

UC DAVIS REPORT TO INFORMATION TECHNOLOGY LEADERSHIP COUNCIL (SEPT. 2006)

New Vice Provost-IET. Peter M. Siegel, an expert in university information and learning technologies, became UC Davis' new vice provost for Information and Educational Technology (IET) and chief information officer on August 15. The position is part of the chancellor's cabinet, and reports to both the chancellor and provost. Prior to this appointment, Siegel was CIO at the University of Illinois at Urbana-Champaign. Throughout his career, Siegel has been involved in both national and state professional organizations, as well as in nationally recognized technology partnerships with other major research universities. He is a member of the Educause-Internet2 Security Task Force Executive Committee, and is working with the American Council on Education and Educause on security policy issues. He speaks regularly on computer privacy and security issues, collaboration technologies, and the role of technology planning in the academy (see vpiet.ucdavis.edu).

Siegel succeeds Peter Yellowlees, who served as interim vice provost of IET from May 2005 to August 2006. Yellowlees returned to his appointments as a professor of psychiatry and director of academic information systems at the UC Davis Health System.

Sakai Deployment. In close collaboration with the Schools of Medicine and Veterinary Medicine, IET is coordinating a campus initiative to implement Sakai. Highlights from the last few months:

- Since the launch of the pilot earlier this year, over 1,000 unique users have logged into the campus instance, resulting in the creation of close to 500 project sites and 150 course sites. Early adopters include research units interested in using collaborative tools to manage their projects, graduate students wishing to organize their dissertations, and instructors who are constructing course sites.
- After a successful summer pilot, IET and the Faculty Nurse Practitioners Program have decided to extend their relationship, and IET will continue to host FNPP courses through the fall.
- The School of Veterinary Medicine piloted Sakai in spring of 2006 and is now gearing up for a full roll-out to all courses, faculty, and students this fall.
- Meanwhile, IET will continue promoting project, class and research site creation throughout the academic year in preparation for the official launch in Fall 2007. Additional goals and projections include: providing dynamic rosters to course sites, exporting question pools from MyUCDavis, improving Message Center performance, as well as performing various hardware upgrades. These upgrades will allow for application server clustering, the movement of file storage to a shared file system (AFS), load balancing, and other performance improvements.
- UC Davis continues to work closely with UC Berkeley and Stanford, providing programming support for enhancements to the grade book and tests/quizzes modules.
- See smartsite.ucdavis.edu.

Avian Flu Pandemic & Emergency Planning. UC Davis is developing, with contributions from each of the deans and vice chancellors, a plan to keep the university up and running in the event of an avian influenza pandemic (safetyservices.ucdavis.edu/emergencymgmt/AvianInfluenza.cfm). As part of these planning efforts, IET has drafted a technology continuity plan and developed a document outlining options for mitigating telecommuter access issues. In addition, the following activities are underway:

- Discussions with UCD Health System about where the two institutions could be mutually supportive in an emergency.
- Possible implementation of GETS (Government Emergency Telecommunications Service), which provides National Security Emergency Preparedness personnel a high probability of completion for their phone calls when normal calling methods are unsuccessful. The system is designed for periods of severe network congestion or disruption, and works through a series of enhancements to the Public Switched Telephone Network (PSTN). To access the service users receive a GETS "calling card" with access phone numbers, a PIN, and simple dialing instructions (see gets.ncs.gov/).
- Development of an RFP for an automated phone notification system that would be used initially at the Emergency Operations Center with the potential of wider spread deployment to other departments.
- Evaluation of "People Locator," the Web-based service developed by UC Berkeley that allows authorized individuals to post messages regarding their health and/or whereabouts for other authorized individuals (e.g., friends, family, and coworkers) to view.

Email Improvements. The amount of email processed through the campus servers continues to grow and is now reaching 60 million messages per month. In particular, the amount of spam continues to increase to the point that it currently represents 75% of all email processed centrally. In order to more effectively manage this load, several measures are being vetted with the campus community:

- Establishing size limits for email messages: 150 MB limit for messages allowed by mail routers, 40 MB for messages delivered to central campus hosts, and 10 MB for those processed via mailing lists.
- Reducing spam. The central email system is having to process increasing amounts of spam, and is becoming increasingly slow and less efficient. (Approximately 381,000 messages are quarantined every day and held in storage for 28 days.) To address these issues, several measures are being considered: automatically deleting the quarantined (i.e., highest-scoring) messages; changing the default setting such that spam would be automatically filtered and users would need to take action to opt out of spam filtering; and reducing the amount of time spam is stored from 28 to 14 days.

A broad consultative process has been initiated, and mitigating measures are being implemented in preparation for an anticipated increase in email traffic around the start of the new academic year. Contact: Doug Hartline, jdhartline@ucdavis.edu.

COMPUTING AND NETWORK SECURITY

UC Davis Cyber-Safety Program (security.ucdavis.edu/cybersafety.cfm)

- **Policy updates:** Revisions proposed by the campus workgroup tasked with reviewing the UC Davis Cyber-Safety Program policy were adopted in July. Two new security standards were added, the list of standards was re-prioritized, and language was clarified.
- **Reporting:** In spring, a workgroup was convened to review and clarify the security standards, identify new central security program initiatives and propose improvements to the reporting tool. As recommended by the Cyber-safety Workgroup, the 2006 compliance reports were completed using a secure online survey hosted on a commercial Web site. The survey was available for report submissions from June 30 to early September. Unit and departmental summary reports were generated on behalf of report coordinators, who used the summaries to develop the final reports for their colleges, schools and offices. Almost 200 surveys were completed using this new reporting tool.
- **Auditing Tool.** A new resource is available to help technical staff assess the level of cyber-safety compliance in their VLANs. This resource, called the self-directed Nessus scan tool, enables technical staff to scan their VLAN or specific systems on their VLAN with the full complement of Nessus 'safe' plug-ins. The tool provides the option to scan systems immediately or to schedule one-time or recurring scans. Information obtained using the self-directed Nessus scan is intended to complement the data from campus scans (secalert.ucdavis.edu/audit).

New Security Software Solutions

- **Searching for Personal Information.** One of the highest priority campus cyber-safety practices is protecting personal information. Knowing where personal information resides on the thousands of computer systems used on campus is critical to effectively protecting this information. The campus will provide the Cornell University Spider open source search utility, and PowerGREP, a commercial software solution, to search a large number of files, folders and archives for particular types of data using "regular expressions," or text patterns, such as the xxx-xx-xxxx pattern commonly used with Social Security numbers.
- **Vulnerability scanning.** A 60-day evaluation of Impulse Point's commercial end-point vulnerability scanning system, SecureConnect, is underway. SecureConnect will help prevent vulnerable computer systems from accessing the campus network and introducing new threats. At this time, the scanning system is being considered for implementation on campus residential and wireless networks.
- **Encryption.** Two encryption products are now available under UCOP system-wide contracts: Pointsec (whole disk encryption) and Credant (folder encryption). IET will fund and implement a central Pointsec encryption service. The project team is developing a campus deployment strategy with input from campus constituents. Initial services are expected to be available in October.

Upcoming Security Awareness Program Components

- **IT Security Symposium.** The official kick-off for the 2007 IT Security Symposium is planned for October. Held on the UC Davis campus, the symposium typically features hands-on instructional labs and lectures on current security issues (itsecuritysymposium.ucdavis.edu). We will be seeking technical staff session speakers from Davis, other UC campuses and the vendor community to share their security expertise with their colleagues. Contact: Bob Ono, raono@ucdavis.edu.
- **Security Video Contest for Students.** Planning is underway for a contest that will encourage all UC Davis students to create a short (3-5 minutes) video that addresses computer security in general or a specific issue within security, such as identity theft, viruses and operating system updates. The winning entries will be integrated into the UC Davis security and ResNet Web sites. We anticipate these videos will be available for other UC campuses.

USER ACCESS AND SUPPORT HIGHLIGHTS

Software Agreements

- **Anti-virus.** In support of the campus cyber-safety security policy, UC Davis has released a bid request that will provide free anti-virus software to all campus departments, faculty, staff, and students. The agreement will provide anti-virus software for servers, stand-alone computers and hand-held devices for five years and home use privileges. The contract is expected by early October.
- **Cdigix.** UC Davis has entered into a one-year agreement with Cdigix, an online music service, to provide free streaming music to all registered students. The service will start at the beginning of fall quarter. This service will provide students with a legal source for digital music tracks and will complement educational outreach activities.
- **EndNote.** UC Davis students, faculty and staff can now download and install free of charge EndNote bibliographic software on both work and home computers. EndNote is used to search databases and to organize and format references for academic and scholarly papers. It runs on Windows and Mac OS, and is compatible with recent versions of Microsoft Word. The "perpetual license" for the software includes updates and support. Contact: software@ucdavis.edu.

Assistance to Students

- **Recommended computer configurations.** This year's computer ownership recommendations encourage students to consider purchasing a laptop for mobility and convenience. The recommendations focus on specific details (e.g., how fast the computer should be, how much disk space is need, etc.). The information is intended to provide students (and their parents) with the information they need before purchasing a new computer (computerownership.ucdavis.edu).
- **Computer support services.** IET has launched a pilot program to provide computer services to students. Those services are billed to the students' Banner accounts (\$69/hr). Much of the support provided involves systems that have been compromised because of malware (desktop.ucdavis.edu).
- **Dorm move-in.** As in past years, twenty or so IET employees will provide live tech support to students during dorm move-in weekend (Sept. 23-24). Roughly 2,000 Internet Tools CDs will be distributed free of charge, and IET staffers will be on site to help answer questions and provide support as students get set up with their computers. CD information: online.ucdavis.edu.

TELECOMMUNICATIONS AND NETWORKING HIGHLIGHTS

Integrated Campus Cellular Service. An RFP was released on August 1 with an option for bidding vendors to provide an integrated cellular management service portal from which campus affiliates would be able to order and upgrade cellular services from multiple service providers (ucdmm.ucdavis.edu/ucdbids/UCDQuote.cfm). Although multiple cellular service providers are used by campus faculty and staff, only Cingular services are processed through IET and included on monthly department bills.

Student Phone Services

- An automated phone ordering system will be available this fall via MyPhone, a student services Web portal (myphone.ucdavis.edu/). The system will walk students through all voice service options, create a work order in the Pinnacle Telemanagement system, print out a work ticket for a field technician, close the order, and bill the service to the student's account. This is a prototype for future automated service order processing.
- Following the large drop in residence hall voice services over the last few years, more than 3,500 phone lines that were not being used were permanently disconnected this summer. These 3,500 lines are now available for redistribution throughout other parts of the campus where phone numbers and cabling have been in short supply.

Next Generation Digital Loop Carrier. UC Davis uses NGDLC to provide voice services to eleven campus locations. An implementation strategy has been developed and initial steps taken to convert various off-campus locations, currently served by AT&T CENTREX service, to NGDLC by using dual optical fiber transport paths back to the main switch. In addition, NCDLC will be deployed in remote geographical "districts" on the main campus using a central hub and installing copper cable to the smaller buildings throughout the district.

EDUCATIONAL TECHNOLOGY HIGHLIGHTS

Podcasting. The popularity of the campus digital lecture recording and distribution program continues to grow. Last Spring, lectures for 18 undergraduate courses were podcast, and a total of 334 lectures were uploaded. Of the 3008 students enrolled in these courses, over 2088 (69% of enrolled students) downloaded MP3 lectures or subscribed to course podcasts. Of the 2088 users, 24 percent had used the system during an earlier quarter while 76 percent were new users (podcast.ucdavis.edu).

Communication and Collaboration Tools. Breeze Meeting was piloted as a communications and collaboration tool for instruction, research, and business meetings. A second pilot program is underway with a competitive product, Elluminate. A decision on which application will be selected for use at UC Davis is expected by December 2006. Selection criteria include functionality, reliability, robustness, cost, ease of integration into the campus Sakai instance ("SmartSite"), etc.

InterWrite PRS. After reviewing five different Personal Response Systems (or "clickers"), a group of UC Davis instructors and staffers selected InterWrite's Personal Response System for the 2006-07 academic year. Having a single PRS will benefit students by allowing one clicker to work in all UC Davis classes. Instructors will coordinate ordering the clickers through the UC Davis bookstore (\$44.90/clicker). The bookstore will buy used clickers at \$22.50. One unit has been purchased for campuswide use (cts.ucdavis.edu/prs/).

Classroom and Lab Upgrades

- Forty-four new data projectors have been installed in classrooms, bringing the total of classrooms in which new data projectors have been installed since summer 2005 to 86. In addition, MyCap Jr VCR decoders were installed in one classroom to accommodate closed captioning viewing.
- Beginning with the summer quarter, all clients with a valid UC Davis Login ID will have 60 free sheets and 30 grace sheets each quarter and summer session. Clients will be charged six cents per sheet starting at sheet 61. All clients are billed through their Banner accounts on a quarterly basis (clm.ucdavis.edu/rooms/printing).
- A new print queue kiosk prototype has been set up in one of the open access labs. This kiosk uses a monitor to show the most recently printed jobs to help clients locate their documents and reduce congestion around the printers. Following the success of the pilot, new print kiosk displays consisting of a 27-inch widescreen LCD HDTV powered by an iMac mini and a new interface will be deployed in several other labs.

ADMINISTRATIVE COMPUTING HIGHLIGHTS

Banner Upgrade. In late August, the upgrade of the Student Information System to Banner 7, originally scheduled for Labor Day weekend, was postponed. Banner users, technical support staff and other campus groups were notified of the change. The additional time will allow the core offices and the Banner team to continue to test the system and ensure that the campus has the best product possible. A new date—one that offers least disruptive roll-out time for the campus—will be announced in the coming weeks (sis.ucdavis.edu).

AD and Exchange Service. The collaboration between Office of Administration (OOA) and IET has reached several milestones. The entire OOA staff is now using Exchange for their email, calendaring, and file sharing needs. IET's implementation is also underway with 350+ users. Standardization on methods for group policies, email services, and automated security and system updates are among the anticipated benefits for technical staff. End-users will benefit from shared calendaring, file sharing, 24/7 remote email and calendar access and centralized security and system updates. The centralized Exchange services, hosted by the Data Center, are also used by Office of Research, Office of Resource Management and Planning, and Student Affairs. Several other departments are waiting to join (xeda.ucdavis.edu/).

PeopleAdmin. Human Resources established an advisory framework with broad campus representation to configure and implement PeopleAdmin. This hosted application transitions staff employment and compensation actions from a largely paper-based process to a streamlined electronic system supporting all phases of recruitment. Upon completion of Phase II in September 2006, Configuration and Quality Assurance, Phase III, Change Management, Campus Communication and Implementation will begin.