(Provost, Deans, Chairs, Director of Special Projects, Quad Cities Users Group Technology Subcommittee)</i> <b>In addition to the information reported in action #29, electronic classroom planning is complete for Building One on the Western Illinois University-Quad Cities Riverfront Campus, and is in design for Phase II construction.</b>	Phase I	Long-Term	<b>In Progress</b>

<p>32. As defined by the academic community, the conversion of standardized electronic classrooms should use standardized equipment (projectors, visual presenters, speakers, video signal amplifiers, computers, etc.) and control panels in electronic classrooms, to the greatest extent possible, to facilitate easier support and repair of classrooms and to make it easier for users to enter an unfamiliar room and use the equipment. <i>(Director of Special Projects, President's Technology Advisory Users Group, Deans)</i>. <b>Specifications for technology in the classrooms were defined by the academic representatives on the President's Technology Advisory Users Group, and by Quad Cities faculty for Riverfront Campus.</b></p>	Phase I	Mid-Term	<b>Complete</b>
<p>33. Improve and centralize support of electronic classrooms and all computer laboratories. <i>(University Computer Support Services, Colleges, Departments)</i>. <b>A new Classroom Support Unit was created within University Technology to coordinate classroom support and to identify/correct technological problems in the classroom before they occur. Also, beginning in fall 2009, professional staff is now available to resolve technology issues during evening classes. This service enhancement is consistent with practice on the Quad Cities Campus.</b></p>	Phase I	Short-Term	<b>Complete</b>
<p>34. Implement a web-based technology calendar that identifies critical points in the academic calendar and priority periods for technological work (e.g., scheduling installation of hardware and software before the start of the academic semester) according to the following guiding principles:</p> <ul style="list-style-type: none"> <li>• Continue to institute upgrades and changes to equipment and software with respect for the academic calendar. Highest priority will be given to proactive scheduling between departments and technology units, allowing setup of classroom computers, teaching laboratory computers, and faculty office computers prior to the beginning of academic terms. <b>This is part of the new Change Management Process described in action #7a.</b></li> <li>• When instituting upgrades (e.g., operating systems, networking access, Office suite applications) academic departments and administrative units, not individual users, will be the units for upgrading to promote standardization and enhanced user support. <b>This scheduling model was used in the institutional migration to Zimbra, technology security enhancements, and will continue to be used.</b></li> <li>• Given the centrality to instruction of electronic classrooms and computer laboratories, no such facility should be out of commission more than 24 hours after a problem is reported to the extent that the situation is under control of Western Illinois University. <i>(University Computer Support Services, Electronic Student Services, President's Technology Advisory Users Group)</i>. <b>This is a guiding principle of University Technology's change management process described in action #7a.</b></li> </ul>	Phase I	Short-Term	<p style="text-align: center;"><b>Ongoing</b></p> <p style="text-align: center;"><b>Ongoing</b></p> <p style="text-align: center;"><b>Ongoing</b></p>
<p>35. Investigate security solutions (swipe card systems, video recording, etc.) to enable expanded computer laboratory hours of operation. <i>(President's Technology Infrastructure Group, Technology Security Committee)</i>. <b>An ID Card Task Force made recommendations for new equipment that could, given the availability of resources, be</b></p>	Phase II	Mid-Term	<b>Complete</b>

<b>purchased on both campuses to enable expanded computer laboratory hours of operation.</b>			
36. Investigate/implement new, emerging, and innovative technologies to support the academic mission of Western Illinois University. These include, but are not limited to, pod casting to wired and wireless devices, video on demand, clicker technology, and a multimedia room with global video conferencing capabilities. <i>(Faculty and Staff, Center for Innovation in Teaching and Research, President's Technology Infrastructure Group, President's Technology Advisory Users Group)</i> . <b>Faculty are podcasting on the Macomb and Quad Cities campuses, use clickers, and new smart board technologies are being piloted on the Quad Cities Campus.</b>	Phase II	Ongoing	<b>Ongoing</b>
37. Investigate the feasibility of requiring laptops for all Western Illinois University students. <i>(President's Technology Advisory Users Group, University Computer Support Services, Financial Aid, Center for Innovation in Teaching and Research)</i> . <b>Nursing and Broadcasting are pilot testing mobile computing initiatives.</b>	Phase II	Mid-Term	<b>In Progress</b>
38. Develop and implement centrally-operated, computer-based testing and assessment labs on both Macomb and Quad Cities campuses. <i>(Director of Non-Traditional Programs, University Computer Support Services)</i> . <b>Such facilities are available through the School of Distance Learning, International Studies and Outreach and Western Illinois University-Quad Cities (60<sup>th</sup> Street Campus and Rock Island Arsenal).</b>	Phase II	Mid-Term	<b>Ongoing</b>
39. Expand campus-wide site licenses. Potential high-need software includes Adobe/Macromedia, Dreamweaver, and Photoshop. <i>(Assistant to President, President's Technology Advisory Users Group, University Computer Support Services)</i> . <b>As part of the college-university technology support agreements, University Technology investigates software site licenses when requested by a member of the academic community. University Technology is currently exploring site licenses with Microsoft and Apple. The Microsoft Office Enterprise Suite is available for purchase of \$9.95 as a benefit of current licensing. Likewise, through partnership with Journey Ed, Western students, faculty, and staff can receive exceptional discounts on vast array of software and other offerings. Additional information is available at <a href="http://www.journeved.com">www.journeved.com</a>.</b>	Phase II	Ongoing	<b>Ongoing</b>

### **C. At University Libraries**

The University Libraries are committed to identifying, collecting, organizing, preserving, and providing access to information supporting the instructional programs of the University. The Libraries make available essential resources in each curricular field and participate in the education of their users. The Libraries also support the research and informational needs of students, faculty, staff, and people of the region. Technology and its enhancement, as demonstrated in the action items below, are critical to the mission and success of the Libraries.

<u>Action</u>	<u>Priority</u>	<u>Completion</u>	<u>Status</u>
40. Evaluate and enhance University Libraries' electronic and print resources in light of curricular needs of the University and statewide statistical collection norms. <i>(Provost, Dean of University Libraries)</i> . <b>In 2008-2009, library liaisons and administration conducted a major journal cancellation project and reevaluated library and departmental collection budgets. In 2009-2010 library liaisons continued to cancel journals and databases as part of the 3.5</b>	Phase I	Ongoing	<b>Ongoing</b>

<b>percent budget reduction due to the state's fiscal crisis.</b>			
41. Continue to explore and participate in external and internal cooperative arrangements that support the University's mission, expand the libraries' resources, and encourage intellectual and cultural development. <i>(Provost, Dean of University Libraries)</i> . <b>University Libraries continues to work with CODSULI and CARLI to expand access and delivery of information to library users anytime and anywhere.</b>	Phase I	Ongoing	<b>Ongoing</b>
42. Provide the delivery of information to Western Illinois University and regional patrons by <ul style="list-style-type: none"> <li>a. Migrating print collections to electronic resources as available. <b>Western Illinois University now has access to more than 55,000 online journals and databases.</b></li> <li>b. Utilizing technology where appropriate to educate library users of available print and electronic resources. <b>Between 2006 and 2008, University Libraries experienced 186 percent growth in the Electronic Reserve system. In 2008-2009 WIU Libraries implemented LibGuides, a tool to support instruction and liaison activities. The library has found this to be a very effective tool and will continue to use LibGuides.</b></li> <li>c. Enhancing Interlibrary Loan delivery using high-end copy, transmission, and data management systems such as ILIAD to support WIU and our educational partners. <b>University Libraries implemented ILLiad, which is an online interlibrary loan request and tracking system, in academic year 2007-2008. In 2008-2009 users were extremely pleased with the improved response time for processing and receiving interlibrary loans. The WIU Libraries has established a digitization unit to support the digital storage and dissemination of resources. In 2009-2010 interlibrary loan requests continued to increase.</b></li> <li>d. Developing web-based databases and applications. <b>In 2008-2009, University Libraries implemented LibGuides, a tool to support instruction and liaison activities. In 2009-2010 University Libraries hired an instructional designer to facilitate the development of web-based instructional resources.</b></li> <li>e. Streamlining behind-the-scenes technology infrastructure and systems operations for acquisitions, cataloging, and collection management. <i>(University Libraries)</i>. <b>University Libraries implemented GOBI and PromptCat to improve acquisitions and cataloging functions and efficiency during academic year 2007-2008. Assessment in 2008-09 showed GOBI to be a successful tool whereas PromptCat was causing additional work. It is no longer used at the University. In 2009-2010 University Libraries continued to use PromptCat and began using RCL Web to assist Liaisons in purchasing highly standards-based core materials by subject area.</b></li> </ul>	Phase I	Ongoing	<b>Ongoing</b>  <b>Complete</b>   <b>Ongoing</b>       <b>Ongoing</b>       <b>Ongoing</b>
43. Develop a library portal to integrate and provide a gateway to library resources, quality internet resources, and library services. <i>(University Libraries)</i> . <b>In 2008-2009, University Libraries moved</b>	Phase II	Mid-Term	<b>In Progress</b>

<p><b>from development of a portal to participating with and supporting University portal initiatives. In 2009-2010, University Libraries continued preparations for use of the University portal.</b></p>			
<p>44. Convert the libraries' print format to electronic resources by:</p> <ul style="list-style-type: none"> <li>a. Digitizing selective library collections. <b>This priority is in progress and is an ongoing process. In 2009-2010, University Libraries began digitizing University Sequels, providing metadata for the country historical newsletters, and west central Illinois historical plat maps.</b></li> <li>b. Supporting the creation and distribution of scholarly communication electronically. <b>This priority is in progress and is an ongoing process.</b></li> <li>c. Implementing technology-based improvements, including SFX Link Resolver and Federated Search Engines to search across databases. (<i>University Libraries</i>). <b>University Libraries continues to edit SFX data.</b></li> </ul>	Phase I	Ongoing	<p><b>Ongoing</b></p> <p><b>Ongoing</b></p> <p><b>Ongoing</b></p>
<p>45. Implement the creation and preservation of the University's electronic theses and dissertations and honors theses. (<i>University Libraries</i>). <b>In 2008-2009, University Libraries purchased and implemented access to Dissertation Abstracts. Because this product does not address the needs of honors theses, the Libraries are working with Honors to address their needs. In 2009-2010, University Libraries continued to seek a cost-affordable solution for printing dissertations.</b></p>	Phase II	Short-Term	<b>In Progress</b>
<p>46. Transform the current Library Audiovisual space into a technologically advanced collaborative learning environment by:</p> <ul style="list-style-type: none"> <li>a. Providing evolving technology for student learning including high-tech computer workstations and peripherals. <b>In academic year 2007-2008, University Libraries opened the new Digital Commons which includes a new state-of-the-art computer laboratory. In 2008-2009, a Digital Studio was created to support students and faculty creating digital objects.</b></li> <li>b. Expanding the library infrastructure to support high-end technology and collaborative learning. <b>The Digital Commons also includes Computer Stores, a demonstration electronic classroom, a coffee bar, and offices for University Technology to support high-end technology and collaborative learning. In 2008-2009 The Computer Store moved to the Union, and the Digital Studio moved into the Digital Commons.</b></li> <li>c. Hiring technologically savvy support staff to assist users in integrating the use of technology in their educational pursuits and to support scholarly communication. (<i>University Libraries</i>). <b>In academic year 2007-2008, University Libraries established technology-driven formative evaluations to allow online review of library instruction sessions by department faculty and students. In 2008-2009 the Libraries hired additional tech-savvy student and civil service staff to support our technology needs.</b></li> </ul>	Phase I	Ongoing	<p><b>Ongoing</b></p> <p><b>Complete</b></p> <p><b>Ongoing</b></p>

#### IV. Strengthen Distance Education

Electronically offered programs support and extend the roles of educational institutions. Increasingly they are integral to higher education, with growing implications for institutional infrastructure. A strong distance learning program with appropriate technological infrastructure and staff support will allow Western Illinois University faculty to achieve *Higher Values in Higher Education* goals of outreach and excellence in undergraduate and graduate education.

The planned action items displayed below are in sequential order. They begin with completion of current initiatives to provide the Bachelor of Arts in General Studies degree fully online and to provide the infrastructure to support hybrid instruction in Macomb and the Quad Cities. They continue with advancement of the Higher Learning Commission-North Central Association of Colleges and Schools' *Best Practices for Electronically Offered Degree and Certificate Programs* for new (and existing) distance education degree programs. Extension of distance learning best practices reinforces the University's commitments to educational opportunity and excellence in undergraduate and graduate education.

Action	Priority	Completion	Status
47. Complete plans to offer the Board of Trustees Bachelor of Arts degree fully online. ( <i>Center for Innovation in Teaching and Research, Distance Learning Advisory Board, UPI Distance Learning Committee, Deans</i> ). <b>The B.A. in General Studies degree is now fully online.</b>	Phase I	Short-Term	<b>Complete</b>
48. Complete plans to offer an online course wizard to support planning and scheduling for timely Bachelors of Arts in General Studies degree completion. ( <i>Center for Innovation in Teaching and Research</i> )	Phase I	Short-Term	
49. Upgrade all 16 of the University's video-conferencing units. ( <i>Provost, University Computer Support Services</i> ). <b>All of the University centrally funded CODEC systems have been upgraded.</b>	Phase I	Short-Term	<b>Complete</b>
50. Clarify the procedures necessary to access CODEC facilities, and publish policies for use of CODEC classrooms. ( <i>College of Business and Technology, College of Education and Human Services</i> ). <b>Electronic classroom information is available at <a href="http://www.wiu.edu/university_technology/eclassrooms.php">www.wiu.edu/university_technology/eclassrooms.php</a>.</b>	Phase I	Short-Term	<b>Complete</b>
51. Upgrade course management software (WebCT Vista). ( <i>University Computer Support Services</i> ). <b>Western Illinois University completed migration to WebCT Vista in summer 2007. WebCT Vista was acquired by Blackboard and is at end of life in 2010. Dr. Richard Carter is leading a student, faculty and staff selection committee for a new course management system.</b>	Phase I	Ongoing	<b>In Progress</b>
52. Provide a consistent and coherent technical framework for distance education students and faculty. ( <i>Center for Innovation in Teaching and Research, Distance Learning Committee, Distance Learning Support Staff</i> ). <b>Western Illinois University is benchmarking and adapting best practices in online education as part of its special emphasis self-study for institutional re-accreditation from the Higher Learning Commission-North Central Association of Colleges and Schools. The University will begin evaluating and implementing recommendations from the on-site review team once they are received.</b>	Phase II	Short-Term	<b>In Progress</b>
53. Create a Distance Learning Portal for all online courses at Western Illinois University to provide a single point of access for all potential and current students to review online courses offered at the	Phase II	Short-Term	<b>Ongoing</b>

<p>University.</p> <ul style="list-style-type: none"> <li>The distance learning portal should include information about the University, its programs, courses, costs, and related policies and requirements; pre-registration advising; application for admission; placement testing; enrollment/registration in programs and courses; financial aid information; academic advising; tutoring; career counseling and placement; appropriate library resources; training in information literacy; bookstore services; ongoing technical support, preferably offered during evenings and weekends as well as normal institutional working hours; and access to grievance procedures. (<i>Center for Innovation in Teaching and Research, Distance Learning Advisory Board, UPI Distance Education Committee</i>). <b>The Bachelor of Arts in General Studies Website has been re-designed to include information required of a distance learning portal.</b></li> </ul>			
<p>54. Provide an ongoing program of appropriate technical, design, and production support for faculty members. (<i>Center for Innovation in Teaching and Research, Distance Learning Support Staff</i>). <b>Dr. Rick Carter works with staff from the Center for Innovation in Teaching and Research and the Center for the Application of Information Technologies to provide faculty with technical, design, and production support for distance learning courses.</b></p>	Phase II	Ongoing	<b>Ongoing</b>
<p>55. Provide technical and physical plant facilities including appropriate staffing and technical assistance to support distance-delivered programs. (<i>Provost, Deans, Chairs, Center for Innovation in Teaching and Research, Physical Plant, University Computer Support Services</i>)</p>	Phase II	Ongoing	
<p>56. Establish and implement distance education programs identified in academic master plans and supported in the University's curricular approval processes. (<i>Colleges, Departments, Faculty, Center for Innovation in Teaching and Research</i>). <b>Western Illinois University has approval from the Higher Learning Commission-North Central Association of Colleges and Schools to offer the Bachelors of General Studies, Masters in Instructional Design and Technology, and the Masters in Business Administration online. A decision regarding the University's proposal to offer the RN-BSN through distance modalities is currently pending by the Commission.</b></p>	Phase III	Ongoing	<b>Ongoing</b>
<p>57. Take existing stand-alone degree programs and embed them into existing academic programs (e.g., Fire Science into Emergency Management). (<i>Faculty, Departments, Colleges</i>)</p>	Phase III	Short-Term	
<p>58. Establish a knowledge-management system for sharing information and best practices especially for the continuum of technology-enhanced instruction. Promote more collaboration and sharing of best practices and ideas within departments. Disseminate current information regarding copyright use, especially with technology tools. (<i>Center for Innovation in Teaching and Research, University Libraries, Faculty</i>). <b>The Center for Innovation in Teaching and Research (CITR) supports an IntegrateIT wiki. This tool provides faculty and staff with an interactive clearinghouse of current and emergent instructional technologies and methods being used in the classroom.</b></p>	Phase III	Short-Term	<b>Complete</b>

## V. Enhance Infrastructure and Security

At the center of Western Illinois University's technology is the core network that connects all University buildings and campuses. If Western Illinois University is to successfully promote academic excellence and educational opportunities, it must provide a high-speed core network with load balancing and redundancy. A strong infrastructure supports state-of-the-art classrooms and instruction, a wireless network throughout the Macomb and Quad Cities campuses, and commitments to ResNet—a student fee-funded program that supports a high-speed network which connects residents' computers with University computer resources. Equally important to the University's core network is state-of-the-art telecommunications and network management emphasizing risk management and security planning.

### A. High-Speed Core Network

<u>Action</u>	<u>Priority</u>	<u>Completion</u>	<u>Status</u>
59. Complete infrastructure work associated with load balancing and redundancy.			
a. Complete the redundant fiber loop on the Western Illinois University-Macomb Campus. ( <i>University Computer Support Services, Physical Plant</i> ). <b>The Macomb campus fiber loop is complete.</b>	Phase I	Short-Term	<b>Complete</b>
b. Replace "core" switches. ( <i>University Computer Support Services, Physical Plant</i> ). <b>Technology Infrastructure Support Services has replaced core network switches. The old switches were deactivated in summer 2008.</b>	Phase I	Short-Term	<b>Complete</b>
c. Implement a multiyear plan to exchange hubs and switches in academic buildings. ( <i>University Computer Support Services, Physical Plant</i> ). <b>All hubs have been replaced.</b>	Phase I	Mid-Term	<b>Complete</b>
d. Acquire additional power for Morgan 103. ( <i>University Computer Support Services, Physical Plant</i> ). <b>Additional power was procured as part of the purchasing of an emergency generator as described below.</b>	Phase I	Short-Term	<b>Complete</b>
e. Obtain generator power for Morgan 103. ( <i>Assistant to the President for Planning, Budget, and Institutional Research; University Computer Support Services; Physical Plant</i> ). <b>An emergency generator with uninterruptable power supply has been purchased and installed.</b>	Phase I	Short-Term	<b>Complete</b>
f. Acquire additional Internet bandwidth. ( <i>Assistant to the President for Planning and Budget, Director of Special Projects, University Computer Support Services, Physical Plant; Telecommunications</i> ). <b>Bandwidth on the Quad Cities campus is at 19.0Mb with ongoing evaluation of cost with the feasibility to add more. The Macomb campus increased from 85Mb to 200Mb. A second point of egress was acquired by the University and offers connectivity for Macomb schools, business and industry. An additional 50 Mb of Bandwidth for ResNet will be purchased during fall 2010.</b>	Phase I	Short-Term	<b>Ongoing</b>
60. Engage in ongoing facilities and capacity upgrades. By the end of Fiscal Year 2010:			
a. Formalize information technology contingency planning with institutional policies on backups, data storage, data	Phase I	Short-Term	<b>Ongoing</b>

verification, data restoration, and recovery planning. <i>(President's Technology Infrastructure Group, President's Cabinet, and President)</i> . <b>Administrative Information Management Systems, Electronic Student Services, and University Technology have documented disaster recovery plans, and protocol in each area is tested at least annually.</b>			
b. Formalize incidence response policies and procedures to data and/or network intrusions. <i>(President's Technology Infrastructure Group, President's Cabinet, and President)</i> . <b>The Chief Technology Security Officer received President's Cabinet approval for incidence response policies and procedures to data and/or network intrusions.</b>	Phase I	Short-Term	<b>Complete</b>
c. Replace CAT3 with CAT6. <i>(University Computer Support Services, Physical Plant)</i> . <b>Geographic Information Systems and University Technology completed mapping of the Western Illinois University Network. University Technology identified category 3 cables that need to be replaced inside buildings. The replacement is being planned as part of the Macomb Campus migration to Voice Over Internet Protocol (VOIP) network.</b>	Phase II	Mid-Term	<b>In Progress</b>
d. Establish climate control for wiring POPs. <i>(University Computer Support Services, Physical Plant)</i> . <b>University Technology maintains documentation of all wiring closets to inform climate control planning. Enhancements are made as funds are available.</b>	Phase II	Mid-Term	<b>In Progress</b>
e. Implement port per pillow in ResNet. <i>(University Computer Support Services, Physical Plant, University Housing and Dining Services)</i> . <b>University Technology is benchmarking feasibility and viability in regard to wired versus wireless technology. Recommendations to the President's Cabinet will be made during Fiscal Year 2011.</b>	Phase II	Long-Term	<b>In Progress</b>
f. Review using Sherman Hall as the Network's/Telecommunications' primary location. <i>(Telecommunications, Vice President for Administrative Services, University Computer Support Services, Director of Special Projects)</i> . <b>A second point of egress is now operational in Morgan Hall. Implementation of a VOIP network will eliminate Sherman Hall as the single telecommunication point of contact.</b>	Phase II	Mid-Term	<b>In Progress</b>
61. Create a complete wireless network on the Western Illinois University-Macomb Campus beginning with all academic buildings and continuing with nonacademic buildings and spaces between buildings.			
a. Complete the fiber loop on the Macomb campus to support a completely wireless environment by running fiber from:			
Sherman through Simpkins to Olson. <i>(University Computer Support Services, Physical Plant, University Housing and Dining Services)</i> . <b>This and</b>	Phase I	Short-Term	<b>Complete</b>

<b>all other phases of the fiber loop (described below) are complete.</b>			
Olson to Grote Hall. ( <i>University Computer Support Services, Physical Plant, University Housing and Dining Services</i> )	Phase I	Short-Term	<b>Complete</b>
Grote through Hanson Field to Tanner Hall. ( <i>University Computer Support Services, Physical Plant, University Housing and Dining Services, Intercollegiate Athletics</i> )	Phase II	Short-Term	<b>Complete</b>
Tanner across University Drive to Thompson Hall. ( <i>University Computer Support Services, Physical Plant, University Housing and Dining Services, Intercollegiate Athletics</i> )	Phase III	Mid-Term	<b>Complete</b>
b. Modify the current wireless environment to require authentication. ( <i>University Computer Support Services</i> ). <b>University Technology is expected to have this action completed by the end of fall 2010.</b>	Phase I	Mid-Term	<b>In Progress</b>
62. Add additional capacity for ResNet. ( <i>University Computer Support Services</i> ). <b>ResNet Bandwidth was increased by 40Mb and total Macomb campus bandwidth increased to 200Mb. University Technology is working with the Purchasing Office to secure an additional 50 Mb of bandwidth. This will raise the Macomb Campus total to 250 Mb.</b>	Phase III	Short-Term	<b>Ongoing</b>
63. Provide wireless access for all ResNet rooms. ( <i>University Computer Support Services, University Housing and Dining Services, Physical Plant</i> ). <b>There is wireless access in common areas in all residence halls and dining centers on the Macomb campus. Wireless site surveys have been completed all residence halls except Thompson. Designs and proposals have been completed for Lincoln, Washington, Grote, Bayliss, and Henninger. Wire mold has been installed in Lincoln, and cable is being pulled to the access points. Wire mold and cable should be installed as part of the Washington floor by floor renovation that will be completed during academic year 2010-2011.</b>	Phase III	Mid-Term	<b>In Progress</b>
64. Establish climate control for all ResNet wiring closets. ( <i>University Computer Support Services, University Housing and Dining Services, Physical Plant</i> ). <b>University Housing and Dining Services has agreed to assist with this endeavor, but it has been placed on hold due to the state's financial situation.</b>	Phase III	Mid-Term	<b>In Progress</b>
65. Establish multiple fiber paths to all ResNet core buildings. ( <i>University Computer Support Services, University Housing and Dining Services, Physical Plant</i> ). <b>Fiber redundancy continues as funding permits.</b>	Phase III	Mid-Term	<b>Complete</b>
66. Implement port isolation and private VLANs in all ResNet buildings. ( <i>University Computer Support Services, University Housing and Dining Services, Physical Plant</i> ). <b>This project is currently on hold. Depending on usage pattern change once wireless is in place, it may no longer be viable or cost effective.</b>	Phase IV	Long-Term	<b>In Progress</b>
67. Complete redundant fiber links to all ResNet buildings. ( <i>University Computer Support Services, University Housing and Dining Services, Physical Plant</i> ). <b>This project continues as resources permit.</b>	Phase IV	Long-Term	<b>In Progress</b>

68. Complete rewiring of all ResNet rooms to increase the number of available ports. ( <i>University Computer Support Services, University Housing and Dining Services, Physical Plant</i> ). <b>This is part of the benchmarking review described in action #60e.</b>	Phase IV	Long-Term	<b>In Progress</b>
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**B. Telecommunications**

<u>Action</u>	<u>Priority</u>	<u>Completion</u>	<u>Status</u>
69. Work with the City of Moline and Renew Moline to identify dark fiber connections between Moline and Macomb to enable additional internet access/egress between the Western Illinois University campuses and, therefore, providing the technological infrastructure for additional bandwidth, Internet2, VOIP telecommunications, and other streaming. ( <i>Director of Special Projects; Assistant to the President for Planning, Budget, and Institutional Research; University Computer Support Service; Telecommunications</i> ). <b>A fiber pathway from the two campuses of Western Illinois University has been completed. Lighting of the fiber is contingent on funding.</b>	Phase I	Short-Term	<b>Complete</b>
70. Establish partnerships with local providers to offer local wireless and DSL at affordable rates to students, faculty, and staff. ( <i>Telecommunications, Purchasing, Director of Special Projects, University Computer Support Services</i> ). <b>The establishment of the second point of egress on the Macomb Campus enabled local providers to offer local wireless and DSL at affordable rates to students, faculty, and staff.</b>	Phase II	Mid-Term	<b>Complete</b>
71. Assess telecommunications systems and consider the convergence of telephone, VoIP, all voice services, and data. ( <i>Telecommunications, Purchasing, Director of Special Projects, University Computer Support Services</i> ). <b>VOIP has been successfully tested in a department (Support Center and WQPT) and Building (60<sup>th</sup> Street Campus in Moline), and the Vice President for Quad Cities, Planning, and Technology is leading a study group that will make recommendations to the President’s Cabinet for Macomb Campus migration during Fiscal Year 2011. The Quad Cities Riverfront Campus is also planned to have VOIP service.</b>	Phase II	Mid-Term	<b>In Progress</b>
72. Partner with cellular provider(s) to integrate functionality and billing. ( <i>Telecommunications, Purchasing, Director of Special Projects, University Computer Support Services</i> ) <b>Enhanced functionality is described in Action #73.</b>	Phase III	Mid-Term	<b>In Progress</b>
73. Improve cellular coverage and capacity. ( <i>Telecommunications, Purchasing, Director of Special Projects, University Computer Support Services</i> ). <b>University Technology is working with a local provider to deploy WiMAX to enable fixed and fully mobile internet access.</b>	Phase III	Mid-Term	<b>In Progress</b>

**C. Network Administration**

<u>Action</u>	<u>Priority</u>	<u>Completion</u>	<u>Status</u>
74. Complete hiring of a data security officer. ( <i>Security Officer Search Committee, University Computer Support Services</i> ). <b>A Security Specialist was hired in University Technology to serve in this capacity.</b>	Phase I	Short-Term	<b>Complete</b>
75. Implement a robust firewall and intrusion detection environment. ( <i>University Computer Support Services</i> ). <b>University Technology completed firewall and intrusion detection system installation on both campuses.</b>	Phase I	Short-Term	<b>Complete</b>
76. Eliminate the ability to use VNC, Remote Desktop, or other remote control software to access PCs from outside the Western Illinois University network. ( <i>University Computer Support Services</i> ). <b>The abilities described above are no longer possible.</b>	Phase I	Short-Term	<b>Complete</b>
77. Create and use server-only segments. ( <i>University Computer Support Services, Electronic Student Services</i> ). <b>Server only segments have been installed.</b>	Phase I	Short-Term	<b>Complete</b>
78. Centrally locate servers on the Macomb and Quad Cities (60 <sup>th</sup> Street and Riverfront) campuses, where such centralization will not adversely affect the purposes of those servers; develop local, service-level agreements between the units and UCSS prior to relocation of servers. ( <i>University Computer Support Services; Physical Plant; Telecommunications; Director of Special Projects; Assistant to the President for Planning, Budget, and Institutional Research; Colleges</i> ). <b>University Technology, Electronic Student Services, the Center for the Application of Information Technologies, and University Libraries have centralized servers in the Morgan Hall 103 facilities.</b>	Phase I	Long-Term	<b>Ongoing</b>
79. Review and implement VPN or other technology access to Western Illinois University servers outside the University network. ( <i>University Computer Support Services</i> ). <b>VPN has been installed and is supporting end users.</b>	Phase II	Short-Term	<b>Complete</b>
80. Review and implement, where appropriate, data encryption and double encryption options. ( <i>University Computer Support Services, Electronic Student Services, Director of Special Projects</i> ). Western Illinois University longer allows for the storage of social security numbers, credit card information or other sensitive data unless expressly required for job use. <b>University Policy and Procedures on sensitive data were approved by the President's Cabinet in summer 2010. Scanning for sensitive data occurs twice per year to ensure compliance with University policy.</b>	Phase II	Mid-Term	<b>Complete</b>
81. Implement required registration of all personal computers within the Western Illinois University network. ( <i>University Computer Support Services, Electronic Student Services</i> ). <b>During academic year 2010-2011, University Technology will implement the infrastructure to support required registration of all personal computers within the Western Illinois University network.</b>	Phase II	Mid-Term	<b>In Progress</b>

**D. Risk Management and Security**

<u>Action</u>	<u>Priority</u>	<u>Completion</u>	<u>Status</u>
<p>82. Create a Social Security Task Force charged with surveying all deans and directors to inventory current use of Social Security numbers at Western Illinois University to document where SSNs are used, how they are used, and where they are stored (paper and electronically). (<i>President, Vice Presidents, Assistant to the President for Planning and Budget</i>)</p> <p>The end result of data collection and benchmarking of practices at peer institutions is to make policy and procedure recommendations to the President’s Cabinet on University Social Security number use and where the University identification number could be used as a proxy. The Task Force will also note where Social Security number use and reporting are required by state or federal legislation, external agencies, etc. (<i>Social Security Task Force</i>). <b>Task force recommendations were made in December 2007. They have been given to the Chief Technology Security Officer for consideration and implementation with University Technology Directors and the Campus Technology Security Committee.</b></p>	Phase I	Short-Term	<b>Complete</b>
<p>83. Create a Credit Card/Debt Card Task Force charged with surveying all deans and directors to inventory current use of credit/debit cards at Western Illinois University. (<i>President, Vice Presidents, Assistant to the President for Planning and Budget</i>)</p> <p>The end result of data collection is to document where they are used, how they are used, and where information is stored (paper and electronically). The end result of data collection and benchmarking of practices at peer institutions is to make policy and procedure recommendations to the President’s Cabinet on University credit/debit card use and reporting. (<i>Credit Card/Debit Card Task Force</i>). <b>Same response as item #82.</b></p>	Phase I	Short-Term	<b>Complete</b>
<p>84. Create a Data Transfer Task Force charged with reviewing all mainframe downloads to PCs and /or servers. (<i>President, Vice Presidents, Assistant to the President for Planning and Budget</i>)</p> <p>The end result of data collection is to determine who is downloading what information, why it is necessary, whether it contains sensitive data, and if there is an alternative to performing those downloads. (<i>Data Transfer Task Force</i>). <b>Same response as item #82.</b></p>	Phase I	Short-Term	<b>Complete</b>
<p>85. Develop a comprehensive data security plan for Western Illinois University, including successful implementation of the following:</p> <ul style="list-style-type: none"> <li>a. Effective training across all levels of the University and with certification of training and policy compliance. Business Office and Chief Technology Security Officer provide annual credit card handling training.</li> <li>b. Creation and expansion of a single directory services environment. See action #10a</li> <li>c. IP security cameras with centralized storage. <b>Policy is currently being drafted for consideration by the President’s Cabinet.</b></li> <li>d. Improved data security protocols and encryption. <b>Sensitive data policy and procedures were updated in</b></li> </ul>	Phase I	Mid-Term	<p><b>Ongoing</b></p> <p><b>Complete</b></p> <p><b>In Progress</b></p> <p><b>Complete</b></p>

<p>summer 2010. Encryption policy was approved by the President's Cabinet in April 2009.</p> <p>e. Security and computer-use policies. <b>The Chief Technology Security Officer has been charged to work with the Technology Security Committee to review and update all technology security and computer-use policies and present recommendations to the President's Cabinet during academic year 2010-2011.</b></p> <p>f. Policies for requiring antivirus, test, and quarantine. <b>The President's Cabinet approved protocol for test and quarantine of potentially infected computers as a result of an academic year 2008-2009 Malware attack on the University.</b></p> <p>g. Auditing practices to obtain more feedback and to address deficiencies (<i>President's Technology Infrastructure Group</i>). <b>The University's technology departments are audited annually by the external auditors. The University is responsible for addressing any findings and considering other recommendations.</b></p>			<p><b>In Progress</b></p> <p><b>Complete</b></p> <p><b>Ongoing</b></p>
<p>86. Enhance Internet security by implementing a firewall and intrusion-detection systems. (<i>University Computer Support Services</i>). <b>See action #75.</b></p>	Phase I	Mid-Term	<b>Complete</b>
<p>87. Hire an institutional security officer to coordinate technology security training and implementation across the University. This position, separate from the new network security technician described earlier in this <i>Plan</i>, should report to a senior-level institutional official and should work with a security committee and other institutional task forces to address technology security at the University. (<i>President</i>). <b>A Chief Technology Security Officer was hired at Western Illinois University.</b></p>	Phase I	Short-Term	<b>Complete</b>
<p>88. Create/update disaster contingency planning to ensure recovery of these systems and test processes and make appropriate adjustments annually. (<i>President's Technology Infrastructure Group</i>). <b>See action #60a.</b></p>	Phase I	Ongoing	<b>Ongoing</b>
<p>89. Implement a redundant server and storage location at Western Illinois University-Macomb and Quad Cities (60<sup>th</sup> Street and Riverfront). (<i>President's Technology Infrastructure Group</i>). <b>The Quad Cities campus has been established as the tape media storage location for the Macomb Campus.</b></p>	Phase I	Long-Term	<b>Ongoing</b>
<p>90. Establish the feasibility and need for establishing a second firewall between ResNet and the University data network to create an additional level of protection and adequate restriction to University systems. (<i>University Computer Support Services</i>). <b>Feasibility study revealed another solution that has been implemented.</b></p>	Phase II	Mid-Term	<b>Complete</b>
<p>91. Review and develop an implementation plan for approved recommendations of the Social Security Task Force. (<i>President; Vice Presidents; Assistant to the President for Planning, Budget, and Institutional Research</i>). <b>See Action #80.</b></p>	Phase II	Mid-Term	<b>Complete</b>
<p>92. Review and develop an implementation plan for approved recommendations of the Credit Card/Debit Card Task Force.</p>	Phase II	Mid-Term	<b>Complete</b>

( <i>President; Vice Presidents; Assistant to the President for Planning, Budget, and Institutional Research</i> ) <b>See Action #80.</b>			
93. Review and develop an implementation plan for approved recommendations of the Data Transfer Task Force. ( <i>President; Vice Presidents; Assistant to the President for Planning, Budget, and Institutional Research</i> ) <b>See item #84.</b>	Phase II	Mid-Term	<b>In Progress</b>

**VI. Demonstrate Accountability**

To successfully achieve institutional technology goals requires fiscal planning for technology at the University level, instead of relying on end-of-the-year monies. As Western Illinois University clearly identifies funding responsibilities for technology at the institutional, divisional, college, and departmental level, there are opportunities for increased funding across all levels of the University.

<u>Action</u>	<u>Priority</u>	<u>Completion</u>	<u>Status</u>
94. Incorporate technological and infrastructure planning into the newly developing Western Illinois University campus master plans by identifying technology and infrastructure plans for the:	Phase I	Short-Term	
a. Performing Arts Center at Western Illinois University-Macomb. ( <i>Performing Arts Center Users Group, Dean of Fine Arts and Communication, University Computer Support Services, Physical Plant</i> ). <b>Western Illinois University received Illinois Capital Development Board approval to include technology and telecommunications infrastructure as part of the construction budget.</b>			<b>In Progress</b>
b. Western Illinois University-Quad Cities Riverfront Campus, including: <ul style="list-style-type: none"> <li>i. Establishing classroom standards for technology. (<i>Quad Cities faculty, Quad Cities Users Group Technology Subcommittee, Director of Special Projects, University Computer Support Services</i>). <b>Technology planning for Building 1 is complete, and technology design planning for phase II is currently in process.</b></li> <li>ii. Implementing a dark fiber connection between Macomb and the Quad Cities campuses at 60<sup>th</sup> Street and on the riverfront, acquiring additional Internet egress, and adding an additional access and egress point in Macomb. (<i>Director of Special Projects; University Computer Support Services; Telecommunications; Physical Plant; Assistant to the President for Planning, Budget, and Institutional Research</i>). <b>A federal grant application was submitted to light dark fiber between Macomb, the Quad Cities, and Argonne National Laboratories. A funding decision is currently pending.</b></li> </ul>			<b>In Progress</b>  <b>In Progress</b>
c. Multicultural Center at Western Illinois University-Macomb. ( <i>Student Services, Electronic Student Services, University Computer Support Services, Physical Plant</i> ).			<b>Complete</b>

<b>Representatives from Electronic Student Services and University Technology were included in the technological and infrastructure planning for the Multicultural Center.</b>			
95. Incorporating technology needs into the newly developing comprehensive campaign. <i>(President, Vice Presidents, Deans)</i> . <b>Information technologies are a funding priority in the newly developing comprehensive campaign for Western Illinois University that is currently in the quiet phase. Private donations supported implementation of VOIP on the Quad Cities Campus.</b>	Phase I	Short-Term	<b>Ongoing</b>
96. Seeking external funding for technology and technological innovation at Western Illinois University. <i>(Faculty, Staff, President's Technology Advisory Group)</i> . <b>This is an ongoing activity of University faculty and staff. The Center for the Application of Information Technologies, for example, is exclusively externally funded.</b>	Phase II	Ongoing	<b>Ongoing</b>

Equally as important is the effective and efficient use of existing staff and fiscal resources. Western Illinois University will develop and implement actions to coordinate the efficient acquisition, utilization, and application of technology. By building on existing strengths, addressing challenges, and meeting opportunities, we will advance technology in support of the academic mission and service operations of the University.

<u>Action</u>	<u>Priority</u>	<u>Completion</u>	<u>Status</u>
97. Review existing technological resources available at Western Illinois University, and balance these resources against the need for supporting daily operations and long-term planning of the University. An external consultant will help the President's Cabinet and the President's Technology Infrastructure Group, with recommendations from the President's Technology Advisory Users Group, determine the best action strategies to achieve the ambitious goals of this <i>Strategic Plan</i> , balanced against the demands of daily operations. <i>(President; Vice Presidents; Assistant to the President for Planning, Budget, and Institutional Research, President's Technology Infrastructure Group; President's Technology Advisory Users Group)</i> . <b>A consultant's report was received in spring 2007 and the President's Cabinet carefully considered the recommendations in that report.</b>	Phase I	Short-Term	<b>Complete</b>
98. Benchmark technology support per faculty and staff ratios and other measures of technological services at Illinois public universities and other benchmark institutions. <i>(Planning, Budget, and Institutional Research)</i> . <b>A fall 2007 benchmarking analysis demonstrated that Western Illinois University had one of the most decentralized technological structures of Illinois public universities and benchmark institutions.</b>	Phase I	Short-Term	<b>Complete</b>
99. Following the first two actions stated above, develop and implement a support plan that exceeds the levels of support at peer institutions. <i>(President; Vice Presidents; Assistant to the President for Planning, Budget, and Institutional Research; President's Technology Infrastructure Group; President's Technology Advisory Users Group)</i> . <b>A centralized university technology structure was created which partners with Administrative Information Management Systems and</b>	Phase I	Short-Term	<b>Complete</b>

<p><b>Electronic Student Services. Within University Technology, Classroom Support Services and Web Support Services have been established to focus on the needs and priorities of end users.</b></p>			
<p>100.Consolidate technology resources, where appropriate, to maximize services to students, faculty, and staff and prevent unnecessary duplication of efforts. <i>(President; Vice Presidents; Assistant to the President for Planning, Budget, and Institutional Research)</i>. <b>Technology agreements between University Technology, the Colleges, and Quad Cities Technology Support Services have maximized services to students, faculty, and staff and prevented duplication of efforts.</b></p>	Phase I	Short-Term	<b>Ongoing</b>
<p>101.Provide professional development opportunities for technology faculty and staff to stay current in this dynamic field. <i>(President, Vice Presidents, Deans, Chairs, Directors)</i>. <b>This is an ongoing activity.</b></p>	Phase I	Short-Term	<b>Ongoing</b>
<p>102.Clarify the organizational roles and responsibilities of technology units and technology staff in colleges, departments, and units to determine and implement action strategies that best utilize the University's technology support staff and structure. <i>(President's Technology Infrastructure Group, Deans, Chairs)</i>. <b>See Item #100.</b></p>	Phase I	Short-Term	<b>Ongoing</b>