



To: Board of Directors
From: Steven Birmingham, I.T. Director
Re: Annual Information Technology Update
Date: July 14, 2011

In August 2009, Janice Moore submitted a draft of a long-term information technology strategic plan to the Executive Committee of the Board. We have been using that draft to guide our activities, and I am pleased to provide the following updates. Section numbers below correspond to section numbers in the original plan.

1.2 Plan Process Overview and Stakeholders

During the past two years, the I.T. planning and budgeting process has become progressively more inclusive to adhere to the principles of shared governance. The I.T. Director attends Student Government Association meetings and Faculty Senate meetings as needed throughout the year. An I.T. steering committee has been formed of students, faculty, staff, and alumni to review and approve policies and major projects. It has met twice in 2011 and will meet at least four times each year. Also each year, all students, faculty, and staff are invited to provide feedback and ideas related to technology, which feeds annual planning and budgeting.

1.3. Technology Reform

All eleven initiatives mentioned in the long-term plan are either complete, scheduled, or have been incorporated into ongoing operations:

Complete or ongoing:

- Wireless: all Central Penn sites now have 100% wireless network coverage
- The I.T. policy was published in 2010 (see also info. on procedures below)
- Analysis of I.T: The Director has completed the analysis and made appropriate changes
- Feith automation: Five processes automated in 2010, four scheduled for 2011 (examples: course drop/add, curriculum review, admissions)
- Updates to servers: several updates done in 2010 and more budgeted for 2011
- Projects to enable other business initiatives: one completed in 2010 (direct lending), three budgeted for 2011
- Internal processes: 53 procedures published since July 2009. 65 more in draft form (examples: new computer setup, hardware purchase, data center startup)
- Training: 13 topics are offered throughout the year (see section 3.3)
- Fiber connectivity lines: project completed to improve connections and to double Internet capacity at the Lehigh site

Scheduled for 2011:

- Email archiving: project underway
- Updating the telephone system at Summerdale: Project underway

In addition to those initiatives, we have completed numerous other major projects, including:

- A comprehensive review of all classroom and online teaching technology was completed in 2010, which identified dozens of possible enhancements. Twenty changes have already been made, and another 19 are in progress.
- In the past, systems were not monitored, so students, faculty, and staff were often the first to discover problems. Now, the I.T. Department monitors key systems and alerts students, faculty, and staff of relevant issues.
- An automated scheduling system called Astra has been brought online. This system will help the Registrar produce better course schedules so students can progress towards graduation more efficiently.
- The Blackboard learning management system has been upgraded from version 7 to the newest version, 9.

2.1 Mission and Vision Statement

The I.T. Department continues to operate under the mission adopted in 2009:

Stay current with technology trends and make utilization of technology easier for students, faculty, and staff through advising, teaching, automating, and troubleshooting.

2.2 Ongoing Communication

As called for in the plan, I.T. communications have been strengthened and will continue to be strengthened:

- I.T. Department meetings take place twice per term
- An I.T. brochure for students, faculty, and staff has been produced
- A web page has been posted to communicate key I.T. information to the entire Central Penn community
- All I.T. information has been updated in the student handbook and catalog
- I.T. staff continue to publish articles in the school's electronic newsletters

2.3. Partnerships and Community Linkages

Fifty-three vendors play a role in providing information technology to the Central Penn community. Of those vendors, several are critical to the school's success:

Systems providers:

- Jenzabar (student information system and accounting system)
- Blackboard (learning management system)
- Hobsons (school website and admissions/recruiting system)
- Informed Decisions Corp. (student online payment system)

Support providers:

- STC Services (technical support for school phone systems)
- Morefield Communications (technical support for school data networks)
- Pennlantic/Frasier (technical support for school servers and computers)
- Blackboard (technical support for students and teachers using Blackboard)

Other:

- Frontier Communications (provides the school's voice and data connections)

The I.T. Director believes the number of vendors and systems must be reduced to make the environment more stable and manageable. As contracts expire, and as new projects are considered, we evaluate whether it is appropriate at that time to eliminate or consolidate any vendors or systems.

3.1. Classroom and Office Support

Classroom and office support has been dramatically enhanced since mid-2009. Support is provided using documented procedures rather than on a best-effort basis. Daytime call coverage hours have been expanded 43% and after hours coverage has been established. All I.T. Department members now take shifts answering help calls, not just the part-time workers. Vendors providing support are now actively managed (they were not in the past). A new toll-free help number has been established. All requests are now tracked in a database so root causes can be identified to prevent future problems. These efforts have paid off: from Summer 2009 through Spring 2011, student enrollment rose 50%, but help call volume rose only 6%.

3.2. Curriculum Support

The I.T. Department has developed a new process to ensure classes have appropriate hardware and software to achieve what is in the syllabus. In conjunction with the periodic curriculum review process, each academic program will undergo an I.T. review where all instructors are requested to provide feedback. Any hardware or software gaps will be documented, discussed with the program champion, and addressed through the move/add/change process, projects, or future budgeting and planning. Two programs have been reviewed in 2011: The Digital Graphic Arts program and the Information Technology program.

3.3. Student and Staff Technology Skills, Knowledge and Usage

Teaching has been adopted as part of the department's mission. All I.T. Department members are responsible for providing training. As of Summer, 2011, the following topics are offered on a regular schedule: Microsoft Excel 2007, Microsoft Outlook 2007, Microsoft Word 2007, Non-Linear PowerPoint, my.centralpenn.edu, Adding Media to Blackboard, Feith Basics, Emerging Educational Technologies, Telephone System Basics, Shared Files Overview, Introduction to SmartBoards, Introduction to Emerging Technologies, and All Google All the Time. More topics are being developed.

3.4. Technology Inventory

A standard hardware list has been established. Since 2009, all new devices (except one) have followed the standard, which leads to better support, security, and reliability. A service stock of parts and devices has been established so move/add/change tickets and help tickets can be processed efficiently. Devices are now tagged, tracked, and monitored.

3.4.1. Personnel

As called for in the plan, I.T. has six full-time employees. Adding our four part-time workers' hours brings us to a total of eight full-time equivalent employees (FTEs). In 2011, the position of I.T. Education Specialist was created and filled to help faculty leverage technology for teaching. All I.T. employees are required to take training to stay current with technology. Since this team serves students, faculty, and staff directly, we will need to continue expanding the team as enrollment grows and as technology becomes more important to the school's mission.

3.4.2. Security Issues

We have not suffered any security incidents in 2011, and we did not encounter any in 2010 or 2009. Last year, the position of I.T. Network Specialist was created and filled. This specialist leads the team's security efforts and is in the process of evaluating and documenting our environment. It is likely this work will lead to recommendations for substantial enhancements over the coming years. I.T. audits conducted by a third party in 2011 and 2010 also yielded a short list of recommendations, which are being implemented.

3.4.3. Technology Policies

As called for in the plan, a schoolwide I.T. policy was adopted and published in 2010. It is being updated for 2011 by the I.T. Steering Committee. The policy can be found at CentralPenn.edu/collegeservices

3.4.4. Acquisition Plans

As called for in the plan, the 2010 and 2011 budgets included funding for replacements of older technology hardware. At the current level of investment, we are replacing computers approximately every 5.5 years. The plan originally called for certain devices to be replaced each year based on a list developed in 2009. That process has been changed in conjunction with the new brand to help faculty and staff be more responsive to students. Now, each year, managers throughout the organization are invited to provide feedback on which devices should be kept and replaced to better serve students.

3.5. Facilities

We have made some progress in securing and stabilizing our servers and networks, but there is still major work ahead. Air conditioning for servers and networks has been repaired or replaced, door locks have been added or changed, fire suppression has been added, and rooms have been cleaned of clutter. However, we still need to eliminate windows from data centers, add battery backups and generators, and separate equipment storage space from server space.

3.6 Staff Development

Much progress has been made as noted in sections 3.3 and 3.4.1 above.

3.7 Current Technology Budget Analysis

Management and the Board have been very supportive of funding the I.T. activities necessary to accomplish the school's mission. Capital projects for 2011 include:

- Additional teaching technologies in classrooms and online

- Replacement of old computers and other devices schoolwide
- Enhancements to the voice and data networks at all sites
- Upgrades to the student information system and faculty/staff email system
- A project to give students a single signon to access all systems

On the expense side, from 2009 to 2011, we were able to effectively support a 50% increase in student enrollment with only a 31% increase in the I.T. Department budget.

3.8 Systems

The school uses 56 systems, some of which are redundant or not used to their full potential. For example, we have two email systems and two phone systems. One new system has been brought online this year, and two are being retired. We need to continue to reduce complexity by reducing the number of systems, which can be accomplished through getting more out of existing systems.

Sections 4 and 5: Information Technology Operating Plan

As called for in the plan, 53 procedures have been published since July 2009 with 65 more in draft form (examples: new computer setup, hardware purchase, data center startup). The department has also developed multiple guidelines and traditions to better operate as a group. The core strategy for 2011 is standardize, simplify, and stabilize.