

Youngstown State University Information Technology Master Plan

Update – February, 2006

Executive Summary

Continued progress has been made to implement the recommendations in the Information Technology Master Plan and improve technology to support the teaching and learning, scholarship, and administrative and business operations of Youngstown State University. The attached summary provides a detailed update of implementation activities identified within the Information Technology Master Plan.

Among these notable achievements are the following:

- Thirteen classrooms in DeBartolo Hall and 2 classrooms in Beeghly Center were renovated over the summer months. Overall, 24 total classrooms have now been renovated and updated with standard multimedia equipment, moving closer toward the goal of providing multimedia equipment to 50% of all classrooms over the next three years. Additionally, six new mobile units are now available for classroom instruction.
- The network logon project has begun and a phased-in rollout will occur later in the year. A common directory service was also implemented and is currently being used to access the CUE-mail and dial-up systems.
- The Director of Network Services, having a background in wireless technologies, was recently hired to develop a campus-wide strategy and implementation plan for wireless deployment. A phased-in rollout will begin later this year.
- The Tech Desk, formerly the Help Desk, was relocated to the fourth floor of Maag Library. This relocation expands Tech Desk operations to include evening and Saturday hours to assist faculty, staff and students. A new permanent position was filled to increase support and hours of availability.
- A new IDL Broadcast Engineering position was also added to strengthen technical staff support for distance learning.
- A new software product, Clean Access, was deployed in residence halls to clean and secure student computers before accessing the network.
- Internet bandwidth was increased to address the growth in the application of technology to the curriculum. The university network was connected to the Third Frontier Network, providing high-speed access to inter-Ohio research activities.
- The YES Banner software solution, a comprehensive, fully-integrated suite of software products which will replace administrative systems over the next three years, has been successfully launched. Two major milestones occurred as a significant portion of the Finance module went live in July and the Advancement system closely followed in October.

Youngstown State University Information Technology Master Plan

Update – February 2006

Implementation Priorities

- A-3 **Establish an “Information Technology Advisory Committee”.**
Creating a new committee structure has been deferred until the realignment of the Information Technology Services organizational structure is completed. The YES Advisory Committee has been established to address technology issues specific to the Banner project. Members from Information Technology continue to participate in the Academic Senate Integrated Technologies Committee (ITC) meetings to address a variety of issues associated with technology. *Revisit recommendation in Fall, 2006.*

Year 1: Spring, 2004

- A-2 **Create and fill the position of Vice President of Information Technology.**
A Chief Technology Officer was appointed on an interim basis to the Executive Team – a Vice Presidential position has been deferred.
- H-1 **Include wireless access as an integral component of the infrastructure, beginning by piloting wireless access in Maag Library.**
The Pilot wireless access project initiated in Spring, 2004 provided wireless access to patrons in Maag Library. Twenty laptops equipped with wireless access were available for checkout within the confines of the library. *Phase I complete.* Plans to open the wireless access in the library to allow individuals to bring a laptop and access the wireless network in the library early Spring, 2006 are being finalized.
Phase II Underway.
- J-2 **Implement an integrated Enterprise Resource Planning (ERP) software solution, issuing an RFP, selecting a vendor, and begin project planning.**
Sungard SCT was selected to partner with YSU to implement the suite of Banner software systems, including Finance, Human Resources/Payroll, Student, Financial Aid, Advancement, and the Luminis Portal. Hardware required to support the SCT Banner systems was purchased and installed and project planning began in Summer, 2004. SCT consultants were involved in developing the implementation timelines and the overall project plan. The Implementation Plan and Project Definition documents were completed and are available for reference on the YES website at:
<http://www.ySU.edu/yes/planningdoc.htm> *Phase I complete.*

Year 1: Summer/Fall, 2004

- C-1 Implement wireless access for instructional use, beginning with a minimum of two college instructional buildings.**
The wireless project was temporarily placed on hold, due to the delay in providing network login IDs, the unexpected retirement of the Director of Network Services, budgetary implications, and the YES Project implementation. Plans to open the wireless access in the Library to allow individuals to bring a laptop and access the wireless network in the library early in Spring, 2006 are being finalized. An overall rollout institutional strategy will be developed in the Spring and Summer, 2006. *Phase II Underway.*
- C-2 Increase multimedia classrooms (fixed and mobile).**
Five newly renovated classrooms in Fedor Hall were equipped with multimedia equipment, establishing campus standards for basic multimedia classrooms. Four new classrooms were constructed in the basement of Maag Library, each equipped with multimedia equipment to accommodate courses taught in Communication and Theater. Six new multimedia mobile carts were placed into service and ten TV/VCR/DVD carts were put into service to replace and/or enhance existing equipment. *Phase I complete.*
- C-6 Establish classroom design procedures, incorporating design features in the classroom renovation project.**
Working closely with Facilities as classrooms are renovated throughout the campus, beginning with the five newly renovated classrooms in Fedor Hall, classroom design features are incorporated into the overall renovation plans to facilitate the use of technology in the renovated classrooms. *Ongoing.*
- D-1 Enhance distance learning classrooms and training.**
An additional Interactive Distance Learning and Collaboration classroom was opened in Health and Human Services (CUSH 3037) in FY05. The capabilities to support six concurrent academic courses taught at a distance were increased from 5 the prior year. The number of courses offered as interactive distance learning (IDL) courses increased from 7 courses in Fall, 2003 to 30 courses in Fall, 2004, and from 6 in Spring, 2004 to 27 in Spring, 2005. *Ongoing.*
- F-2 Equip classroom/labs with ADA compliant workstation/software.**
More than 200 licenses of MAGIC and/or JAWS software are accessible from labs in Maag Library, Business, Education, Health and Human Services, DeBartolo, and Meshel Hall. Both software programs assist vision-impaired computer users: JAWS is a screen reading program that reads the information from the screen; MAGIC enlarges the computer screen from 2 to 16 times the normal size. Five licenses of both MAGIC and JAWS are installed in each lab requested by the department or by Disability Services. *Ongoing.*

- I-2 **Implement enterprise network identification logins, using a directory service approach (e.g., LDAP).**
 The foundation for the network login (E-Directory) was successfully installed and implemented in FY05. Outstanding integration issues delayed the rollout of the network logon. A phased-in rollout of network logins started in Fall, 2005, beginning in Meshel Hall. A project plan is currently underway to phase network login ids to the entire campus by Fall, 2006. *Underway.*
- J-2 **Implement an integrated Enterprise Resource Planning (ERP) software solution – beginning with the *Financial System Implementation*.**
 The Finance Team began meeting in October, 2004 and spent the majority of the Fall and Spring focused on the Finance implementation. A major milestone to go-live with a significant portion of the Finance module and begin processing financial documents in Banner was accomplished in July, 2005. (Repeated above in Spring, 2004)
Phase II complete.
- J-3 **Complete the Degree Audit System (DARS) and integrate with enterprise administrative system, completing a majority of program encoding and transfer articulation equates.**
 Program coding for programs in the Colleges of Education, Engineering, F&PA, and Business have been completed, with a portion of programs in the remaining colleges partially coded. Transfer articulation equates have been completed for all feeder schools. Work continues on a daily basis to maintain and update transfer equates. Plans to identify a timeline for integration with the Banner software system and rollout strategy for students are being developed and will be identified by Fall, 2006. *Underway.*
- K-4 **Provide enterprise-level web portal system.**
 The Luminis Portal Team began meeting in July, 2005 and has recommended a phased implementation of the portal system. Phase I is planned to go live in January, 2006, with more than 15 areas involved in piloting the system. Phase I includes single sign-on, campus announcements, calendar, groups, and email, along with available Banner self-service applications. Phase II is scheduled to go live in April, 2007 upon completion of the Student, Financial Aid, and Human Resource/Payroll systems. *Underway.*
- MISC Internet 1 bandwidth was increased by 60% (14 Mbps to 24 Mbps) in Fall, 2004 to address the growth in the application of technology to the curriculum, including an increase in online coursework, mail traffic, and other demands placed on the network.
Complete.

Year 1: Spring, 2005

- A-1 **Establish ITS Division, realigning the ITS organization structure.**
 Planned realignment of ITS division is in progress and has been rescheduled to occur in Spring, 2006 to assess the implications of the change from the M204 mainframe environment to the Banner server environment. *Revisit recommendation in Fall, 2006.*

- D-4 **Strengthen technical staff support for distance learning, hiring an additional technical support position to monitor hardware/software while delivering courses at a distance, increasing evening/weekend coverage.**
 A new IDL Broadcast Engineering position was added in January, 2005 to monitor hardware and software while delivering courses at a distance, increasing evening/weekend coverage. *Complete.*
- E-2 **Establish an IT Initiative Advantage Fund, beginning to accumulate funds for Initiative Advantage Fund.**
 Postponed due to budgetary constraints and the human resources dedicated to current projects, making it impractical to implement new initiatives. *Deferred until FY06.*
- E-3 **Establish an IT Replacement Fund, beginning to accumulate funds.**
 Postponed due to budgetary constraints. *Deferred until FY06.*
- F-1 **Increase IT support and system availability, hiring additional Help Desk support and providing extended evening/weekend coverage. Increase hours of system availability.**
 The Tech Desk (formerly Help Desk) was relocated to the fourth floor of Maag Library in FY05 to provide an environment conducive to increasing hours of support. Beginning Spring, 2005, the Tech Desk extended their hours to include evening and Saturday hours. A new position was added to accommodate the extended hours of operation in the Tech Desk. Hours in the Instructional Technology Center have been extended every Tuesday evening until 8:30 p.m. *Complete with ongoing evaluation.*
- J-2 **Implement an integrated Enterprise Resource Planning (ERP) software solution – beginning the Human Resource/Payroll and Financial Aid System Implementations.**
 Considerable time was spent planning the strategy and overall modular implementation schedule. A determination was made that a simultaneous Financial Aid, Student, and Human Resources/Payroll implementation, based on the interdependencies of these systems, and the interfaces needed, would be the best approach. The Advancement system, which was tentatively scheduled to occur in FY07, began implementation in Fall, 2004. After hundreds of hours of training, the conversion of hundreds of thousands of records, days of data verification, and weeks of process testing, the Advancement system began processing in the Banner environment in October, 2005. (Repeated above in Year 1: Summer/Fall, 2004) *Phase III complete.*

Year 2: FY06 (July, 2005–June, 2006)

- C-1 **Implement wireless access for instructional use in a minimum of two college instructional buildings.**
 A top priority for the Director of Network Services hired in January, 2006, is to formulate a secure comprehensive campus wireless strategy and provide an analysis of associated costs to deploy wireless access, with the goal of identifying an implementation plan prior to the end of FY06. (Repeated above in Year 1: Summer/Fall, 2004) *Phase II Underway.*

- C-2 **Increase multimedia classrooms (fixed and mobile).**
 Classroom renovations and upgrades were a high priority in Summer, 2005, resulting in the renovation of 13 classrooms in DeBartolo Hall and two classrooms in Beeghly Center. Installation of permanent basic multi-media equipment in these newly-renovated classrooms was completed during the Fall, 2005. (Repeated above in Year 1: Summer/Fall, 2004) *Phase II complete.*
- C-6 **Establish classroom design procedures, incorporating procedures in classroom renovation project.**
 Monthly meetings were initiated with representation from Facilities, Office of the Provost, and Technology to coordinate the installation of standard multimedia equipment in renovated classrooms. (Repeated above in Year 1: Summer/Fall, 2004) *Ongoing.*
- D-1 **Enhance distance learning classrooms and training.**
 The number of courses offered as interactive distance learning (IDL) courses remained relatively stable from 30 courses in Fall, 2004 to 29 courses in Fall, 2005, and increased from 27 in Spring, 2005 to 32 in Spring, 2006. Several on-demand workshops are currently offered by the Instructional Technology Center to enhance IDL training activities, including “Teaching from the IDL classroom,” “Using SmartBoards effectively in the classroom,” and “Digital Imaging and Video” – information can be found on the website at: <http://ctl.yosu.edu/>. (Repeated above in Year 1: Summer/Fall, 2004) *Ongoing.*
- D-2 **Implement advisement-at-a-distance.**
 The Department of Health Professions is using mobile video conferencing equipment to actively advise students at Lorain Community College. Cuyahoga Community College has purchased similar equipment that is not yet functional, to incorporate the ability to advise students at-a-distance. *Underway.*
- D-4 **Strengthen technical staff support for distance learning, hiring an additional technical support position to monitor hardware/software while delivering courses at a distance, increasing evening/weekend coverage.**
 With the addition of one position in January, 2005, the current staffing is accommodating the distance learning activities. The need to add another position will be closely monitored and will be explored when the demand arises. (Repeated above in Year 1: Spring, 2005) *Ongoing Evaluation.*
- E-2 **Establish an IT Initiative Advantage Fund, accumulating funds.**
 An initial allocation of \$125,000 was reserved in FY06 to establish an IT Initiative Advantage Fund and to begin accumulating funds. (Repeated above in Year 1: Spring, 2005) *Underway.*
- E-3 **Establish an IT Replacement Fund, accumulating funds.**
 An initial allocation of \$375,000 was reserved in FY06 to establish an IT Replacement Fund and to begin accumulating funds. (Repeated above in Year 1: Spring, 2005) *Underway.*

- F-1 **Increase IT support and system availability, hiring additional Help Desk support and extending evening/weekend coverage.**
The addition of another position will be closely monitored and will be explored when the demand arises. (Repeated above in Year 1: Spring, 2005) The Cisco ‘Clean Access’ system was implemented in Fall, 2005 to minimize dorm connectivity issues. Additionally the Tech Desk has added service to students in the dorm by providing technical support to remove stubborn malware on their personal computers. *Ongoing Evaluation.*
- F-2 **Equip classroom/labs with ADA compliant workstation/software.**
Plans to survey the campus community are underway to update locations where ADA compliant software is available and to determine actions necessary to provide compliant software in every lab on campus. Several workstations are currently available in Maag Library to accommodate ADA needs. Working with Disability Services, an assessment of ADA compliant workstation needs will also be completed. (Repeated above in Year 1: Summer/Fall, 2004) *Ongoing.*
- G-1 **Expand IT training.**
An expanded list of training workshops offered by the Instructional Technology Center, focused on WebCT Vista, is available on the website at <http://ctlt.yosu.edu/>, along with several new “on-demand” offerings. Hundreds of hours of training workshops have been offered by SCT Banner consultants for both the functional and technical areas to implement the SCT Banner software solution. Workshops continue to be offered on a regular basis to the campus community on the use of those SCT Banner systems that are in production. Registration for available Banner workshops can be accessed from the YES project website at: <http://www.cc.yosu.edu/hr/bannerregistration.htm>. *Ongoing.*
- I-3 **Institute backup, restore, off-site storage for servers and desktops.**
Work has begun to collaborate with Ohio State University in their distributed disaster recovery initiative. The service level agreement is currently under review and plans are being formulated to identify critical hardware needs. *Underway.*
- I-4 **Implement and test disaster recovery plan.**
A disaster recovery initiative is underway in support of the ERP software implementation. Given the significant staff and financial resources associated with such an effort, focus will remain with the SCT Banner application and its underlying components. Collaboration with Ohio State University to serve as a disaster recovery site has begun, with a service level agreement currently under review. *Underway.*
- J-2 **Implement an integrated Enterprise Resource Planning (ERP) software solution, beginning the Student Information System Implementation.**
The fourth phase of the ERP implementation which includes implementation of the Student Information, Financial Aid, and Human Resources/Payroll Banner systems began late in 2005 and early 2006 and will continue throughout FY06 and FY07. A major upgrade to the software also occurred late in Fall, 2005, with significant resources

involved in testing and upgrading to the 7.0 software version. (Repeated above in Year 1: Summer/Fall, 2004) *Underway.*

J-4 Acquire classroom/lab space utilization software.

Third party software products are being investigated that will integrate with the Banner software solution. As the Banner implementation progresses, an implementation timeline will be determined and a projected acquisition date for classroom/lab space utilization will be identified. *Underway.*

J-5 Provide enterprise-level information/reporting.

An upgrade to the WebFocus reporting tool from Information Builders was evaluated during the early phase of the YES project and a software master license agreement was finalized late in 2005. A Report Writer Implementation project plan is currently being developed and will be completed in Spring, 2006. *Underway.*

K-5 Provide web content management software system.

Upon completion of the SCT Banner Luminis implementation, scheduled to occur in FY07, a planning process to acquire a content management system will occur. For the short term, provisions have been made to develop database driven web-based applications which include administrative areas for content contributors for high visible departments and offices. *Revisit recommendation in FY07.*

Year 3: FY07 (July, 2006–June, 2007)

A-4 Establish IT Board of Visitors.

A-5 Form Creative Media Services and strengthen web design.

C-1 Implement wireless access for instructional use *in a minimum of two college instructional buildings.*

C-2 Increase multimedia classrooms (fixed and mobile).

D-1 Enhance distance learning classrooms and training.

D-3 Adopt multimedia conferencing software and groupware.

E-2 Establish an IT Initiative Advantage Fund, *accumulating funds and developing established procedures for expenditures.*

E-3 Establish an IT Replacement Fund, *accumulating funds and instituting a surcharge on all IT purchases.*

E-4 Develop existing and additional IT funding sources, *dedicating a technical grant position to identify IT grant opportunities.*

- E-5 **Expand IT cost recovery *through chargeback, exploring an enterprise printing cost recovery turnkey system.***
- F-2 **Equip classroom/labs with ADA compliant workstation/software.**
- J-1 **Establish inventory management system to record/track IT hardware and software licenses.**
- J-2 **Implement an integrated Enterprise Resource Planning (ERP) software solution, *beginning the Alumni/Development System Implementation.***
The Alumni/Development system went live in October, 2005.
- J-6 **Acquire collaboration/communication tools, *providing calendaring and e-mail solutions.***
*The Luminis Portal Team began meeting in July, 2005 and has recommended a phased implementation of the portal system. Phase I is planned to go live in January, 2006, with more than 15 areas involved in piloting the system. Phase I includes single sign-on, campus announcements, calendar, groups, and e-mail, along with available Banner self-service applications. Phase II is scheduled to go live in April, 2007 upon completion of the Student, Financial Aid, and Human Resources/Payroll systems. (Also reference Year 1: Summer/Fall, 2004, Item K-4) *Underway.**

BEYOND Year 3 (July, 2007 and beyond)

- C-5 **Establish state-of-the-art experimental labs, *with high-end computer and server environments.***
- F-5 **Create an informal Internet sharing environment, *creating computer cafes and increasing availability and use of wireless networks.***
- H-2 **Enhance digital telephone services, *deploying Voice over IP.***
*Several changes on how the Metro site accesses the University network were made in FY06, including deployment of Voice over IP (VoIP) at the Metro site. Other sites will be assessed as needed. *Ongoing Evaluation.**
- J-7 **Provide high-volume document storage system *for viewing, distributing, printing, and archiving reports and documents.***
- J-8 **Provide high-volume digital media storage system.**
- J-9 **Evaluate and pilot smart card system *to provide access to systems and facilities.***

Ongoing/Annual Activities

Year 1: FY05 Ongoing/Annual Review

- A-6 **Establish written policies and procedures for “enterprise” issues related to information technology.**
A Technical Standards and Procedures Advisory Team was appointed in FY06 and has been charged with identifying and authoring technical standards and procedures supporting application maintenance and development in the SCT Banner environment. An evaluation to determine a method to address institutional issues such as privacy, copyright, etc., will be made once a new committee structure and realignment of the Information Technology Services organization structure is complete.
- B-1 **Create hardware/software standards for personal computing and communication devices.**
A minimum, preferred, and high-end basic standard for personal computing hardware has been identified and can be found on the Tech Desk website at: <http://helpdesk.ysu.edu/computerstandards.htm>. Basic multimedia classroom equipment and IDL equipment standards have also been identified and can be found on the MAC website at: http://mac.ysu.edu/mac_new/mm_classroom_equipment.htm and: http://mac.ysu.edu/mac_new/idl_classroom_equipment.htm, respectively.
- B-3 **Promote infrastructure/architecture software application principles.**
A conscious effort to refrain from modifying and/or customizing the Banner software applications continues, requiring any modifications or customization to be documented and sent forward to the YES Executive Committee. To date, no requests have been forwarded to the Executive Committee for review.
- B-4 **Create an IT standards subcommittee of the ITAC to establish interoperability standards for all applications.**
Members from Information Technology continue to participate in the Academic Senate Integrated Technologies Committee (ITC) meetings to address a variety of issues associated with technology, and has deferred creating a new committee structure, including the creation of the ITAC and an IT standards subcommittee, until the realignment of the Information Technology Services organizational structure is completed. (Also reference Implementation Priorities, Item A-3)
- B-5 **Improve integration between administrative and academic application systems.**
The foundation for the network login (E-Directory) was successfully installed and implemented in FY05. Outstanding integration issues delayed the rollout of the network logon. A phased-in rollout of network logins began in Fall of 2005, beginning in Meshel Hall. A project plan is currently underway to phase network login ids to the entire campus by Fall, 2006. (Also reference Year 1: Summer/Fall, 2004, Item I-2)
The course management system (including both WebCT CE and WebCT Vista) has been fully integrated with the campus e-Directory. Application-level integration of Web CT will be explored with the implementation of the Student system within Banner.

- D-5 Improve integration between instructional and administrative application systems.**
The integration of systems, including the course management system, will continue to be evaluated in the ongoing implementation of the Student, Financial Aid, Human Resources/Payroll, and Luminis systems.
- C-7 Establish “low-cost” desktop/laptop programs for students, faculty, and staff.**
Discounts are currently available for Dell Computer Desktops and Notebooks via the Bookstore website at: www.ysubookstore.com/. Additional programs will be pursued throughout the wireless implementation and deployment.
- E-1 Establish formal IT accounting/budgeting procedures.**
Expense categories (SOCs) for IT have been redefined, adding multiple new categories (Accounts) during the Banner Finance implementation, to provide the ability to better track annual institutional IT expenditures.
- E-4 Develop existing and additional IT funding sources.**
The Student Technology Fee was initiated in FY05 and increased in FY06. Funds were dedicated from the capital allocation from the FY05-06 biennium.
- F-3 Validate official YSU web pages for ADA compliance.**
Software tools were purchased to validate official YSU web pages, bringing the YSU website into ADA compliance with accessibility guidelines and best practices.
- I-1 Develop/implement comprehensive network security plan.**
The Director of Network Services was hired in January, 2006, and has already begun to develop a draft framework and outline for a comprehensive network security plan. As work progresses, an overall plan for distribution to acquire input and feedback will also be identified. Assistance from an outside firm experienced with security policies and methodologies in higher education is also being explored.
- K-1 Establish website design guidelines and standards.**
The Web Site Advisory Committee has developed design guidelines that are accessible on the website at: <http://www.ysu.edu/webadv.shtml>.
- K-2 Develop web policies and procedures.**
The Web Site Advisory Committee continues to meet and develop associated policies and procedures. Documentation is available on the website at: <http://www.ysu.edu/webadv.shtml>.

Year 2: FY06 Ongoing/Annual Review

- B-2 Establish enterprise technology purchasing procedures/processes.**
Enterprise purchasing procedures/processes have not been established and await formation of a new committee structure.

C-3 **Coordinate computer lab accessibility and operation across campus.**
Information regarding computer labs and schedules, overseen by departments and colleges, are available on the website at: www.maag.ysu.edu/complabs.html.

G-2 **Implement program to educate faculty, staff, and students about technically related federal and state regulations.**
Several workshops were initiated by the former Director of Network Services which were offered in FY05 in response to the Gramm-Leach-Bliley Act (GLBA). Upon his retirement, further activities were temporarily suspended. Activities will resume to work together with the Office of Training and Development to develop a formal training program incorporating routine ADA, FERPA, GLBA, and HIPAA training workshops to educate the campus community.

Year 3: FY07 Ongoing/Annual Review

E-2 **Establish an IT Initiative Advantage Fund review process, incorporating procedures and a review process to support IT projects.**

E-3 **Establish an IT Replacement Fund incorporating procedures and a review process to support IT replacements.**

K-3 **Develop process to monitor web content and copyright.**

BEYOND Year 3: Ongoing/Annual Review

C-4 **Identify specialized instructional equipment, documenting instructional information-based equipment.**

F-4 **Provide access to alternate networks, increasing redundancy capabilities.**
YSU became a sponsored member of Internet 2 in FY04 and extended the networked environment, connecting YSU to the ACCESS fiber ring. The connection to the Third Frontier Network (TFN) was completed in Fall, 2005, providing high-speed access to inter-Ohio research activities.

H-3 **Expand Internet II connectivity, evaluating full I2 member institutional status.**

J-10 **Create clearinghouse to share technology-related information, establishing a website with the latest security releases, patches, and software license information.**

The Tech Desk website was revised to include information pertaining to the latest virus threats, removal tools, and anti-virus applications with installation instructions and suggested solutions. The website can be found at: helpdesk.ysu.edu/virusprotection.htm. Additionally, a security administrator listserv is actively used by all system administrators to share the latest security releases and software patches and identify potential threats in a timely manner.