Information Services
Annual Report 2004-2005
6-30-05

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:

- Initiated an IT Strategic Planning Initiative,
- Finalized the Executive Team and the Management Team within the IS Division,
- Led the development of the North East Research and Education Network deployment, including linking Connecticut to Rhode Island, Massachusetts and New York,
- Became one of the State's largest Internet Services group, providing Internet and Internet2 services at reduced costs to higher education and 80 K12 School Districts,
- Implemented Blackberry device (Cell Phone / wireless Email) infrastructure and support for accessing the central Exchange service,
- Created a data wipe program to erase data from desktop and laptop computers and servers prior to deployment (surplus or reassignment),
- Implemented structured process and procedures and improved the phone support infrastructure for the help center to reduce customer voice mail and improve department service and support,
- Completed the Peoplesoft Financial Aid, Student Financials and the SEVIS-PASS (foreign national tracking) modules implementations,
- Initiated a Peoplesoft HR planning project in conjunction with the UConn Health Center (UCHC),
- Initiated a project to evaluate potential Financial Systems for FRS replacement for Storrs and UCHC (RFP process to begin 1-1-06),
- Implemented an e-Policy system to manage UConn policies in an electronic repository,
- Installed and began a pilot project for an e-Portfolio system to provide students a co-curricular transcript of information,
- Created an area devoted to oversight of IT Security and Policy Development,
- Implemented wireless networking for the core campus.

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. 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 design 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

- 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 Marine Sciences expedition to the Eastern Sea Mountains and Dr. Bob Ballard's return trip to the *Titanic*.

- Provide Networking support to TOPOFF3 in New London, including support for the Connecticut State Police's participation in this critical federal disaster drill.

- Presented at three Regional Optical Network Seminars for "The Quilt," a consortium of regional advanced networking leaders from across the country

- 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.

II. Customer Support & Relations

The Customer Support & Relations unit spent a good deal of the year searching for and acquiring the appropriate staff to complete the unit goals. This included: a **full-time manger for the Help Center and Technical Support Services** area (TSS), **three full-**

time Help Center analysts to bring support levels to a reasonable state (total, five full-time analysts), a **temporary Help Center analyst** to fill the role of an analyst who was called to active military duty, **Increased Telephone Operations support** availability from one full-time and one part-time operator to two full-time operators and **two full-time Technical Support Consultants** to bring support levels in the TSS *(desktop)* area to a more reasonable state (total, 4 full-time technicians).

Staff Development - In the area of Physical and Professional Development the CS&R unit changed itself to: successfully merge the Help Center, Technical Support Services *(desktop)*, Problem Management, Accounts, Telephone Operations, and CS&R Leadership into one common area which has provided a significant positive improvement in moral, technical skills, customer support service and delivery, task/project completion; reset the bar, set clear expectations on deliverables and behaviors, working to the roles and responsibilities as established by job descriptions, goals, objectives and principles of the University, UITS and CS&R; Provided educational opportunities for the unit reflecting:

- "*Extreme Team Building*" to help initiate and build an effective team.
- *"The Seven Habits of Highly Effective People"* to help build an effective leadership team and to help empower the department and organization to increase individual and collective performance.
- *Technical workshops,* moving in the direction of certifications for Help Center, Microsoft, Apple, and Project Management, to establish a team of strong technicians and project managers;

Established a proactive education program in the Help Center – Any new or changed service (by UITS or other IT department) that requires UITS Help Center assistance at the front-end will provide the Help Center an overview or training as appropriate and give the analysts a question/answer opportunity as it concerns the initiative to be better prepared to help customers when they call.

Established Help Center liaisons – Liaisons were created for supported services (i.e., PeopleSoft, Wireless, WebCT/Vista, etc.) allowing the analysts to participate in the development from a customer, first level of support, perspective and to help the analysts be prepared to answer calls on any of these services.

Exchange Rollout – Continued the implementation of Exchange, providing one common Email and Calendaring service for the University. To-date UITS has moved most departments and schools to the central service, establishing:

- 4030 employee mailboxes (faculty, staff, emeritus and retiree)
- 287 student employee mailboxes
- 508 resource mailboxes

Left to do: Schools of Engineering, Business, Law; Libraries

Enhance Existing Problem Management (USD) System - Enhanced the existing problem management system to more effectively manage our Problem and Change Management requests. This will also assist in the managing and monitoring of Service Level Agreements (SLA) and Operational Level Agreements (OLA) as well as provide metrics on UITS performance and service delivery to our customers to identify areas of

improvement. USD is a key component that will be utilized in the realization of a true UConn "Matrixed" help function.

Microsoft Campus Agreement – Oversaw implementation of the Microsoft Campus agreement. This allows Windows and Macintosh customers the ability to upgrade to the latest version of Microsoft Windows and Office.

Macintosh Support – Re-established technical support for Macintosh computers within UITS. A Mac users group has been established to represent our Mac customers and CS&R is working with the Co-op to improve overall Mac technical service and customer support between UITS and the Co-op.

Added Support Roles – The Help Center took on first level support of PeopleSoft and WebCT activities, which were previously provided within the PeopleSoft and Web Development Lab support areas.

Standardized Operating procedures – Implemented standard operating procedures for the Help Center and TSS (desktop) support which has resulted in enhanced service and support to our customers.

Matrixed Help Function – Began moving toward creating a unified support structure for all UConn affiliated Help Desks and Technical support areas through Help Center Unite. CS &R initially sponsored a "Let's Talk" luncheon for representatives of the various distributed Help Desks to begin the conversation surrounding a matrixed help function and environment for UConn. This group has monthly meetings that will be ongoing.

III. Enterprise & Customer Business Applications

Peoplesoft Student Administration System Implementation - During the year, UITS placed in operation the remaining four (4) modules of this system. These included the Admissions module in July, 2004, the Student Financials module in October, 2004, the Financial Aid module in February, 2005 and the Immigration Tracking module in April, 2005. These four modules are now added to the Registration and Enrollment module, which had been implemented in 2002.

Towards the end of this year, we began our planning to upgrade to Peoplesoft version 8.9. This migration is important for several reasons including positioning for the upcoming Human Resource system implementation, acquiring new system features that expand self-service functionality and simplify the use and interaction with the system. This version also will position us to take advantage of new technology and features planned by the vendor (Oracle-Peoplesoft) as they consolidate several systems to a future release called "Fusion" over the next several years.

Human Resources System Planning - During the year, we began our planning for implementation of the Peoplesoft Human Resources system next year. We project this effort to be an 18 to 24 month effort that will replace our aging Genesys system with a system built on more modern technology. This effort will be done simultaneously with an

identical effort at the Health Center who will operate the system on the University's Storrs-based computer facilities. This project is expected to identify several "synergy" opportunities between these two organizations using similar technology and processes to make the job of administering our most important resource, people, more productive and efficient.

During the year a Planning RFP and a Consulting Services RFP were prepared and awarded to acquire the necessary supplemental project resources to accomplish this effort. Acquisition of these resources is expected to begin in July, 2005. UITS began work on renovating a project office on the Depot campus to house and support this effort. In addition we began efforts to acquire a full-time Project and Services Manger to lead the project and support it on an ongoing basis.

Downline System - The Downline system is essentially a series of programming links between old and new systems. Unfortunately, legacy systems are very difficult to completely eliminate since a host of reporting tools, procedures and other linkages must be replaced before one can fully replace it. However, during this year, substantial progress was achieved due largely to the fact that users have developed alternative reporting methods that have resulted in our reduced dependence on the Downline system. From a list of over 200 items earlier in the year, we currently have identified only 40 items that remain. Some of the remaining components include key systems such as the Faculty Evaluation system, Grade Distribution, Census reports and other essential elements, which will require significant efforts to redesign and replace. We have continued our work to replace these. We are currently discussing the Faculty Evaluation system so that we can eliminate its reliance on the Downline.

Effort Reporting - In UITS continuing efforts to improve project management performance, a research project was initiated and completed to examine solutions and tools for project managers to be able to improve their ability to estimate and track project and staff resources and activities. The goal of this initiative is consistent with our overall goal of improving our division-wide project management methodology and skills. This improvement will enhance UITS predictability, make better information available about our resource utilization and improve our operating efficiency. Continued efforts on this initiative in the upcoming fiscal year include plans to acquire an effort reprting software solution and implement it on a pilot basis later in the year.

Identity Management - 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 Identify Management group, we continue to enhance this system to keep up with essential identify management requirements. We modified this system to reduce the turnaround time for getting a NetID from three days to one day resulting in significant improvements in service to new faculty and staff. Modifications were also completed to include the Heath Center staff and students in order to facilitate their use of WebCT. We also improved the persistence of the NetID so that continued contact with graduating students and others can be achieved via email and University resources continue to be available for those systems that rely on the NetID for authorization.

WebCT Activities - WebCT Campus Edition ongoing production activities include creating courses each semester, restoring archived courses for faculty when requested,

archiving courses at the end of each semester and dealing with everyday maintenance issues. On the development side, the new version of WebCT called Vista has been set up on a test server and configured for a pilot in Spring 2005 semester. Meanwhile the clustered production server is being configured for Fall 2005 extended pilot. The feed back from the first pilot is being used in production configuration. The clustered environment issues- which is being used for the first time in UITS projects- are also being dealt with.

Web Development Lab Activities - During the past fiscal year, Web Development lab created 131 web accounts on the Central Web server and transferred over 60 websites from the SP server to the Central web server. Also designed websites for School of Social Work (main school, Puerto Rican and Latin American, Advanced Political, Student Site), Environmental Policy, Technology Incubation Program, HuskyPC, Exchange mail, Asian American Cultural Center, UITS, IntraNet, UConn Phonebook, Stamford Campus, Human Resources, Payroll, Wireless, Journalism and Vista project. Also wrote applications for Environmental Health and Safety Biological, Chemical, Radioactive waste pickups and Temporary Food Service Events, Student Registration Advising - Waterbury campus, Connecticut Transportation Institute, Provost Office and transfer admission.

Epolicy -E-policy is a centralized on-line document repository that stores University policies and department guidelines. The ePolicy project began with a request to replace the existing application that was running on an infrastructure that was being discontinued. In addition, there were a number of issues in the application that were identified as needing improvement. Requirements were gathered, a plan was generated and resources assigned. By 1Q05 the old system was terminated and the new system put in place with the requested improvements.

Eportfolio - The University charged UITS with building a centralized system for student Electronic portfolios. A committee determined a technology direction, and with approval from the Provost, steering, implementation, and build teams were formed. A plan was designed to implement a pilot evaluation in the Fall of 2004. A successful pilot began 9/2004 and is in use today. Upon completion of the fall semester 2005, an evaluation was conducted and a report was sent to the sponsor 1Q2005. A follow-up project plan has been developed to implement the next phase of eP ortfolio for 4Q2005.

PYRAMED -Pyramed is the application purchased by Student Health Services to keep track of their data and bring them to compliance with HIPAA regulations. The automated interface between PYRAMED and Student Financial system is almost completed. A Citrix implementation is being tested with the Pyramed application.

Study Abroad - CBA worked with the Study Abroad Department to purchase a new Studio Abroad application. The new application is in production. A SLA was also written to identify the details for the support and is now in place.

Financial Systems Evaluation Project - During the year, an initiative to assess the need for a Finance Systems replacement of the legacy FRS system was completed. The project assessed the needs for fiscal systems management for the University to determine a direction on this important function. Computer Sciences Corporation was engaged to facilitate this effort.

IV. Information Technology Security & Policy

Policy Development – Over the past year, we have developed and published 14 policies on data access and security and provided information sessions to various University groups concerning the development of procedures in support of these policies. In addition, we have reviewed and revised six existing policies. We have been monitoring what is happening on the federal and state levels, and as a result recommended and drafted a policy on the University's use of social security numbers.

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

- In collaboration with Purchasing, and to comply with one of the new policies, we developed and distributed software and procedures for wiping data from desktops.
- We developed a form/process model for University departments to conduct their own risk assessment and piloted the model both within UITS and with the School of Education. In the coming year, we will continue to pilot this model for other departments/units and then make the model available university-wide.
- We formed the Council of Data Stewards, developed an action plan. We have begun to document information on the University's data, including identifying the data steward and data custodian for subsets of the University's data.

Project Management – We continued to refine and introduce into the organization the methodology that was adopted last. We have provided training to over 40 individuals in the use of MS Project (the project management tool selected for use within the organization). We have begun to centrally capture information on the progress of our IT projects and have developed a template for reporting our progress to management. In addition, we have begun to use our intranet for maintaining project related documentation.

Participated in Connecticut's TOPOFF3 Cyber Exercise in order to demonstrate our ability to respond to and/or minimize the impact of potential damages caused by anticipated and unanticipated disruptions to our networks.

V. Networking & Telecommunications

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

- Public Safety -design and upgrade to wiring in the Public Safety building as well as the Code Enforcement Office out at the Depot campus
- President's Residence -upgraded the network, including voice, data and video services); in the President's residence.
- OSP/ISP Design – All projects going forward will have the ISP(Inside Plant) and OSP(Outside Plant) designed by UITS Network Engineering.
- CUE - Installed new switches in the CUE building in order to upgrade network.
- Gulley Hall – Upgraded the wiring and switches in Gulley hall in order to increase the speed and reliability of the network at this location.

- Haddam Cooperative Extension – Re-wired complex, upgraded data switches and connection, installed new phone system with voice mail.

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

- Replaced the some of the wiring and upgraded all closet connections in the Nathan Hale Inn.
- Implemented traffic shaping to better monitor network traffic usage on both the student and administrative networks.
- Implemented Network Management Software with the installation of CISCO Works package to enable more efficient network management.
- Updated switch configurations on all CISCO equipment to maintain currency.
- Upgraded Network cabling in Family Studies.
- Upgraded Speech and Hearing network to be HIPAA compliant.
- Upgraded Stamford and Andover cottages so they are supported by LRE (Long Range Ethernet).
- Moved the location of the fiber in the Young building.

Synergy – During the year Networking and Telecommunications worked jointly with UCHC on various synergy efforts including:

- Joint participation between UCHC and Storrs in reviewing all dedicated and long distance telecommunications services. Savings $659,000
- Joint participation between UCHC and Storrs in construction related projects was begun at the Torrington and West Hartford campuses.
- Participated in an evaluation of a CIMS (Computer Information Management System) to be used across all campuses including the Storrs Campus and UCHC.

Wireless Activity - Secured funding in order to begin a rollout of wireless network hotspots on campus. This included the planning and design work; wiring for access; programming of access points; upgrading network to support Vlan extension; installation of switches and access. This project included 21 buildings and 31 locations around the campus. As of May 31, the project is 90% complete and approximately 40% under budget.

Network Master Plan – Began implementation of the network master plan. Initial project included:

- Funding was secured for Phase I of the plan and the initial equipment order was submitted.
- Project accounting procedures were established in order to track spending against all NMP sub projects.
- Priorities were established identifying the initial buildings to be completed in Phase I of NMP.
- Began planning, auditing and site work on priority locations identified in Phase I.

Network Standards Document - The standards document was updated and published on November 1, 2004. This is used as the guide for all new construction and renovation projects on campus.

Network Security – Various initiatives were undertaken related to network security including:

- Implemented a network VPN solution in order to meet HIPAA requirements for Health Services.
- Established procedures and created all appropriate tools to begin the roll out of the NetReg system for the new fiscal year.
- Participated in Project TOPOFF3.
- Attended a security workshop with peer institutions. Placed second amongst a group of twenty teams in a security competition at the workshop.
- Took over support of firewalls for both Public Safety and Athletics.

HuskyVision - Eliminated premium channels, removed all associated equipment, re-configured existing equipment, and installed new to provide necessary signal strengths for basic service in all residential facilities on the main campus.

Construction Projects - The following projects were worked on 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.

Avery Point
Beach Hall
Benton Museum
Bronwell Engineering
Gampel Pavilion
North Campus Complex Offices
Pharmacy
Student Union
Towers Dining Hall
UITS MSB
West Hartford Campus Library

Cellular Telephones - Established contracts with three cellular providers, migrated existing users with individual departmental contracts over to Telecommunications contracts, created new marketing documentation to provide information and resources to the University Community.

Uniform Call Distribution (UCD) - A uniform call distribution program was created for the Help Desk to professionally handle the incoming calls, as well as a redesign on the voice mail menu. This eliminated the need for callbacks.

Automatic Call Distribution (ACD) - Issued an RFI to review potential ACD systems compatible with are telephone switch that will replace the UCD programs we have in

place and offer more feature rich and customized options. The ACD system is currently out to bid.

SBC Maintenance Contract – We re-evaluated SBC maintenance contract to eliminate unnecessary services. We were able to cut back the number of on-site SBC staff and reorganize the department to handle those duties. Savings of $550,000

Ad-hoc Cabling - We went out to bid and issued a PO for ad-hoc cabling services to provide flat rate pricing to the end user on the installation of additional voice, video and data jacks. This does not address projects; it is for individual department requests. Result was decrease in time service and decrease of approximately 300% in cost.

Fiscal Group - A strong emphasis was placed on the fiscal health of the department and where our money was being spent. This will continue to be a top priority for the department.

Two Access databases became operational this year. One was to track the expenses of the Data and Telecom operational budgets and the other to track the Infrastructure Projects. Both databases streamlined the tracking and reporting process; eliminating duplication of effort, producing management reports and providing a mechanism for the timely closing out of projects and reconciliation of accounts on a monthly basis.

- Closed over $200,000 of open PO's freeing up money that no longer needed to be committed.
- Performed a detailed audit of SBC revealing an over billing of $540,000 for PRI removals, $3,300 in excess freight charges and $55,000 in annual savings by removing circuits that were not needed.
- Performed a detailed audit of Paetec Communications and revealed an over billing of $11,500.
- Provided detailed monthly Balance Sheets with all associated details that are used in our fiscal as well as technical planning sessions.
- Hired Diana O'Donnell as a Business Services Supervisor who is responsible for tracking all project spending and PO's. Diana's work allows project managers and staff to concentrate on the actual project without dealing with the fiscal side of any project.

VI. Computing Technology Infrastructure Support

Computing Technology Infrastructure, which includes the areas of Server Support, Data Management Services and Network & Server Operations, has achieved the following during FY 2005.

Server consolidation: - Purchase and installation of an IBM zSeries 890 server to support consolidation of Linux services. Most services that can be migrated to it have been migrated, including ftp, proxy, and several instances of ldap. Additionally, a file services project is well under way, and plans exist to install the production e-portfolio service and the USD service on this platform.

Expansion of the IBM pSeries 690 Server - The IBM pSeries 690 server has been expanded to provide a platform to support Enrollment Management, Oracle Consolidation and Identity Management. We added eight processors, 16 GB main memory and the necessary peripheral I/O devices necessary to attach the server to the data network and the storage area network.

Consolidated Oracle Database Server - A consolidated oracle database service has been constructed on the pSeries 690 expansion. This has been set up with great care to maximize reliability while minimizing personnel costs to support it. Currently, several test databases exist on the server, with aggressive timelines to move them into productions. The services benefiting from this consolidation include AdAstra, PyraMed, USD, Pinnacle, PayBase32 and others.

Physical Security Access System - The project started last year to provide a new physical security access system has been completed. Extensive training of the operators has resulted in the elimination of the critical person dependency that existed in the old system.

Data Warehouse Services - Extensive research by the DMS team has led to the development of a Data Warehousing Services Implementation Plan for moving the data warehouse service to the next level to meet the demands of upper administration for timely information for reporting and/or projecting. The plan includes recommendations for tools, personnel, and the hardware infrastructure required to achieve these goals.

PayBase32 - A new infrastructure was purchased, installed and configured to support the PayBase32 service for Accounts Payable. The service requires Windows and Oracle support.

Dropbox Utility - In response to complaints that an attachment size of 25 MB was too limiting, we developed a self-service application called dropbox that a web front-end to ftp that allows a user to upload a file to the ftp server and send a link to it to the intended recipient. It is secure and no accounts or passwords are required. We have received many compliments on this service.

Storage Area Network (SAN) – Several projects dealing with enterprise storage were completed during this year including:

- Expanded the Enterprise storage subsystem, the Shark, by three Terrabytes to support WebCT Vista, Enrollment Management, and the zSeries Consolidation Server.
- Integrated the Sun WebCT Vista servers into the Storage Area Network (SAN).
- Integrated the zSeries Integrated processor For Linux and the General Purpose system into the SAN, breaking new ground in integration of mainframe fiber channel devices on the SAN.
- Integrated the consolidated Oracle database server into the SAN.
- Expanded Automated Tape Library by adding two IBM 3590 tape drives to support WebCT Vista, the zSeries and the pSeries expansion.

- Added two fiber channel switches to support the additional devices connecting to the SAN.

PeopleSoft Infrastructure Support - Cross-trained two Windows staff members to support the PeopleSoft Windows Architecture and Made significant improvements in the networking configurations of the PeopleSoft infrastructure.

Active Directory - Executed numerous Service Level Agreements's with University departments for Organizational Units (OUs) within the central UITS Active Directory. This is significant in that it shows the collaboration that is starting to exist in the UConn IT community.

Document Imaging - An upgrade to the ImageNow service that supports Student Financial Aid Services and the Bursar's Office has recently been completed.