

Information Services

Annual Report 2006-2007

7-6-07

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 2006-2007 major technology efforts included:

- Implemented self-service functionality for the Financial Aid module that is saving countless hours of staff resources,
- Upgraded and enhanced email communications infrastructure,
- Continued the Firewall implementation to protect University technology resources and to address IT audit concerns,
- Continued integration of the North East Research and Education Network and Internet2 services to reduce state's overall expenses by nearly 30%,
- Implemented defined Macintosh computer support for the campus,
- Continued the 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 by moving five (5) additional areas onto the system,
- Implemented a new student email system,
- Implemented an academic assessment system for, and participated in, the NEASC reaccreditation process,
- Implemented the enterprise version of the WebCT/Blackboard course management system and retired the legacy version of the software,
- Continued the Human Capital Management project to replace UConn's obsolete HR system,
- Partnered with Public Safety to provide IT support for their technology infrastructure through the creation of a Service Level Agreement,
- Continued implementation of the Network Master Plan and expanded wireless networking for the core and regional campuses,
- Participated and presented at the FAIT sessions.

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

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.

The overall goals for the initial implementation of this system will be to maintain the current human resources applications functionality while taking advantage of the new technology being made available, and position the University to deploy new features offered by this modern solution in the future.

During this past year staff worked on various implementation activities for the Peoplesoft Human Capital Management Systems. The implementation activities were performed in conjunction with consultants, and selected members of UITS, Human Resources, Payroll, Finance and Student administration organizations. These efforts were directed at designing the business processes, and aligning the Peoplesoft HCM system with the business process.

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:

- Completed the design phase for Recruiting and Payroll Processes.
- Completed the proof of concept for Single Sign-on using net id
- Initiated enhanced unit test of Payroll processes.
- The following major business process enhancements are realized during the design phase:
 - Electronic recruiting
 - Adjunct hire
 - Electronic payroll authorization
 - Longevity/Seniority calculations and payments
 - Annual salary increases
- The business process enhancements are communicated by Human resources Management to the university community as part of the overall change

management. These enhancements received positive feedback from the university community.

This project is slightly delayed, but remains on budget. It is scheduled for a February, 2008 target implementation.

Student Administration System

All modules are in production including all Phase 2 tasks for the Financial Aid and Student Financials modules. This has been a busy and productive year for the Student Administration System Technical team providing new development and major enhancements to Student Administration, production support, support to other UITS projects.

Activities for each module area are summarized in the following sections.

Student Records module

Significant student records enhancements include:

- Resolution of ID System, Genesys System, Student Administration System, and Vista System interface synchronization issues.
- Course Renumbering
- Lead-in Header data entry component and auto field calcs. Has saved Technical Team 7 weeks of 1 FTE.
- Downline elimination project – eliminated creation of STUBIO Focus file, Athletics file and Law School files.
- Faculty Evaluation system enhancement to include Secondary Instructors
- Additional reporting capabilities were provided for Transfer Credit area of Admissions and the Transfer Equivalency process was enhanced.
- The team developed a preliminary project plan for tasks related to data structure changes with Campus Solutions 9.0 Upgrade.
- Service requests completed: 193
- Production support requests completed: 154

Admissions module

Significant admissions enhancements include:

- Prospect duplication ID elimination automated which has eliminated the need for hundreds of hours of staff time spent on researching duplicates and manual cleanup. Approximately 13,000 duplicates are generated each year from feeds to Admissions module.
- Automation of prior approval of transfer courses to self service.
- Create Program Source Equivalency process.
- Modification to email admittance letters to Graduate students.
- Ongoing removal of social security number from reports and extracts where not required.

- Service requests completed: 56
- Production support requests completed: 53

Student Financials module

Significant student financials enhancements include:

- Collections enhancements, Letter 2 processing, and Pre-collection Letter.
- Self Service eCheck Payments (TouchNet). Real time processing of electronic check payments. A huge plus for students and Bursar's office.
- DAS feed and receipt of payments of accounts in the collections process from state income tax returns.
- Completed Late Fee process restructuring.
- Reengineering of TMS Payment Plan Deferrals, Group Post charge reversals, and Summer Charges processing.
- Implemented PID changes as that project impacted SF.
- High School CoOp billing process.
- Positive Pay implementation. Generate a feed of all checks written. This is sent to the Bank of America on a daily basis. This enables the bank to identify any counterfeit checks.
- Assisted Student Affairs group with change requests for content of interface fed to them. Staff also assisted SAIT by accommodating their changes from their new system feeding charges into SF.
- Migrating mainframe jobs to the process scheduler. This reduces effort on the part of staff at the Bursar's office. Since the jobs are now automatically scheduled at the appropriate times, it will reduce the need to manually create schedules of jobs to be run on a daily basis.
- Enhance escrow refunding process to allow for a smoother process by Bursar's staff.
- Create reports for Health Services to enable them to better track students requiring the university Health Insurance, and the ability to track students either adding or dropping this insurance.
- Service requests completed: 60
- Production support requests completed: 74

Financial Aid module

Effort has focused on the completion and implementation of Self-Service and continued Production Support tasks. This solution *"has dramatically improved customer service and created greater efficiencies."* A Significant effort (over 750 hours of work) went into completing the Self-Service customization and it proved to be well worth it. The Department of Financial Aid Services reported that the process of receiving information from students has become virtually paperless, requires very little manual intervention, and has eliminated logging stacks of thousands of

paperwork packages. The cost savings was tremendous and the time for students to take action on their Financial Aid awards was reduced significantly.

More students had taken action on their award packages in a shorter period of time because of Self-Service than any other previous year. Over 1,000 students had taken action on their awards within the first 24 hours of implementation. It had taken a month to get that much information back in the past years. Very few of those packages required an officer to manually review them, while in past years every one would have had to be reviewed. As a result, funding from aid sources was committed in a much shorter time.

As well as the new functionality listed below, the team made enhancements to accommodate the new federally mandated Academic Competitiveness Grants (ACG/SMART) program.

Significant financial aid enhancements include:

- Federally Mandated Modifications to FISAP
- EduVenture Needs Reporting
- Satisfactory Academic Progress Process Modifications (SAP)
- Real-Time Anticipated Aid processing to Student Financials
- Service requests completed: 131
- Production support requests completed: 85

Student Administration System Production Support:

- 8 PeopleSoft updates/fixes (Bundles 13, 14, 15, 16, 17, 18), Financial Aid Critical Fixes 2007-2008 ACG, SMART Grant COD Reporting & Student Financials, 2006 1098T Prior Year adjustments, Final INAS-FM Critical Fix & Pell updates for 2007-2008 Aid Year processing and ASG/SMART Financial Aid Fixes were applied during the year.
- Supported AIX 5.3, PeopleTools 8.22 and Oracle 10g infrastructure upgrades
- PeopleSoft 8.9 Upgrade continued to test the application processes after completing the initial phase of converting SA 8.0SP1 to HRCS 8.9
- Coordinating getting RFI survey questions answered for all vendors including: Oracle, CedarCrestone, IBM and Fujitsu. Worked with Management, Server Support and DMS group. Each of the vendors indicated they had never received such a complete survey.
- Provided objects counts by utilizing the Project Tracking system in aiding the RFI process
- Developed Application Engine UC_PRCSRQST process to clear Process Scheduler queue while applying SA bundle and system upgrades
- Reengineering of Customization Projects report for use with database refreshes.

Student Administration System End User Training

- Conducted 35 hands-on and overview training sessions (18 Introduction to the SA System, 3 Admissions, 6 Financial Aid, and 8 Student Financials) with 233 participants. Also provided specialized training by request for Department of Residential Life, UConn Police Department, Orientation staff, and Financial Aid and Regional Campus Bursar and Registrar staff.
- Managed and communicated with 900+ SA administrative end users via listserv, providing system updates, training opportunities and time-sensitive system information.
- Collaborated with the Learning Resource Center, Orientation Programs, First Year Programs, Vista Course Tools, NetID, HuskyMail and UITS web services staff to update the New Student Technology Tutorial. The tutorial is used by all newly entering students to introduce them to technology-related tools and resources.

Financial Accounting Systems

FRS Support provided continued support to the University's accounting book of record, FRS. Several processing improvements were completed to make this mission-critical application more useful to the university community and the application did not experience any unplanned downtime during this period. Fiscal Year 08 was opened in June. FRS Support staff and Accounting Systems staff collaborated to plan, communicate, document, and execute this complicated annual process.

The following list comprises some of the projects, improvements and activities for this year:

- Participated in the project to successfully upgrade all DB2 systems from DB2 version 5 to version 7.
- Thirty-seven (37) vendor upgrades were planned, tested, and successfully implemented.
- Developed six (6) FAMIS application interfaces which were automated during this period, two interfaces come from FAMIS and four interfaces are fed to FAMIS.
- Processing changes were made to allow the purchase requisition interface to be fed into FRS during the day and for the requisitions to print automatically within the Purchasing Department. Email notifications are sent automatically to staff.
- Worked with the Bursar's Office to automate Transfer Voucher interfaces from their Lotus Workflow application to FRS. This process sends email notification after the successful completion of this daily process.
- Made the required application changes to accept a monthly Student Collections interface from the Student Administration application.
- Collaborated with Accounts Payable to create and document a process for them to copy the annual 1099 tax reports to CD for archival purposes. Email was added to the process to notify them when the reports are ready to be archived.

- A nightly email notification was created to notify Accounting staff when invalid accounts are added to the application. This will facilitate a more timely correction for Data Warehouse purposes.
- Provided support to research more than 200 Purchase Orders to assist the UConn 2000 audit that required retrieval of archival reports from 1998 through 2006.
- Provided auditors with documentation that explained FRS backup and archive procedures, as well as retention periods for various data.
- Began an examination of the functionality of SCT's Banner system and the open source Quali Financial System.
- Participated in an RFI process for Purchasing to research the feasibility of purchasing an E-Procurement system.

WebCT

WebCT Vista has been in full production and the migration from Campus Edition completed, since August '06 - on time and as planned 4 years ago (to date, no other institution in the CT Consortium, has been able to achieve that goal). Overall a very successful implementation that resulted in a customized, integrated and stable enterprise system

The system is now fully customized to the University of Connecticut needs and processes are automated and scheduled to run without the staff intervention as much as possible. Workflow applications have also been setup to streamline the interactions between the functional team and the technical Team. The USD ticketing system was also setup to include the functional type to better support our customers. Several scripts run daily to monitor our processes and report errors, which helps our staff to be proactive in fixing problems instead of reactive to customer's complaints. All Vista processes are now documented and in the process of getting published as SOPs.

Several related initiatives to enhance the continuing support and development of this application include the following projects:

Retirement of WebCT Campus Edition (previous version)

- Public access to WebCT Campus Edition was removed at the end of Summer '06 on time and as planned.
- The Application is internally accessible for late-adopter faculty. All requests are submitted through IRC.
- Both CE Servers will be retired in June '07 and an archive of all courses will be kept for 2 more years.

Investigation of Vista Upgrade Feasibility

- UConn has participated in Beta testing the Vista upgrade Utility. So far staff have applied 4 different versions of the tool, tested and reported back to Blackboard. Application of the 5th and final version is planned for July 07 and at that point staff will be in a good position to make a decision on the time frame for upgrading the Vista product.

Online Faculty Evaluation

- A Java application with Single Sign On for the Office of Institutional Research was completed to provide the same functionality as the bubble sheet but online. The application was rolled out on time and utilized successfully for two (2) semesters. It replaces the use of WebCT CE and the manual intervention of OIR in sending the survey results to Scheduling. OIR has access to the application to run reports, or send emails to students.
- Several Enhancements to the faculty evaluation application for on-line use were developed this past spring.

NEW ENTERPRISE APPLICATIONS INITIATIVES

University-wide Web Management

UITS/CBA staff has worked with University Communications to improve the UConn Web Template and develop the UConn Web Standards. Improved the template code and re-developed the template download website. Provided technical support to the UConn community regarding the web template/standards, and collaborated with University Communications to provide training sessions.

Workflow Solutions Initiative

UITS initiated a program to experiment and develop individual solutions for expected future needs for cross-departmental business process improvement. These applications and solutions are designed to target high-impact processes where they can be developed quickly using a common set of tools and techniques. Although this initiative has not been specifically funded UITS is proceeding on an as-resources-are-available basis and making best efforts in anticipation of this future need. The activities in this area include:

- Assembled a workflow team within the CBA group to assess University workflow needs and to construct an infrastructure in regards to hardware, application platform and software development toolsets.
- In conjunction with Server Support implemented a ColdFusion application server into the University preferred infrastructure (Linux, Tomcat java server, CAS single sign on) for the University Assessment software system.
- Implemented a solution to provide a java application server (Glassfish- no license fees) which can provide SOA/web services for the UConn COOP bookstore application, as well as java web applications and PHP applications.
- Installed a prototype central workflow engine (Kuali) with no additional license fees or maintenance costs. This will provide the ability for workflow developers to not have to a build workflow system into each application, and provide a consistent (“one stop shopping”) interface for customers to access their workflow tasks for all web applications.
- Installed a prototype centralized privilege management system (Signet) with no additional license fees or maintenance costs. This will provide real time privilege changes to web applications, along with consistent authorization processes, and could provide a possible solution for automating the signature authority process.
- Conducted staff training on Business Analysis skills augmentation.

FAMIS

UITs has begun the planning for a new support model for the FAMIS system. The expected goal for this effort is to transition FAMIS from an outsourced application and bring the infrastructure and applications support functions to UITs. This assessment task has begun and work is now beginning with the FAMIS project team to assess the requirements and costs for accomplishing this.

DEPARTMENTAL APPLICATIONS SUPPORT

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:

- **Human Resources: Phonebook Departmental Directory Online Management System** - Human Resources can now review, edit, approve the changes to the departmental directory information submitted by each departmental liaison. After approval the changes will be displayed in the Online Phonebook Department Directories instantly. And Human Resources can export the data into an Excel spreadsheet and send it to the publisher for the print directories.
- **CLAS Annual Metrics Report System** - CLAS (College of Liberal Arts and Sciences) Dean's Office now can review the annual Highlights and Metrics reports submitted by its departments online. Each department has read-only access to their sister departments' reports in the system, but can update only their own reports.
- **Biotech Center/DNA facility Online Store Application** - Bio Center now can update their online product catalogs, combine daily order requests and send them to their vendors.
- **CAP Midterm Evaluation System** - Before each mid term, Faculty and Teaching Assistants can go into this system to evaluate CAP (Center for Academic Programs) students' performance so far in their classes. Based on the mid term evaluations, the CAP counselors meet with their students to advise what to do (drop the class, get help from somewhere, etc.).
- **CSRA Washington WIA Survey Management System** - Center for Survey, Research and Analysis (CSRA) can now manage the Washington WIA survey reports in the system while their clients can view the reports at real time.
- **Tricampus Summer Advising Online Registration System** - Hartford, Waterbury and Torrington NewHusky program staff can now manage the summer advising/orientation sessions in the online system while their incoming freshmen can sign up for one of the sessions.
- **CAP Math Survey Online Registration System** - CAP (Center for Academic Programs) staff can now manage the math survey sessions in the online system while their students can sign up for one of the sessions.
- **FYP Learning Community Online Application** - FYP (First Year Programs) staff can now review the learning community applications submitted online by the

incoming freshmen who have paid the university deposit and applied for on-campus housing.

- Help Centers United Website Management System - Each help center can log in to update their center information, upload their public and private service catalogs, and read other centers' private service catalogs. Center information and the public service catalogs are stored in the database and displayed on the Help Centers United website dynamically based on the services each help center provides and the audience it's supporting.
- Teaching, Learning, and Assessment Task Force Comments Collection System - The committee can review comments submitted online by the website visitors.
- Ethics Training Web Application - UConn employees can watch the ethics training online and take the quiz after authenticating themselves with NetID.
- Purchasing: Online P.O. - Updated the Online P.O. application so that Purchasing can 1) modify the terms and conditions appended to each electronic P.O. sent to the vendors, 2) get a report on the number of P.O.s sent to the vendors through the system each month, 3) have a new role in the system who can do everything the admin can do but manage the users.
- Online Calendar System - This system is developed in house to provide our clients a better solution than the University Events Calendar system. Currently School of Social Work and Urban Community Studies Tricampus are using this calendar system on their websites.
- Online Survey System - This is an open source application installed on the Central web server to develop complicated surveys for our clients. So far we've used the system to build four professional surveys for CSRA (Center for Survey Research and Analysis).
- Dynamic Web Page Management Systems - Converted several static html web pages to dynamic php pages so that staff maintains the information on those pages through a backend secured admin interface while the information is stored in a MySQL database. Areas served include:
 - CHIP (The Center for Health, Intervention, and Prevention) Website
 - Writing Center Tutor Profiles
 - CLAS (College of Liberal Arts and Sciences) Website
 - Jorgensen Website
 - Software Licensing Group Website
 - UITS Main Site News & Alerts
 - ITSNews Website
 - ITSTATUS Website
 - UITSJobs Website
 - ECP Project Status Page

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 use 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:

- A new website for *School of Social Work* and its sub sites (SSW Students, SSW Faculty, IVPR, CISWS).
- A new website for the *UConn Kayaking Club*.
- A new website for the *UConn Ski Team*.
- A new website for the *Student Technology Tutorial*.
- A new website for the *CT Safe Routes to School*.
- A new website for the *Urban Community Studies Tricampus*.
- A new website for the *Facilities Operations*.
- A new website for the *Waterbury Campus*.
- A new website for the *Office of Audit, Compliance & Ethics*.
- A new website for the *Transfer Admissions*.
- A new website for the *Center for Academic Programs*.
- A new website for the *Emergency Communication Project*.
- Improvements to several websites were accomplished including *Department of Public Policy, Transfer Admissions, Software Licensing Group, Writing Center, New England Association of Schools and Colleges (NEASC)* and others.
- A comprehensive website redesign project for UITs, which includes UITs main site, ITSNews, ITSTATUS, UITs Accounts, Help Center, Telecommunications, HuskyVision, Network Engineering, Telephone, Wireless, Telephone Operators, TSS, HuskyPC, Office Update, Antivirus, Security, NetReg, P2P, Exchange, Blackberry, Central Web Server (web.uconn.edu), Homepages Web Server (homepages.uconn.edu), NetID Single Sign-On (CAS), NetID (netid.uconn.edu), NetID Support (netidsupport.uconn.edu), HuskyMail, HuskyMail Support (huskymailsupport.uconn.edu),

Pinnacle

- Completed domestic call record processing cut-over of UCONN branches from MCI to Paetec. Rating setups and configurations were done in Pinnacle.
- The International Billing for UCONN Branches was cut over from MCI to AT&T Billing Plus. Pinnacle rating setups and configurations were changed to comply with this cut-over. Procedures were set up to load into the system and run 6 months worth of call records within the rating and billing system.

- Nextel was picked as a first step in incorporating the wireless data and billing into Pinnacle. Nextel wireless process was set up, tested and cut over to production. The process was being handled manually before.
- Completed project to automate the call record file transfer from Paetec to UCONN.

ID System

During the year, UITS continued to support and enhance the capabilities of the legacy Identity Management System. Some of these enhancements were:

- Allow input of High School ECE instructors from the Student Administration System to create NETIDs.
- Add an alternate feed for Dining Services Affiliate employees directly from SAIT, eliminating the need for HR to put these people in GENESYS.
- Generate a Personal ID (PID) number for all people entering into the Identity Management System to be used in place of SSN.
- Generate a Registration Code to be used as initial NETID password that gets mailed out to staff and students.
- Replaced SSN with PID in the University One Card and Library Patron System (Voyager) updates.

USD - Unicenter Service Desk

During the year, UITS continued to support and enhance the capabilities of the USD trouble ticket system. Some of the modifications were:

- Increased the DESCRIPTION field size to 5000 for Problem Request and Change Orders.
- Created and modified a Problem Request form for HuskyPC group.
- Tested and applied patches to implement the new daylight savings time changes.
- Created and modified a Problem Request form for Fine Arts department.
- Created and modified a Problem Request form for the West Hartford campus.
- Created and modified a Problem Request form for LRC.
- Archived Problem Request and Change Order data for ResNet department.
- Researched some changes that were requested for the survey portion of the USD application. Changes like, in the survey heading replace: (1) "Unicenter ServicePlus Service desk" with some UITS background and "UITS TSS Team" as the heading. (2) Turn the "highlighted" line below the survey heading to plain. (3) See if we can include the problem number in the survey being sent to the customer. The current release is not customizable as Release 11 (R11) is. Changes are on hold until R11 is in place.
- Added "Recommended Settings" and the UConn logo to the login screen.

ADASTRA:

- Implemented a reporting tool for AdAstra room and exam scheduling. This web-based report generator went to production beginning of school year. Registrar's office is very happy with this user friendly application.
- Migrated the AdAstra database to the Central Oracle Database Server and led the subsequent testing by the end-users.

Network Engineering:

- Implemented Phase I of Network Engineering application. This application went to production in August 2006. The new application is web-based with Netid authentication.

Continuing departmental applications production support:

Departmental support of a continuing nature is provided for several in-place applications including: e-Policy, Assessment, ADVAP, Faculty Evaluations, e-Purchasing, ImageNow and e-Phonebook

NEW DEPARTMENTAL APPLICATIONS INITIATIVES

Public Safety – Comprehensive Departmental Applications Support

- Negotiated with Public Safety for financial support for one (1) FTE for UITS to supports their IT application support and development needs.
- Provided business analysis support for to aid in developing an inventory for existing software applications among their six sub-departments and determining future application needs.
- Met with sub-departments to gather information and analyze business processes and procedures (currently on-going)
- Implemented Payroll/Scheduling application.
- Implemented Background Check application.

Center for Undergraduate Education Department – Accreditation Assessment

- Implemented Assessment software package (OATS) for the University.
- Provided application analysis to determine best application between multiple assessment software packages.

II. Customer Support & Relations

Service Elimination

- **PPP:** Notified and deleted 47 PPP accounts, moving them to VPN services. PPP remains in place only as a backdoor and troubleshooting tool to UITS.

New Services

- **Macintosh (Project PM281):** Made significant progress in defining and implementing support for Macintosh computers. The goal is to get as close as possible to the support provided for Intel Windows-based computers. Objectives met to-date include:
 - Defined various levels of tier support

- Created a Macintosh software image that can be installed on computers at the vendor site (UConn Co-op) prior to delivery.
- Provided UITS education to improve both Level 1 (Help Center) and Level 2 (TSS) support.
- Developing a clear understanding of support roles between UITS, UConn Co-op, Apple and distributed UConn IT centers through a service level agreement (SLA).
- Integrated the HuskyPC web site, <http://huskypc.uconn.edu>, to include (in addition to the Intel Windows information) the Macintosh offerings through the *Apple Store*.
- Updated the Microsoft Office Update web site to include downloads for Macintosh users.
- Developed the HuskyPC Macintosh software set for the new Intel-based Macintosh computers to ensure parallel development and updating with Intel-based Macintosh image.
- Added iLife media software to the site license offerings.
- **Touch Tone (TTY) Installation:** Installed and implemented touch tone telephone service for UConn telephone operators to better support the hearing challenged end user.

Service Enhancements

- **Burton Family Football Complex:** Worked with Athletics to plan and coordinate their move from Gampel to their new facility. Work consisted of: installation of computers into the lab; reconfiguring personal computers for the coaching, video, equipment, medical / training, and support staff; configuring laptops and desktop computers for the video group, DVSPORT section; setting up and configured Savin multifunction printers (new technology) for the staff; upgraded their software; and ensured the proper server and network connectivity.
- **Public Safety:** TSS migrated over 100 personal computers into the central Active Directory (AD) domain, traveling to the multiple locations (Storrs, Stamford, Avery Point, Depot, Hartford, and satellite offices) and updating software (LEAH, Firehouse) to accommodate the new services and partnership. A service level agreement was created and put in place for continuous support of this environment.
- **Planned for Microsoft Vista and Office 2007:** Working through the SLG and with others planned the timing of the product rollout, imaging processes, software download, training (collaboration with HR), etc. and presented to the IT governance groups and campus community.
- **FTP Services:** This service had not been maintained and/or updated in several years. Planned and executed the removal of old software; updated software to the latest versions; and added new offerings for Macintosh and Windows-based platforms.
- **Symantec AntiVirus Upgrade:** Researched, tested, provided information via web pages and email notification, and implemented the processes to get UConn ready for the virus protection upgrade.
- **UITS Web Page (Project PM283):** Reviewed all web pages associated with <http://uits.uconn.edu> and ensured that the content was updated. All the web pages were migrated to a standard UITS template. The project will be completed in time for the fall semester.

- **Production Environment Operational Group (PEOG):** Revisited and revised the procedures and processes to improve upon the management and active participation of the production turnover activity. Processes were streamlined, a scribe was assigned to take and post minutes, added the Help Center for customer feedback, documentation was updated, and an orientation session was instituted for any new members to ensure they understood the role and responsibility.
- **IT-Status web page:** Significantly enhanced this information board to provide additional information to the UConn technology using community to include integrating the ‘matrix of services’ to feed impact statements when systems are down. <http://itstatus.uconn.edu>
- **E-Learning:** Implemented Microsoft’s on-line training opportunities (http://software.uconn.edu/software/software_detail.php?softid=melearning).

Collaborative Service and Support Efforts

- **Communication:** Kept our user community aware of changes taking place within UITS in regard to new and changing services through email as well as planned and emergency outages, via ITSTATUS.
- **Daylight Saving Time (DST):**
 - Researched, tested, informed via web pages and email, and implemented the processes to prepare UConn for the DST change.
 - Exchange 2003 became a priority and TSS performed and documented the outcome of extensive testing, located patches, and prepared on-line end user information and instructions.
- Worked with several departments to contract various levels of services from UITS through service level agreements (housing, OS/hardware, applications/database).
- **Help Centers United:** Continued work with department/school help facilities to create a unified virtual help resource <http://help.uconn.edu> that the UConn community can use to receive help on their technology and/or administrative needs. Moving closer to a matrixed help support organization that will increase operational efficiencies of the respective help centers to its customers.
- Added the following departments/schools to the centrally managed Problem Management (USD) System: School of Fine Arts; Institute for Teaching and Learning LRC, IRC and Audio Visual Technology; and West Hartford.
- **Software License Group (SLG):** Continued to chair this group. Through the group investigated and moved to implement the following:
 - **New HuskyPC contract;** Intel-based standard computer. Involved in the RFP was UITS, School of Business, School of Engineering, School of Education, Student Affairs IT, College of Liberal Arts and Sciences, and Purchasing. Lenovo selected. More information at <http://huskypc.uconn.edu>. After presenting to the ITSC, the recommendation to move forward with the standard is as a recommendation to purchase, not mandatory.
 - **New Microsoft contract;** Included both the Select and Campus agreements. Involved in the RFP was UITS, School of Education, Student Affairs IT, School of Business, and Purchasing. SHI was selected.
 - **SPSS:** Secured a campus-wide site license available for distribution to faculty and staff (not students) at all UConn campuses.

- Other Software contract renewals included: Adobe, Mathematica, MatLab, SAS, MiniTab, Symantec, etc. Listing of full software availability and eligibility: <http://software.uconn.edu/>
- **Macintosh Support Group:** Doubled group membership by establishing fixed monthly meetings, rotating meeting location, and spearheaded various group initiatives to enhance support services for UConn's faculty and staff.
- **Symantec AntiVirus:** Worked with various support groups to coordinate the upgrade efforts to both the Windows and Macintosh platforms (desktop/servers). Prepared and posted for download self-extractor files for all versions of the software (Vista, WinXP, Vista 64 bit, and XP 64 bit). Updated all documentation and posted to the web.
- **Torrington Computer Technical Support Technician:** Worked with Torrington administration to hire a full-time technician. This is a partnership whereas s/he is working closely with ITL and UITS to learn best standard operating procedures and adapt like-services for Torrington. The individual will visit the Storrs campus to attend staff meetings, training, etc., sharing his time between ITL (video services, classroom support) and UITS (computing).
- Worked with various functional support departments to test, identify and post best options for web browsers to use with UConn supported applications. Each application web interface has an icon/link to more information. Extensive research and shared information for Internet Explorer version 7.
- Coordinated and/or Presented at the UConn Co-op Technology Talk Series; Apple Storage Solutions Seminar; UConn Open House; and the UConn Co-op Technology Fair.
- Several staff participated in Midnight Breakfast in support of UConn students.
- Extended Help Center hours into the evening to cover for UConn Student Orientation (comp-time). This ran from the end of May through the beginning of July. Staff were available to assist with password changes for NetID and PeopleSoft to allow access to technology resources.

Administrative Process Improvements

- **VM account initiative:** To identify, contact, and then eliminate unused VM accounts. Have contacted approximately 400 of the 1100 account holders and have deleted approximately 100 accounts from the system.
- **Elimination of Shared VM Accounts project:** Sent 173 letters to the departments requesting verification of UITS last assigned user. Sent second letter to 94 departments who did not respond. Telephoned approximately 70 departments to clarify information. Outcome: UITS identified 142 accounts that were being shared of which 110 accounts truly being shared. With that information we worked with the departments to implement either group logons or new accounts. We reduced the number of shared accounts to 32. Work continues.
- Identified VM accounts being shared by students; Reviewed access procedures with departments to ensure tracking ability. A total of 94 accounts were suspended and a total of 647 accounts were canceled.
- Worked with the School of Engineering and Library to make sure new employees have accurate email addresses in the personal name system. Engineering, Business, and Law do not receive email accounts on UITS Exchange server (Library does, but routes it to their server); therefore their email addresses must be

manually entered into the personal name system to route their email properly (not bounce it).

- Worked with Registrar's Office to make sure that any official name changes made by students to their official records are reflected in their email address.
- Worked with the Registrar's Office and others to identify and eliminate where applicable the large list of faculty "Users without a Department" from the Exchange system.
- **SOP:** Documented the procedures UITS follows should a department want a copy of someone's email account or the individual wants a copy of their email.
- To add resources, without any new resources, to the Help Center for the start of the fall semester activity and the increased calls due to NetReg, PeopleSoft and NetID/AD password synchronization queries CS&R had to adjust all staff for more than two weeks. The Help Center was backlogged at times up to 3 days with voice and email messages. We are gearing up for this fall semester; extending hours, using existing staffing resources.
- **Account Renewals:** Processed over 60,000 accounts on the mainframe and approximately 59,000 accounts for focus database.

Professional Development

- **Macintosh:** Third Level Support technician completed training in *Macintosh OS X Support Essentials*; *Macintosh OS X Server Essentials*; and completed *Help Desk Specialist (ACHDS)* and *Apple Certified Technical Coordinator (ACTC)* certifications. Applied to the *Apple Certified Training* program (ACT-certified) to establish UConn as an official Apple Training Center, which offers UConn the potential for significant cost savings and greatly enhances opportunities for the University.
- Three out of four Technology Support Services technicians are certified as *Microsoft Certified Desktop Support Technician (MCDST)* and *Microsoft Certified Professional (MCP)*. Note: The fourth technician is preparing for certification.
- The 5 full-time staff in the Help Center received their Help Center Analyst certifications.
- Director is certified in Information Technology Infrastructure Library (ITIL), which is a framework of [best practice](#) approaches intended to facilitate the delivery of high quality [information technology](#) (IT) services. ITIL outlines an extensive set of management [procedures](#) that are intended to support businesses in achieving both high financial quality and value in IT operations. These procedures are supplier-independent and have been developed to provide guidance across the breadth of IT infrastructure, development, and operations.
- **Macintosh Technical:** Attended Macintosh OS X. Scheduled both Level 1 (Help Center) and Level 2 (TSS) Apple Macintosh training for June 2007; both areas will work toward their certifications.
- **Windows Technical:** Attended Outlook 2003 Level 1 and 2; Vista; and A+. Staff will become A+ certified and upgrade their current certifications to Vista.
- **Stephen Covey's, Seven Habits of Highly Effective People:** The managerial staff attended the 3-day *Signature Series* and the technicians and analysts attended a 1-day *Workshop for Associates*. This program will continue into fiscal year 2008, with all full-time staff attending the 3-day Signature Series.

- **Computer Associates (CA) Northeast Service Desk Plus User Group:** Served as president of the user group, whose goal it is to work with CA and vendors to bring in presentations of interest to those using the problem management system (USD) and discuss problems, enhancements, and futures of the product.
- **Service Desk Plus Product Line Community:** Served as Vice President of this global CA customer community focused on using the USD product. This group has voice in helping prioritize by vote enhancements, service and support.
- **Help Desk Institute – Higher Education Forum (HDI-HEF):** Served as a member representing the University of Connecticut. The group develops best practices, processes, procedures, standards, instituting HDI certification for all Help Desks and Technology Support departments within a university/college environment with affiliation with HDI.

III. Information Technology Security & Policy

Policy and Procedures Development – Over the past year, the unit has developed or updated several policies and other documents:

- Individual Responsibilities with Respect to Appropriate Use of IT Resources policy was updated to clarify the University’s position with respect to the appropriate use of the University’s computer and network resources.
- Electronic Privacy and Disclaimer Notice policy and the University’s Electronic Privacy and Disclaimer Notice statement were rewritten.
- Electronic Communications policy was updated to include two new sections concerning the Retention of Email and Central Email SPAM Filtering.
- Developed and documented procedures for Handling Requests from Law Enforcement. (Internal UITS document)
- Developed and documented process for handling stolen laptop investigations. (Internal Security group document)

IT Security Support– The following initiatives were undertaken to support and/or improve IT security for the University.

- Developed UITS Security Incident Response Procedures, Standards and Guidelines document to assist the Security office in electronic incident identification, handling, response and notification.
- Working with Labor Relations and Student Affairs, revised and documented UITS procedures for responding to DMCA complaints. The new procedures for handling first and second complaints can be found at <http://itpolicy.uconn.edu/policydocs/dmca.html>.
- Responded to various IT audits (Wireless, Firewall, Software, PCI) conducted by the Office of Audit, Compliance and Ethics.
- Hosted for the University “Cyber Crime Zero Day Vulnerability Protection” presentation as part of Security Awareness week.
- Provided Security Awareness training to both FAIT participants and Parking Services staff.

- The Security Office initiated a University-wide awareness effort concerning the new e-Discovery rules and worked with the Attorney General's office and e-Discovery task team to develop processes which include the involvement of the Security office, to deal with these new rules.
- The Information Services Standards Committee (ISSC) was reformed to report to the Director of IT Security, Policy and Quality Assurance. This past year charters for the development of several standards were approved and projects to develop standards that address the following are underway: Guidelines for Developing Web Applications for Secure Deployment; Creation of Templates to Document Applications, Systems and Databases; Development of IT Standards for the Copying of University Data.
- The Network Security area has begun to block, by default, p2p applications for all users of the network and developed a web application that allows authenticated users the ability to request unrestricted p2p services for legal use.
- The Security group conducted quarterly vulnerability scans in support of Payment Card Industry (PCI) security compliance and issued a report of findings to the affected departments, Cash Operations and Internal Audit for their review and follow-up activities.
- The Security group initiated and completed a project to determine a technical solution recommendation for limiting public access to the University's network.
- The Security group initiated, and is in the process of implementing, a guest authentication solution to be utilized with wireless and wired access to the University's network.
- The Security group configured and provided support to Public Safety's Fortinet firewalls.
- The Security group upgraded the VPN to provide a richer client experience for off campus VPN users.
- The Security group migrated applications scattered across various Network Engineering servers to a central platform on UITS' Mainframe allowing for the consolidation of application management and enhanced security for those applications.
- The Security group oversaw the redeployment of the Netreg system across the University.
- The Security group, working with Student Health Services and Speech and Hearing, developed a remediation plan that addressed the findings of the HIPAA Risk Analysis which was completed the prior year by DOIT.
- Developed /assisted in the development of third party confidentiality and business associates agreements to accompany University IT-related contracts.
- We continued to oversee activities of the Social Security Number task force. Over the past year the following activities were initiated and/or completed:
 - Elimination of shared VM accounts
 - Oversight for the SSN website

- Development of language to be used on forms that collect social security numbers
- Working with the named data custodians we have accomplished the following:
 - Update and expansion of the Responsibilities for University Data matrix to include backup and storage information;
 - Development of draft guidelines concerning how to respond to requests for information.

Project Management – In addition to refining and reinforcing UITS’ methodology, maintaining project management web documents, providing monthly project status reports, and providing quarterly effort status reports, we successfully completed the following initiatives:

- Created the format and content for two project management related web pages on the UITS web site. These pages provide information to the university community on current projects, as well as past achievements that benefit our users/customers.
- Developed and piloted Basic and Proficient level project management training modules for UITS project managers.
- Provided Basic level project management training to all UITS project managers as well as UITS managers and directors. This training helped to bring awareness about project management to appropriate UITS staff as well as clarify expectations and define common terms and processes.

Other Initiatives -

Participated in Educause 2006 Conference –

- Presented a collaborative session to 200 attendees at Educause. The session was a panel discussion on Developing Project Managers. Jane Bachand presented material on this subject along with colleagues from two other educational institutions. Pam Heath-Johnston facilitated the session.
- Member of the Current Issues Committee (CIC) – responsible for identifying information technology and resources management issues in higher education to be addressed through the association's various programs and activities.

IT Governance

- Chaired the Technology Planning Committee
- Developed and documented IT Project Budget Request process

Support of University Initiatives: The area supported several University-wide initiatives as follows:

- Served on Standard 7 (Library and Information Resources) and Standard 8 (Physical and Technological Resources) committees for the NEASC Reaccreditation process and provided portions of the final report.

- Coordinated the gathering of information technology data in support of multiple inappropriate investigations, FOI requests and litigation hold requests.

State DOIT Interaction:

- Assisted in the development of the Memorandum of Understanding (MOU) between UCONN and DOIT, and coordinated ensuing discussions, to enable DOIT to use UITS Operations area as an alternate Core-CT Disaster Recovery site. This MOU also permits UConn (UITS and SAIT) to use DOIT’s Operations area for limited disaster recovery.
- Participated in DOIT Security Roundtable discussions. Participants are the security officers from various State agencies.

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 2007. The efforts listed below are above and beyond the large effort these groups contribute in the area of production support.

Back-Up Power for the Data Center: After many, many years of dealing with power outages, the UITS Data Center is now supplied with generated power when street power is interrupted.

Server Consolidation: Efforts have continued to address server consolidation. This fiscal year CTIS designed and installed a redundant VMware infrastructure to support the consolidation of relatively lightweight Intel Windows services. The process of deploying the PeopleSoft Windows Process Schedulers to this environment is currently underway and several other services will be ported to this platform during the next six months. This environment provides efficiencies in the areas of purchasing, system administration, hardware cost and hardware maintenance costs.

Consolidated Oracle Database Server: Oracle databases are continuing to be deployed to the Consolidated Oracle Database Server (CODS). This technology has proven to be very cost-effective. CODS was upgraded to Oracle 10g, the most current software release available.

Data Warehouse Server: Requirements for an enterprise data warehouse server were identifies and written into an RFP specification for the acquisition of a server to house the Human Resources EPM, the Student Administration EPM, the Budget and the Financial Data Marts.

Mail Services:

- **Exchange System:** The upgrade of the Exchange system to Exchange 2003 was completed. The deployment of additional hardware for handling the larger number of accounts than was anticipated is nearing completion.

- **HuskyMail:** During the Fall 2006 Semester, UITS recognized that it was necessary to replace the iPlanet-based student email system. To that end, new hardware and software were acquired and configured for this service. The storage for the new HuskyMail system is on the enterprise storage system.
- **LISTSERV Improvements:** The Listserv mail distribution processes have been significantly redesigned, reducing delivery times from many hours to minutes for large lists.
- **SPAM:** Three Barracuda SPAM Appliances were placed into production to better control SPAM. They have been configured to provide for the tagging of suspected SPAM. These devices also drop high certainty SPAM from known SPAM sites.

Mainframe Services:

- **Product Elimination:** Through careful analysis staff were able to eliminate the SAS CMS, ESSL, GDDM, GDQF, OSL, Rexx compiler, SQL-DS data restore and VMbatch software from the VM system.
- **z/VM Upgrade:** Staff upgraded the production IFL system on the zSeries 890 to z/VM 5.2 to provide the latest features of this operating system to support critical Linux applications hosted on this system.

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

- **SAN Directors:** Server Support purchased four additional blades (servers) for the SAN Directors (storage pathways) to provide an expanded capacity to connect 64 devices. The ports provided by the new blades operate at twice the bandwidth as the original 64 ports. This will increase performance significantly on those devices that can take advantage of the speed.
- **Enterprise Storage System (ESS) Replacement:** A new IBM DS-8100 infrastructure with 25 TB of storage was acquired to replace the enterprise storage system. Also acquired was a pair of virtualization engines. The new state-of-the-art storage systems provide three tiers of storage, all of which can be virtualized. Virtualization allows for movement of storage between tiers and to flashcopy from tier 1 (expensive) to tier 3 storage (significantly lower cost). This significantly reduces the cost of exploiting the flashcopy facility. The project is about 90% completed.
- **Automated Tape Library (ATL) Expansion:** An expansion cabinet was added to the Automated Tape Library to accommodate additional slots for tape media storage and tape drives to accommodate the increasing demand for tape backups. The new tape drives record at a higher density allowing for the storage of more data on each tape. These drives also provide hardware data encryption.

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.

- **UCHC HR Project:** Provided support for the HR Project until it was terminated.
- **EPM HR:** Installed and configured EPM for the HR Project. This involve setting up another PeopleSoft instance.
- **Oracle Upgrade:** Upgraded to Oracle 10g to support the Student Administration System.

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

- **Public Safety:** UITS assumed responsibility for the Public Safety Server environment. The servers physically reside at Public Safety, but are managed by the Windows Server Support Team. The Team revamped the entire server environment and migrated to Public Safety's new servers this spring.
- **Image Now:** The ImageNow servers were upgraded to a new version of ImageNow to prepare for their migration from a Ctree database to an Oracle backend database.
- **Novell Services:** Human Resources was migrated to UITS' Central Novell server.
- **Active Directory:** New servers were acquired in support of the Active Directory infrastructure. The project to upgrade to the Active Directory 2003 version is currently in progress. This will improve the performance of the Exchange system.
- **Jorgensen Server:** In response to a call for help from the Jorgensen Center for the Arts, Windows Server Support provided assistance that eventually resulted in a completely new installation of their server and the creation of a failover system for their ticket service.

WebCT Vista: With careful monitoring, UITS was able to identify that there was a performance problem in the WebCT Application Server environment. A new server was added to allow for the creation of two additional application server nodes. This proactive approach allowed for the problem to be addressed before it became an issue with our customers.

OATS Service: To support the upcoming accreditation process, a server was setup to run Cold Fusion. Staff assisted in getting the application installed and functional.

iWay Adaptor: A proof of concept project with the iWay adaptor was completed. This will allow for putting the software into production during the coming fiscal year to reduce software costs.

V. Networking & Telecommunications

Organizational Changes

This year saw the retirement of Associate Vice President Charles Fink in May, 2007 from a dual role leading Networking at Storrs and the regional campuses along with telecommunications at the Storrs, regional campuses and Health Center locations.

During this year, Rob Vietzke, who has served as Program Director and Network Architect for the State's Connecticut Education Network served as overall project

Director for the nationwide upgrade of the US Internet2 research and education backbone. Under an agreement between the University and Internet2, the University was reimbursed for 80% of Rob's time while he led this nationwide advanced networking project that included 13,500 miles of 100 gigabit network activation, 25 small data center build-outs across the united states and coordination with dozens of regional optical networks and hundreds of University's across the country.

Upon Mr. Fink's retirement and substantial completion of the Internet2 project, Mr. Vietzke assumed the role of Director of Networking and Telecommunications for Storrs, the Regional Campuses and the Law School. Technical and Administrative oversight of the Connecticut Education Network Staff is now part of the department's responsibilities. Telecommunications for the Health Center has been retasked under the Health Center's IT leadership.

Networking Engineering & Design Accomplishments **(Storrs, Regional Campuses and Law School)**

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

- Merged the operational function of the Security Group back into the Network Engineering Group. The Security staff now report directly to Network Engineering.
- Baseball - upgraded the network, (voice & data) to this location within the Athletic Complex.
- Lakeside Apartments – Upgrade both the outside and inside plant in order to allow the Publications department to move from Route 195 to this new location. Established Gig connections to most desktops in order to support large data transfers.
- Math department - Installed new equipment and wiring to allow for network stability and increased performance in order to meet user's specifications. These enhancements to the equipment and the wiring have had a significant positive impact to the end user expectations.
- Old Central Warehouse – Upgraded the wiring and switches in order to establish swing space to accommodate departmental moves and construction.
- Horse Barn Hill Aerial Cable Cutover – redirected the service to areas of Horse Barn Hill in order to eliminate the telephone poll line.
- Spring Manor Farm – Completed technical improvements in order to keep the data monitoring equipment up and running should power failures occur.
- Museum of Natural History – Upgraded equipment and wiring in the new wing.

- Public Safety – Completed a major upgrade to the wiring and equipment over in the Public Safety building. This also consisted of building out a new closet, and moving existing equipment over to the new closet. After the physical moves were complete the security group worked with the Public Safety department to ensure that all critical devices were firewall protected to their satisfaction.

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 the Wireless core equipment in order to grow the wireless network at the Storrs and regional campuses.
- Completed wireless improvements at the Stamford, Waterbury, Avery Point and Torrington campuses. These campuses now have a wide wireless umbrella to support a significant number of users.
- 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.
- Installed Network Core Firewalls and began to move critical servers behind them.

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.

- South Campus
- Northwest Campus
- East Campus
- Hilltop(Hale & Ellsworth)
- McMahan
- Arjona Building
- Commissary Warehouse
- Gant/Physics
- Chemistry
- Environmental Health and Safety
- Women’s Center
- UConn Foundation
- UPS Lan Upgrades
- Stamford Lan

Remote Access Virtual Private Network (VPN) – Upgraded the devices in order to support more users.

Wireless – Installed additional wireless access throughout the Storrs and regional campuses for mobile computing. This has significantly expanded the number of access points thus allowing for more users of the network.

Telecommunications (Storrs, Regional Campuses and Law School)

- Removed 7 digital trunk groups with 23 voice trunks each or 161 voice ports to reduce costs with reduced voice calling trends
- Converted all off-site locations interstate from MCI to SBC/AT&T to provide better rates and eliminate multiple invoices.
- Coordinated additional ventilation and air-conditioning duct work in the campuses primary telephone and data/video rooms to improve air flow for better equipment reliability.
- Researched options with AT&T & UConn facilities to repair backup generator for the telephone system.
- Eliminated student service publications to reduce publications and mailing costs. Created an e-mail document set to provide students with pertinent information about their telephone services.
- Installed bi-directional cellular service antennas from Cingular and Nextel to provide enhanced signals for cellular service in Homer Babbidge Library, Rome Hall and Biopharmacy
- Installed a digital services ISDN trunk service (PRI) for the Torrington Campus to replace their existing trunks to enable caller id. Migrated the Litchfield Agriculture Center to the same PRI.
- Upgraded the Automatic Call Distribution System (ACD) to allow us to offer the service to more customers.
- Upgraded the Storrs campus' 5ESS telephone switch software.
- Set up remote diagnostic service to allow access to the Haddam & Torrington phone systems for programming changes and troubleshooting.

Networking and Telecommunications Fiscal Unit

- Found inappropriate circuit charges \$18,000/year + additional \$24,000 in back charges

- Developed an all staff training program through HR and the Office of Organizational and Skill Development on workplace teaming to facilitate growth and communications between Telecommunications and Networking units.
- Designed inventory tracking system to track ~ \$1M in inventory
- Procured new contract to streamline infrastructure, data and telecommunications materials purchases

Connecticut Education Network Advanced Services Unit

- Successfully applied for and received on behalf of the State over \$5 million in federal universal service fund credits towards library and K12 school services.
- Continued staffing and operational production support for network supporting 160 K12 school districts, 52 higher education campus sites and 171 public library sites
- Supported growth in Internet service provider program for Choate Rosemary Hall, Fairfield University, University of Bridgeport, St Josephs College, and several other colleges, bringing to 100% the number of public and private colleges in Connecticut leveraging UConn leadership and contracts
- Quadrupled the K12 filtering and firewall capacity and doubled utilization by K12 schools and libraries during the academic year.
- Integrated a new settlement free peering service available through Internet2 with CEN Internet services, reducing the state's overall Internet expenses by almost 30% and increasing utilization and cost efficiency of the University's regional connection to Boston through NEREN and Internet2.
- Relocated offices within the Department of Information Technology in East Hartford, CT.