

Information Services

Annual Report 2005-2006

6-30-06

The Division of Information Services encompasses the several units that define University Information Technology Services (UITS). During this year, the Division continued a major effort centered around strengthening its efforts to more closely align itself with the University of Connecticut's primary central mission of academic, research and outreach services.

This report will provide a summary and status of the major technology projects undertaken during the year.

FY 2004-2005 major technology efforts included:

- Completed an IT Strategic Planning Initiative,
- Completed the implementation of Exchange, providing one common Email and Calendaring service for the University,
- Implemented a Firewall to protect University technology resources,
- Continued development of the North East Research and Education Network deployment, including linking Connecticut to Rhode Island, Massachusetts and New York,
- Acquired and implemented an Automated Call Distribution system for use in areas such as the UITS Help Center to provide enhanced customer support for technology assistance calls,
- Began a server consolidation initiative to conserve space and power resources,
- Continued the advancement of a matrixed call function for UConn technology users to provide seamless coordinated technology assistance between distributed help providers,
- Reduced LISTSERV Email distribution from hours to minutes,
- Worked to eliminate a dependence upon consultants to provide production support for the Student Administration system,
- Began an effort to eliminate the use of Social Security Numbers as system identifiers and limit their use in business processes,
- As part of the WebCT project a Learning Resource Tool (LRT), that has gained national attention, was created and implemented,
- Initiated the Human Capital Management project to replace UConn's obsolete HR system,
- Resolved, in cooperation with Facilities, a 20 year outstanding issue regarding backup power for the Data Center,
- Implemented wireless networking for the core campus,
- Worked to implement a number of BEST initiative process improvements.

These and other accomplishments, which follow, represent the exceptional work of many talented staff who are highly dedicated to supporting the mission and goals of the University of Connecticut and its students, faculty and staff.

University Information Technology Services

Division Accomplishments

I. Enterprise & Customer Business Applications

Student Administration – The first year of operational status for all modules of the Peoplesoft Student Administration System was completed. The goals for this past year were to establish stable and predictable operations and become more technically and operationally self-sufficient in the use and support of this system. The team continued with additional development activities in the Student Financials and Financial Aid modules rolling out new functionality to serve students and improve University operations.

This past year several functional improvements were completed in each area of this mission-critical system as follows:

Student Records - The Student Records module in many important ways serves as the core of the Student Administration system since much of the core student biographic, demographic and academic data is managed by it. This past year several important university decisions impacted on Student Records requiring significant changes. Notable among these changes includes the following:

- Continuing Education Reorganization – This reorganization required the reassignment of students and programs in the Allied Health and Family Studies programs to other academic areas. Additionally this change required that several processing functions, reports and data be modified to reflect the reorganization for existing and future students.
- Course Renumbering – This change required an expansion to the course catalog number to reflect new coding structures. Mostly affected were other feeder systems to the Student Administration system and modifications were required for the interfaces to these systems as well as modifications to some reports. Key among these is the Faculty Evaluation system which required significant modification to accommodate the new course numbering scheme as well as other changes to eliminate legacy system dependencies.
- SEVIS mandated changes – A major update to federal student exchange data management and reporting requirements required a significant system upgrade in order to comply with this mandate.

Several other improvements to this module were also accomplished to streamline operations including the following:

- Official Transcript Request – This enhancement provides operating improvements for the Registrar over the previous process and permits the batching of requests rather than having to request and process individual transcript requests.
- Early College Experience Instructors feed from Peoplesoft – This enhancement eliminates the duplicate data entry that has been required by the HR staff.
- Automate “T” grade expirations.

- WebCT Vista – modifications required to provide a seamless data flow between Peoplesoft and WebCT enterprise systems significantly reducing duplicate manual data entry and processing for WebCT.
- Special Payroll Lecturer Application Feed - a BEST project recommendation to speed up the Special Payroll business process.
- A total of 110 service requests were processed by Enterprise Applications staff to support various departments' requests throughout the University for the Student Records module.

Admissions - During the past year the team's primary focus has been on integrating the Peoplesoft Admissions module with other systems and databases in our effort to reduce the data entry workload on the Admission's staff. These improvements include:

- Integrating the external vendor – This provided online admissions application information to our applicant and applicant-prospect databases.
- Incorporated the Open House Reservation and Attendance process with the Admissions module thereby streamlining data entry and eliminating cumbersome spreadsheet entry/upload processes.
- Continued work on the complex problem of avoiding and cleaning up duplicate IDs in the system. Significant progress has been made on this aspect but there is considerably more to do.
- A total of 61 service requests were processed by Enterprise Applications staff to support various other departmental requests.

Student Financials - This past year efforts were focused on implementing the remaining functionality planned for this module. A considerable improvement was made, both in terms of service to students and business process, with the implementation of a self-service credit card payment capability. Other improvements implemented include:

- Enhancements to several processes including Escrow Refunds, TMS payments, Late Fees. Collections, 1098T processing, waiver and Title IV email notifications.
- Distributed entry of function-specific student transactions (e.g. Library, Parking, etc.)
- Improvements to student web-based self service capabilities with credit card, health insurance and account viewing.
- A total of 23 service requests were processed by Enterprise Applications staff to support various other departmental requests.

Financial Aid - As the most recent module implementation, our focus this year has been on continuing to roll out the remaining functionality for this module. EAA has struggled with the demands of on-going production support for this new system while simultaneously applying this new functionality. These new capabilities include:

- A new financial aid packaging process (FAST)
- Enhancement to load processing (Hold and Release updates)
- Financial Aid swapping

- Renewable Scholarship and Waiver rollovers
- Satisfactory Academic Progress
- US News Survey Report
- A total of 45 service requests were processed by Enterprise Applications staff to support various other departmental requests.

WebCT - During this past year the transition from the previous version of WebCT (Campus Edition) to the new version (Vista) was begun. The goal is to implement this new Vista system by Fall 2006, in order to replace the current Campus Edition version. This is a major upgrade and requires a considerable effort to accomplish this migration. Currently, both versions are operational however the retirement of the Campus Edition version is anticipated by late summer, 2006.

This past year a new multi-node clustered computer environment was deployed to provide additional computer capacity and improve operational reliability to accommodate the additional demands and workload that will be required by the new system. This load is considerably larger, by 3 to 4 times, than that performed by the older system. Last Fall, the course load managed by this system included 289 course sections and less than 10,000 enrollments. For Fall 2006 there currently exists 1,265 sections that include almost 30,000 enrollments. This volume will continue to grow throughout the summer. Currently, about 1,000 instructors use this course management tool for their instructional delivery.

WebCT includes an important technical improvement developed by UConn UITs staff in conjunction with WebCT Inc. and the UConn Learning Resource Center (LRC), to provide library support as part of the on-line course management experience. This facility, referred to as the Library Resource Tool (LRT), provides students with access to on-line library resources specific to their class. Information is then provided to faculty that identifies the library resources that are provided to the students. This facility provides the LRC staff with a powerful tool to leverage the information made available to them by the system to deliver a comprehensive set of materials directly to students directly. This enhancement has received significant interest nationally by other institutions and UConn has been proud to have played a part in making it available, not only to our students, but to the education community as a whole that uses the WebCT learning management system.

Human Capital Management System (HCMS) - This project is planned to be a two-phased effort with an initial implementation in October, 2007 and estimated completion in October, 2008. This includes the implementation of the Peoplesoft HR system with interfaces to required Core-CT systems, the Student Administration system and Financial systems. The current Genesys system will be replaced. The effort also includes the implementation of a datamart reporting solution.

During this past year pre-planning activities were completed and implementation activities were initiated for the Peoplesoft Human Capital Management Systems. The planning activities were performed in conjunction with BearingPoint, a systems consulting company, and selected members of UITs, Human Resources and Finance organizations. These efforts were directed at formulating a high level implementation

plan that included an assessment of system fit and resources required to accomplish the implementation. These activities were completed.

Staffing activities for a new project manager to direct the implementation effort and serve as a services manager for Human Resources support going forward were completed. With the new project manager on board the team has formulated a reporting structure, established the implementation team, initiated training activities and acquired additional consulting support with an array of expertise including Human Resources and Payroll functional knowledge, Peoplesoft product familiarity and technical expertise.

Several members of the Human Resources and Payroll staff have been engaged to participate at various levels in this effort. Some are committed full time to the project while others are engaged for portions of their time.

Several accomplishments for this project have already been realized including:

- Developed 81 business process flows for all primary HR and Payroll processes.
- Completed the technical installation and initial configuration of the Peoplesoft system on UITS system platforms. This configuration included the completion of 40 base tables that are used for data structure and coding definitions.
- Completed an initial payroll test cycle with sample test population using the new Peoplesoft system. Although this is a preliminary test with much work left to do, it is an important progress milestone in our overall implementation.
- Completed an initial conversion test of loading employee data from Genesys system into Peoplesoft system.
- Completed the proof of concept for the real-time data integration between external job search application and Peoplesoft system.

This project is currently on budget and schedule for the October, 2008 target implementation.

Financial Accounting Support - UITS provided continuing support to the university's accounting system, FRS. Thirty-six (36) separate vendor upgrade bundles were applied to this system during the year. A significant improvement in purchase order processing was accomplished by electronically expediting purchase orders to high volume vendors via email. This required development of a new web-based interface and PO tracking database. In addition, UITS developed an enhancement to provide improved vendor information consistent with state (DAS) vendor certification guidelines.

Oracle Application Server - UITS has acquired software technology that will assist with the consolidation and integration of our applications technology infrastructure and provide more powerful tools for applications development. The goal is to seek to integrate an array of software solutions and technology using a common and cohesive technology platform. This platform, Oracle Applications Server (OAS), is UConn's middleware solution for our enterprise applications. Two interim goals for this comprehensive product are to explore new workflow and rapid applications development tools.

The opportunities for systems integration and technology consolidation at UConn include the enterprise applications (Student Administration and Human Resources), the web-based solutions including Web-CT and the array of web-based technologies that are

employed for UITS's local development work including departmental applications, reports generation, planned web portal, workflow tools and others. OAS provides a comprehensive platform for integrating many of these technologies. This new infrastructure will be integrated with our Peoplesoft applications with Oracle's planned "Fusion" software release of their Student and Human Resource system in 2008.

This past year the installation the OAS server platform was completed and the exploration and use of these tools was initiated.

Program Assessment - In preparation for the NEASC accreditation process, and in conjunction with the Department of Undergraduate Education and Instruction, a solution was acquired and installed by UITS to assist with document management for accreditation planning and compliance. A pilot project to use this solution will begin in the Fall 2006 semester and UITS will be providing technical support going forward.

This past year, UITS assisted with the acquisition of equipment to operate the new system and installed and configured the new software for use. The system is undergoing final testing and configuration and will be available when needed in the Fall. This solution required the adoption of new technology (Cold Fusion) in order to make it available for use. If this solution is successful it will be built upon for a campus-wide implementation in a second phase of the project.

e-Portfolio - The e- Portfolio application was made available to the University Community in September 2005. With it, students can collect, organize and store valuable information relating to their collegiate experiences and career goals. It also provides the opportunity for students to reflect on their experiences at UConn. A student can also elect to share their portfolio, or portions of their portfolio, with anyone. These portfolio viewers also have the ability to create public and private comments about the portfolio.

A second module, which offers an enhanced advising environment, was designed, built and installed. This module integrates the Peoplesoft Student Information System and the e-Portfolio database for both students and advisors; providing a one-stop shopping format for presenting information pertinent to the advising experience.

An interim method was developed to allow a way for graduating students to keep their e-Portfolio information available even after removal from University systems. Students can now maintain their portfolio beyond graduation thereby enhancing and alumni relationship. The e-Portfolio application currently stores information for over 4500 constituents.

Effort Reporting - During this past year UITS initiated requirements efforts and an RFP to acquire a solution to assist with the Division's work on staff activities and effort measurements. This is consistent with our continuing efforts to improve project management and staff performance to enhance UITS predictability, make better information available about our resource utilization and improve our operating efficiency. Unfortunately a delay was experienced in accomplishing our plans for a pilot effort this year due to a failed RFP process. However, those activities have been restarted and a new RFP has been issued. It is anticipated that a selection during August, 2006 will be completed, and the implementation of a pilot in the Fall 2006 will be accomplished.

Identity Management (NetID) - During the year, UITS continued to support its legacy system identity management function with the aging NetID system. Although there are several needs that are being examined by the Identity Management group, we continue to

enhance this system to keep up with essential identity management requirements. Some of these enhancements were to:

- Allow alternate inputs into the ID system to create NetIDs for non-traditional students.
- Obtain a new feed from Student Administration to create NetIDs for High School CO-OP instructors. This will eliminate the need for these individuals to be separately entered into the Human Resources System.
- Provide a registration code to be mailed to new staff and students that will improve data security by allowing the individual to set an initial NetID password without using any part of their Social Security Number.
- Reduce the number of Student Administration ID mismatches being sent to the WebCT application.

There is currently a project underway that will generate a new Personal ID (PID) that will be used to replace the Social Security Number for the One Card and Library systems that currently rely on SSN. Scheduled completion of this effort is January 2007.

FAMIS - The FAMIS system is an acquired enterprise software solution supporting the facilities management, maintenance, operations and real estate management functions for the University. An innovative implementation and operating approach to this solution was selected using outsourced services to implement this product and operate it on an ongoing basis. The project is primarily a vendor-managed implementation; however UITS has and will continue to have involvement with this solution for the purposes of systems integration, authentication of system users as well as regular operations. We expect that at sometime in the future we may assume operational and maintenance support responsibilities for this system, however, this is a future decision.

During the past year several interfaces were developed for this system including a solution to substantially reduce the time required for purchase order processing using this new system. In addition, interfaces for the chart of accounts, invoices, vendor payments, and receiving were developed. A new user authentication solution was implemented that provides secure access to UConn-authorized users for this remotely operated system.

Web Applications - The Web Applications group provides support for department-specific needs using web browser-based Internet-accessible technology. UITS developed several department-specific web applications this past year including:

- Purchasing: Online P.O. - Purchasing can now review Daily Purchase Orders submitted by departments online and then send them to vendors electronically the same day versus the 14 days that it took previously to send the P.O.s by USPS mail. This need was identified by the BEST initiative.
- EHS Training Registration and Schedule - All registrations for the Environmental Health and Safety's training are now processed completely online using a web-based registration tool developed by the Web Applications group.
- CLAS Program Major Change - This application provides information to a majority of undergraduate students (College of Liberal arts and Sciences) to view their major information and submit a change of major request online.

Website Development and Support - UITS provides technical support to assist department users with the development and maintenance of websites specific to their area. Departments vary in their ability to support their own websites and the UITS Web Development Lab provides this additional support to ensure that our general population of users can access information via the web in order to make the best user of available university resources. These websites are usually maintained on a central web server managed by UITS.

During this past year the Web Lab provided support for the following websites:

- A comprehensive website for the *Stamford campus* was developed that included a complete redesign including home, students' and faculty and staff web-pages, phone directory, faculty-staff profile pages, and pages for the Bursar, Registrar and Student Life. Redesigned campus academic program sites including psychology, sociology, economics, human development and family studies, biology program, seaweed marine biotechnology lab, women's studies.
- A new website for *The Institute for Political Social Work*.
- A new website and two web applications for property management and project tracking was developed for the *Office of Capital Project & Contract Administration*.
- A new *Journalism* website was developed including an Alumni tracking facility.
- A new website for the *Information Technology Strategic Plan*.
- A new project website for the *Wireless Project*.
- A new project website for the *Social Security Number Elimination Project*.
- A new website for the *New England Association of Schools and Colleges (NEASC)* accreditation project.
- A new website for the *Program Assessment pilot project* for the *Department of Undergraduate Education*.
- New website for the *Department of Public Policy, Masters of Public Administration Program, and Masters of Survey Research*
- Improvements to several websites were accomplished including *Wireless Project, Asian-American Cultural Center, Software Licensing Group, Transfer Programs, Writing Center, ChildLabs* and others.

Other Applications - UITS provided applications development support for several other systems including the following:

- Completed Bursar interface with *Pyramed* application for *Student Health Services*.
- Completed *Pinnacle Phone system* conversion to Citrix, along with several other Pinnacle enhancements.
- Completed several enhancements to the *ImageNow* application for *Financial Aid*.
- Revised two *Budget workflow applications*.

- Designed and developed a customized *overtime management system* for UConn Facilities Operations to augment the planned *FAMIS* facilities system.
- Implemented a pilot single sign-on application (CAS) for WebCT and other new applications.
- Developed and implemented enhancements for the *USD help desk ticketing system*.
- Supported *Public Safety* for their *payroll* and *locksmith services* applications and others.

II. Customer Support & Relations

The Customer Support & Relations unit continued to improve upon UITs customer support this year by merging all “help functions” and establishing the area of Help Center and Problem/Change Management. This area includes the help center, accounts, telephone operations, and the problem/change management service providers, creating a tighter collaboration and consistency for all first level customer service delivery.

Production Problem Management System – Unicenter ServicePlus Service Desk (USD) - Enhanced the existing problem management system to provide failover assurance. USD is a key component that will be utilized in the realization of a true UConn “matrixed” help function. This year the departments of UCIMT, CUE, and Residential Life were brought on to the common problem management system.

Improved Telephone Calling System – Implemented an automatic call distribution (ACD) system. This has improved the phone support infrastructure for the help center and telephone operations areas which has improved department service and support overall.

Hardware Support - Established a hardware life cycle support program for the university.

Macintosh Support – Continued discussions and improvements for overall Macintosh technical service and customer support for the UConn Macintosh community, working with an ad hoc group that was formed from UITs, the Co-op, and department service partners.

Software Licensing - UConn’s software licensing group (SLG) secured additional license options for the following this year: SPSS, SPSS AMOS, Macintosh OS 10.4, Respondus (a Windows application that enhances the functionality and usability of the WebCT quiz), and LabVIEW (an easy-to-learn, graphical programming language and development tool designed specifically for scientists and engineers, with built-in functionality for simulation, data acquisition, instrument control, measurement analysis, and data presentation). See <http://software.uconn.edu> for details.

Microsoft Office Updates - All UConn employees can now upgrade to the latest version of Office products (Word, Excel, PowerPoint, Access, and Outlook) via the web using the newly established web front-end. Visit <http://officeupdate.uconn.edu> for download information.

Standardized Operating procedures – Refinement of all standard operating procedures was continued for the Help Center and Technology Support Services. This has resulted in enhanced service and support to our customers.

Matrixed Help Function – The building of a unified support structure for all UConn affiliated Help Desks through *Help Centers Unite* was again advanced. See <http://help.uconn.edu>.

III. Information Technology Security & Policy

Policy Development – A Wireless Access Policy and associated Wireless Security Standards and a Social Security Number policy were developed and published during the past year. In addition the Individual Responsibilities with Respect to Appropriate Use of IT Resources policy was updated to more clearly clarify the University's position with respect to adherence to Copyright laws.

Improvement of IT Security – Several initiatives were undertaken to improve IT security for the University.

IT Security Training - IT Security Awareness training materials were developed and distributed to departments. These materials are available at www.itpolicy.uconn.edu.

Peer to Peer - Changes to the handling of Peer to Peer (p2p) traffic on the campus network were implemented by limiting the network speed of p2p applications. Beginning in the Fall 2006 the default p2p applications for all users of the network will be blocked while providing a web application that allows authenticated users the ability to request unrestricted p2p services for legal use.

IT Risk Assessment / Business Continuity Planning - A documented process and forms were developed to enable departments the ability to perform their own IT Risk Assessment and Business Continuity Plan. After successfully piloting the process with several departments, the instructions, documentation, and templates have been made available at www.itpolicy.uconn.edu.

Staff Confidentiality Acknowledgement - A UITs Rules of Conduct with Respect to Confidential Information document and Acknowledgement Form was developed, which all members of UITs have signed.

PC Network Registration - The previously student-based PC registration and compliance system was expanded to a campus-wide system (NetReg). In addition, a GuestReg system was also implemented to allow individuals who did not have a valid NetID to obtain network access.

Firewall Implementation - A year-long effort of research, testing, acquisition and implementation was completed culminating in the currently running of firewalls on Uconn's Internet border and the UITs server farm. The migration of server farm

systems to go behind the firewall has begun. Over the next year we will continue the migration process.

Credit Card Security - The Security group led the effort to develop a plan for ensuring that areas of the University that currently process credit card payments were complying with the security requirements as outlined in the Data Card Industry Data Security Standard. As part of this effort, the Payment Card Industry (PCI) questionnaires that the various University departments submitted were reviewed, vulnerability scans were carried out as needed, follow up interviews to discuss apparent security gaps were completed and a report of findings to Internal Audit for their review was issued.

HIPAA - The Security group, in close collaboration with DOIT, Student Health Services and Speech and Hearing, completed a HIPAA Risk Analysis which resulted in a comprehensive Risk Analysis document.

Public Safety - Over the past year support to Public Safety was provided for a failing firewall configuration as well as assistance in designing a new firewall infrastructure which UITS now supports.

Use of Social Security Number as Identifier - Working with a task team established to implement the new Social Security Number policy, some progress toward eliminating the use of the social security number at the University was made. A website <http://ssn.uconn.edu> has been created that explains the project and the progress made to date.

Data Protection - Work to protect the University's data was continued and the following was accomplished:

- Created a web presence for University Data Oversight (<http://its.uconn.edu/governance/udo/>) which includes a Table of Accountability listing the data steward, data custodian and data administrator for the various subsets of University data.
- Working with the named data custodians several guidelines/standards have been developed and published for dealing with University data: Best Practice Office Procedures for Dealing with Confidential and Registered Confidential Data; Physical Security Standards, Standards for Backups; Electronic Data Transport Standard. These documents are available at <http://itpolicy.uconn.edu>. Over the next year the data custodians will continue to meet in small groups and as a large group to continue to develop documents to assist the University in protecting its data.

Project Management – Refinement and reinforcement of the methodology that UITS previously adopted was continued. A continuing effort was also expended to maintain project related documentation on the intranet and report our progress to management. A temporary effort tracking scheme that helps the organization keep track of our project and non-project efforts was developed and implemented. Over the next year the hope is to be able to implement a more sophisticated tool that will enable better tracking of the time expended on various initiatives. Development of in-house training in our methodology and the piloting of that training program has begun.

Participated in National EDUCAUSE 2005 Conference by delivering a poster session entitled: “Developing Effective Turnover Procedures”.

IV. Computing Technology Infrastructure Support

Computing Technology Infrastructure, which includes the areas of Server Support, Data Management Services, and Operations and Production Services, has achieved the following during FY 2006.

Server Consolidation - In FY 2005 the zSeries Integrated Facility for Linux (zLinux) System as a platform for server consolidation was setup. This fiscal year many services have been deployed to this platform. The services currently include ePortfolio for students, several instances of LDAP to support identity management, Central Authentication Services (CAS), FTP, mail routing (personal name), and other services. This environment also allowed the setting up of Linux images for test and development without the cost of an additional infrastructure.

Consolidated Oracle Database Server - The database for the ePortfolio service to the Consolidated Oracle Database Server was successfully migrated. Other services currently running in this environment include Paybase32 (a check writing system for Accounts Payable) and USD (the Help Center’s problem management system). Migration of the AdAstra service (room scheduling for the Registrar’s Office) is imminent.

Improvements to Physical Security - A new physical security access policy was developed and implemented. This policy imposes further restriction on who can enter the Data Center with their cardkey. Those who do not have cardkey access are now required to sign in. Further restriction have been imposed on access to server cabinets by locking them unless a server support technician is working on them.

Mail Services:

Exchange System - In addition to the completion of the Exchange migration, significant improvements were made to the management of Exchange/Active Directory accounts. The ID System pulls identity information from a variety of systems of record. As employees are added or deleted from the ID System, they are added or deleted from Exchange. Significant improvements have been automated for the archival of Exchange accounts and deactivation of accounts in Active Directory as well. Both of these help to ensure that only authorized employees are gaining access to central IT facilities.

LISTSERV Improvements - The Listserv mail distribution processes have been improved significantly, reducing delivery times from many hours to minutes for large lists.

SPAM - Three Barracuda SPAM Appliances have been acquired to better control SPAM.

Blackberry Services - Installation and configuration of servers have been accomplished to provide a stable Blackberry service for our customers.

z/OS 1.4 Upgrade - The mainframe (IBM 9672-T16) operating system was upgraded, which runs our legacy services (FRS, Genesys, ...), to z/OS Version 1.4. This is the last version of the operating system that will be able to run on this platform. To prepare for this upgrade, a number of other software systems needed to be upgraded, including, the BMC In-Control Products and ACF2, both of which were significant efforts. The In-Control products provide scheduling and automation tools. ACF2 is the security system for the mainframe and controls access to it. An upgrade to the SyncSort software was also required.

DB2 V7 Upgrade - A project was initiated this year to upgrade DB2, our mainframe enterprise data base system, to Version 7. This is a significant effort and impacts all of the UITS supported legacy systems. A successful upgrade to the Budget DataMart to Version 7 has been completed. The remainder of the DB2 subsystems will be upgraded on July 15, 2006. This has been a major collaborative effort on the parts of SSG, DMS and EAA.

Product Elimination - Through careful analysis elimination of the Data Accelerator product from the z/OS system this year was completed.

z/VM Upgrade - The production VM operating system was upgraded on the zSeries 890 to z/VM 5.1 to provide the latest features of this operating system to our customers.

Storage and Backup/Restore - Several projects dealing with enterprise storage were completed during this year including:

SAN Directors - Two new SAN Directors were purchased and installed to accommodate expansion of our server base. These provide servers redundant connections to the enterprise storage system.

Enterprise Storage System (ESS) Replacement - Considerable planning and analysis was accomplished to prepare for the RFP for a replacement system for our existing ESS infrastructure.

Automated Tape Library (ATL) Expansion - An expansion cabinet was added to the ATL to accommodate additional slots for tape media storage. This reduces the amount of manual interaction required in maintaining the backup system.

Silo Upgrade - A significant upgrade to our STK silo software was performed. This resulted in a savings of \$5,000 annually.

PeopleSoft Infrastructure Support - There has been a great deal of work done on the infrastructure associated with the Student Administration and Human Capital Management Systems.

pSeries 670 Upgrade - The p670 infrastructure was expanded to provide a development environment for the UCHC Human Resources Project and a production environment for the Tivoli Storage Manager service. This included the purchase of 8 additional CPU's and 16 GB memory and other interfaces to connect to the network and the SAN.

UCHC HR Project - Installed and configured the logical partition (LPAR) on the p670 to support the UCHC HR Project. This included the assignment and configuration of storage and the Tivoli backup agents. The staff worked closely with UCHC staff to resolve problems.

PeopleSoft 8.9 Version - Set up PeopleSoft 8.9 infrastructure to support the planned migration of Student Administration to this version. In the end, it was decided not to move Student Admin to this version, but the work was not wasted since we needed to build the environment for the Human Capital Management System.

Oracle - An Oracle 10g environment was set up to support the Human Capital Management Project.

Netscreen Firewalls - The Netscreen Firewalls were upgraded to high-availability mode in preparation for migration to the new firewall. This involved considerable effort in the form of a network migration on the server systems.

FortiNet Firewalls - The PeopleSoft infrastructure was migrated to the new enterprise FortiNet Firewalls. The same policies that existed on the Netscreens were configured on the enterprise firewalls.

AIX 5.3 - All LPAR's except the one that provides web services for the Student Administration system were upgraded to AIX 5.3.

Windows Server Infrastructure - Several projects involving Windows servers were completed this year.

Athletics - Responsibility for the servers in the Department of Athletics was moved to UITS. A new fileserver for Athletics was also set up and configured to support their CyberSports application for Football Recruiting. The file server, in addition to providing the CyberSports functionality, will replace their old and inadequate Novell server.

Public Safety - Responsibility for the servers in the Department of Public Safety was moved to UITS. A plan for server consolidation was developed to meet their needs and have been working to implement the plan. A server to meet the needs of the new Fire Marshal's Office has been set up and is being maintained. An SQLServer for this environment was also setup and is being maintained by UITS..

Novell Services - The departments of Payroll and the Budget Office were migrated to our Central Novell server after their server crashed.

Library - The Library Exchange users were migrated to the UITS-supported Exchange system for about a month while Library technicians recovered from a hardware crash.

Student Administration Data Mart (SADM) - The storage for SADM was migrated from a local disk to the enterprise storage system to provide this service with additional disk storage. This also allows for additional increases in storage as needed very easily.

PyraMed - The PyraMed client software was installed on Citrix for Student Health Services. The initial plan was to eliminate the use of the client completely, but that proved to be untenable. The Citrix service serves the PyraMed users who do not physically reside in the Student Health Service building.

Password Synchronization - A mechanism was developed to synchronize the NetID and Active Directory passwords. A secret question/secret answer mechanism has been provided.

Wins - Wins was upgraded to Windows 2003 to support the needs of UCIMT.
Central Authentication Services (CAS) - CAS has been installed and configured as a mechanism of supporting a web-based single sign on facility. This was motivated by the FAMIS project, which is outsourced to the company. FAMIS requested access to our LDAP server, which would have presented a security issue.

Active Directory - Executed numerous Service Level Agreements with University departments for Organizational Units (OUs) within the central UITS Active Directory. This is significant in that it shows the collaboration and consolidation that exists in the distributed UConn IT community.

Oracle Application Server Environment - The Oracle Application Server infrastructure was purchased, installed and configured. The Oracle database needed to support the Oracle Application Server environment was also created.

Domain Name Services (DNS) - Three servers for the DNS service were purchased. One replaced a very old server, a second one was installed in the Library to provide redundancy that can live through power outages in the Math-Science Building, and the third will be placed off site at either DoIT or the Safe Harbor facility. This greatly improves our internet services in the event of power or other physical disruptions.

WebCT Vista - The servers and load balancers required to support the WebCT Vista environment were installed and configured. Improvements such as automated failover and the set up of flashcopy have been or are close to completed.

iWay Adaptor - The Information Builder's iWay adaptor was purchased and installed. The project to get this installed and functional is well underway. This will allow us to eliminate software from our VM system.

Shared Mainframe Account Project - A project to eliminate the many mainframe accounts that were being shared by functional users within departments was completed. Since the sharing of accounts impacts accountability, an alternate solution was identified that addresses this issue

ePortfolio - The work necessary to bring ePortfolio into production was completed. This required set up and configuration of a zLinux instance, set up and configuration of Apache and TomCat, and set up and configuration of Oracle 10g on the Consolidated Oracle Database Server.

V. Networking & Telecommunications

Cellular Telephones – Services utilizing three cellular providers was continued this year. To improve service passive antennas in areas of poor coverage were installed.

Beeper System – An RFP to bid out beeper services was performed and the contract was awarded to Aquis Communications. This contract decreased our cost and provided better overall coverage for our customers.

Automatic Call Distribution System – An RFP for this service was issued and awarded to T-Metrics. This system was UConn’s first entry into the VOIP technology. It has brought us into a new area of telecommunications. The system was installed in April and we currently have six (6) departments on the system. The reports provided by the system have allowed departments to determine exactly how many staff they need to provide customer service to their students and staff.

Telecommunications Traffic Study – A network traffic study was conducted which resulted in the removal of 7 PRI circuits and provided an annual savings of \$20,000.

BEST Committee - Participated in the development of a plan for the University to follow in the event of a natural, man made or other type disaster. This BEST initiative delivered a plan that is in the process of adoption by the University.

Telecommunications Fiscal Group

Billing-Inventory – Committees have been setup to determine the present and future needs in the billing and inventory area.

Project Financial Tracking – Monthly meetings have been established to track all expenses associated with each project.

BO-12’s – A new procedure has been established for all BO12 billing to outside contractors and Architectural Engineering Services. Consistency and timeliness in billing were the drivers.

Prevailing Wage – A Connecticut wide prevailing wage was established to be in force until June 30, 2007. We are also actively challenging some Labor Department interpretations of the current prevailing wage legislation through William Kleinman, Attorney General at UCHC.

Networking Engineering & Design

Network Events / Construction/Renovation Activity – Construction and renovations for various projects included:

- Burton Football Complex – OSP/ISP work to extend the outside plant to the facility as well as extending the outside plant to complete a ring around the campus for future telecommunication expansion. Also designed the inside plant for the building occupants.
- Soccer/Softball/Ice Hockey - upgraded the network, (voice & data) to these locations within the Athletic Complex.
- OSP North Garage – Upgrade the outside plant extended to the North Garage to allow for future growth.
- Fenton River Monitoring Station - Installed new equipment to allow for network access for the Fenton River Monitoring station.
- Campus Wide Utility Monitoring – Upgraded the wiring and switches in over 100 locations on campus and created network infrastructure both logical and physical to allow for Facilities to monitor utilities from the network.

- Bethel Cooperative Extension – Re-wired complex, upgraded data switches and connections.
- Hilltop Apartments – Provided support for all of the code compliance work that was performed here.

WAN/LAN Upgrades – Improvements and changes to the network infrastructure included:

- Installed additional CISCO 6500 routing centers on the Storrs campus and several of the regional campuses to improve traffic flow and diminish the single points of failure in the data network.
- Upgraded traffic shaping equipment to better monitor network traffic usage on both the student and administrative networks.
- Updated switch configurations on all CISCO equipment to maintain currency.
- Upgraded the network operating system to native IOS.
- Installed and began testing Server Farm and Network Core Firewalls in conjunction with the various UITS security initiatives.

Network Master Plan – Buildings upgraded from those identified in the network master plan. Initial project phase required the electronics in these building to be upgraded first.

- Dodd Center
- Torrington Campus(this included wiring and new telephone system)
- Budds Building
- Wilbur Cross Building
- Psychology Building
- Arjona Building
- Torrey Life Sciences
- Avery Point Campus
- Math Science Server Farm
- McMahon North and South Residence Halls
- South Campus Residence Halls
- Alumni Quad Residence Halls
- Northwest Campus Residence Halls

HuskyVision – Installed a video feed for monitoring the construction of the Burton Family Football Complex. Removed all associated equipment, taps and power supplies from all residential facilities on the main campus.

Wireless – Wireless access points were installed in 31 locations on the campus to complete the Phase I implementation of the project. Defined and planned the Phase II deployment out to the regional campuses.

Construction Projects - The following projects were completed over the past year. Involvement was related to wiring, review of design specifications, review of part submittals, designing networks (voice, data, video) and site inspections.

Psychology Animal Care

School of Social Work
Hartramft Building
Law Library
Student Union
Museum of Natural History
West Hartford Campus Library

VI. Connecticut Education Network Advanced Services Center

As an externally focused outreach activity, the Connecticut Education Network Advanced Services Center (CEN-ASC) continued its role in providing advanced networking design, implementation and support services to the Connecticut Education Community. During this year, the CEN-ASC completed implementation of the Nation's first all-optical K-20 network. The CEN-ASC also became one of the State's largest and probably it's most advanced Internet Service provider, leveraging the University's investment in Internet2 and other technologies to provide services to K-12 schools, college campuses and workforce development efforts.

Also during this year, the CEN-ASC participated in and led portions of the creation of a Connecticut based non-profit organization to provide a regional research and workforce development fabric through advanced research networking for Connecticut, Rhode Island, Massachusetts, Maine, Vermont, New Hampshire and New York.

Highlights of the CEN-ASC Program

- Requested to contribute significant staff resources to the build out of a ground breaking 4th generation internet backbone for Internet2. Upon completion in 2007, the new Internet2 Network will be the world's most comprehensive hybrid optical network, and will serve as an interconnect not only for American but also International research and education uses.
- Provided program leadership and implementation talent to the Connecticut State Government effort to link every K-12 school district and every college campus with each other using a high-speed, state-of-the-art network. (CEN)
- Provided advanced networking support to the Institute for Exploration at Mystic Aquarium and the Department of Marine Sciences expeditions.
- Supported the State Department of Education's infrastructure grant program by writing guidelines and evaluating grant awards in order to advance infrastructure in Connecticut schools.
- Provided direct technical support to dozens of school districts in cities and towns throughout Connecticut.

