

CAMPUS IT INITIATIVES

IT administrative roadmap. In 2007, a workgroup was established to develop a concise roadmap for administrative information technology services at UC Davis. The first phase was initially expected to focus on seven key administrative systems, but after stakeholder discussions in fall 2007 revealed numerous interdependencies between these systems and additional applications and processes, the framework was expanded. The goal now is to address not only common administrative services, but also eight broad administrative systems domains that encompass over 70 identified applications – existing, under development, or planned. These domains are: academic personnel administration; alumni & university relations; enterprise asset management & planning; finance; information technology; payroll/human resources; research administration; and student & curriculum. In all, Exeter Group consultants and members of the Road Map Working Group met with 24 campus stakeholder groups, developed an initial systems map, reviewed technical surveys for 15 key systems, and examined several prior UC Davis studies and white papers. Coupled with an assessment of the architectural landscape, these activities provided the basis for a phase I report. The report and its supporting materials outline Exeter Group's key findings and present a draft framework for a five-year Core Administrative IT Services Road Map. The report and supporting materials are available at vpiet.ucdavis.edu/itroadmap.cfm. Contact: Dave Shelby, drshelby@ucdavis.edu.

UC Davis administrative computing policy. Approved last September, PPM 200-45 (Development and Review of Administrative Computing Systems) is a policy that requires the review and coordination of certain campus administrative systems. Under this policy, project plans will receive structured input from small groups of campus technical leads, functional experts, and potential staff and faculty users. The policy is expected to promote a long-term integrated systems approach for the campus. A number of proposals have already benefited from the process, obtaining significant feedback regarding strategies for risk mitigation, opportunities for further integration, and interdependencies among related constituencies, systems and business processes. Participating reviewers have also received benefits, via increased awareness of peer plans, aspirations and associated feedback. See vpiet.ucdavis.edu/adminpolicy.cfm. Contact: Dave Shelby, drshelby@ucdavis.edu.

Strategic telecommunications directions. Throughout the last quarter, IET has shared its plans for the next generation UC Davis network and telecommunications services with various academic, research and administrative campus leadership groups, and gathered valuable feedback. Earlier this month, Provost Horwitz committed incremental funding to bring the strategy to reality, enabling UC Davis to provide telecommunications services commensurate with its R-1 research status. The plan provides a view of telecommunications investments over a rolling six-year window, and includes expanded wireless networking, increased network speeds in most campus locations, research network expansion, and enhanced security throughout the campus network environment. IET has already begun some deployments, such as expanding wireless coverage and security. Additional network upgrades are scheduled to begin this summer. Contact: Mark Redican, IET-Network Operations Manager, mredican@ucdavis.edu.

Chancellor's Fall Conference Report. In September, the topic of the annual UC Davis Chancellor's Fall Conference was information technologies as a vehicle for innovation. Conference attendees explored a variety of topics, from IT in research and scholarship, to IT in teaching and learning, and IT in outreach and engagement. The conference resulted in a set of preliminary recommendations for leadership in information technologies, including ideas on IT governance and how best to ensure that IT directly and effectively supports the strategic goals of the institution. In late October, Vice Provost Pete Siegel established the Chancellor's Fall Conference Action Plan Committee and charged the group with developing a brief vision document and a specific set of follow-up recommendations based in part on the preliminary conference reports. The committee is headed by AVC-Research Bernd Hamann (bhamann@ucdavis.edu). A report is planned for February. vpiet.ucdavis.edu/fallconference.cfm

Data center collocation. As part of IET's emergency preparedness planning, the campus Data Center and UC Davis Medical Center are working together on developing a collocation model that will connect the campus and the medical center together. The redundant architecture created by IET will utilize an existing fiber optic connection. The project will start off small with the goal of documenting both processes and infrastructure requirements to help implement a larger-scale collocation in the future. Contact: Morna Mellor, Director, IET-Data Center, mwmellor@ucdavis.edu.

SmartSite. Fall 2007 marked the first quarter SmartSite was in full production and available to all faculty, students and staff. Instructors created 266 of the 504 total fall quarter course sites in September alone. Users also began creating large numbers of project sites to meet their online collaboration needs for research groups, administrative projects, dissertations, and more. Since July 2007, 672 project sites have been created. The increase in usage can be attributed to a dynamic training program, comprehensive communications campaign, presentations at campus events, and word-of-mouth from current users. Major milestones from fall include:

- A system upgrade to fix a database issue that made it difficult for users to log in to the system during heavy usage
- An upgrade to the Assignments tool to resolve a bug that caused duplicate assignment entries
- The migration of the system to an Oracle RAC database cluster
- A fix to an issue that gave some users a white screen after longer sessions
- The addition of a feature to add faculty hires to the system three weeks before their official start date
- A record number of concurrent users during final grading, and 115 out of 504 fall course sites submitting to the Registrar's Office.

A faculty advisor committee is being established to help guide the development of the system as the campus transitions away from the MyUCDavis course tools and address issues like the addition of guest users to the system, the role of TAs in course site creation and improving the features of the SmartSite Gradebook and Test & Quizzes tool. See smartsite.ucdavis.edu. Contact: Kirk Alexander, program manager, kdalex@ucdavis.edu.

IT architect recruitment. UC Davis has resumed its search for an IT Architect. This senior technology position will be responsible for analyzing, designing and deploying the computing infrastructure architecture across campus. An external recruitment firm, Martin Baker and Associates, has been engaged to conduct a national search effort and identify qualified candidates for consideration. Interviews for the position will be scheduled in January and February. See vpiet.ucdavis.edu/itarchitect.cfm. Contact: Bob Ono, raono@ucdavis.edu.

IT PROJECTS SPONSORED BY CAMPUS UNITS

MyInfoVault. The Faculty Merit and Promotion (or MyInfoVault) Project is sponsored by Academic Personnel. MIV creates faculty digital portfolios in support of academic merit and promotion actions. An upgrade is in progress for the Web-based application to improve the overall architecture and to create a more intuitive look and feel and better functionality. During the upgrade, the current practice of allowing HTML codes to be entered and stored directly in the database was in conflict with the new process to create review documents and for maintaining MIV as a pure data repository. A solution was identified to remove the HTML codes and provide tools and processes to apply the formatting that was previously provided by manual data entry of the HTML codes. The development of this solution is nearly complete and testing will begin soon. Additional functional improvements are also in development and will be tested this spring. The upgrade is expected to be released by June 30. Schools and colleges representing 125 departments and 3,100 accounts are involved in the pilot. See myinfovault.ucdavis.edu. Contact: Debbie Lauriano, Director-Application Development, dalauriano@ucdavis.edu.

Electronic Research Administration. The Office of Research will recommend to the campus eRA stake holders that we discontinue using InfoEd's grant tracking software, and join the Kualii Foundation to bring their Research Administration (KRA) system online. Since the campus will be implementing the Kualii Financial System (KFS) the addition of KRA will provide an integrated pre- and post-award system for tracking proposals for their entire life cycle. The first step will be to implement KRA's proposal tracking system, while an in depth analysis is conducted on the feasibility of deploying KRA's proposal development and electronic submission modules. The conversion to the KRA system is expected to take two to three years. During this transition period a more cost efficient interim system will be developed for inputting proposal and award data so that campus reporting will not interrupted. Contact: Keith Young, Office of Research, kyoung@ucdavis.edu; Mike Allred, Office of Administration, jmallred@ucdavis.edu.

Effort Reporting. The new Effort Reporting System (ERS) is used to meet federal requirements for reporting employee effort on federally funded projects. In December, effort reports covering the nine-month period of January through September 2007 were generated and released to campus. As of mid-January, more than 80% of the 7000 reports for this period have been certified. After this reporting cycle, effort reports will be generated on an annual basis covering the twelve-month period of October through September. A planned spring upgrade to the system will provide enhanced reporting to help departments monitor the status of their reports more effectively. See accounting.ucdavis.edu/projects/ERS. Contact: Mike Allred, Office of Administration, jmallred@ucdavis.edu.

PeopleAdmin Project. After a hiatus, during which Human Resources engaged in extensive process review, the project is now scheduled to be implemented in September 2008. PeopleAdmin is a web-based, hosted application for managing position descriptions, recruitment activity and applicant tracking. This system streamlines the entire position management process and enables departments to view, monitor and manage all in-progress, pending and historical vacancy, classification and compensation actions from a single screen. Job applicants will be able to apply to several positions with one application and receive real-time status of their applications. Contact: Michelle Platten, Director-HRIS, Office of Human Resources, mhplatten@ucdavis.edu.

SIS revitalization. Fall quarter saw much progress in the effort to catalog what business needs have been implemented in the UC Davis version of Banner. Office of the University Registrar and IET staff have met with consultants from our vendor SunGard Higher Education and combed through the system bringing to the surface UC Davis business needs and local changes that could be backed out. This process is almost complete. The team has started creating a project proposal with a cost-benefit analysis and a recommended path forward to revitalize Banner and increase the flexibility and responsiveness of the system. The resulting project will be vetted with campus groups. Contact: Debbie Lauriano, Director, IET-Application Development, dalauriano@ucdavis.edu.

Course approval system. The Course Approval Project workgroup prepared an initial proposal in the fall which described three possible scenarios: in-house development; use of a product called Decision Academic; and consideration of the development work that UC Santa Barbara is initiating. The Decision Academic product is offered by the same company who offers Degree Navigator, a degree audit product which the campus already uses. The Decision Academic product is very attractive because it requires less integration work with existing campus systems than the other two options, and can be implemented in a matter of months. This proposal was presented to the CAF Advisory Committee in January. The CAF Advisory Committee requested additional information before recommending which path to take. Contact: Debbie Lauriano, Director, IET-Application Development, dalauriano@ucdavis.edu.

GradSMAART project. Graduate Studies successfully rolled out its Graduate Application Review Database (GARD) at the beginning of October. This is one of the components of the Graduate System for Management of Admissions, Alumni & Records Tracking (Grad SMAART). While the programming staff continues to make system improvements, system usage continues to rapidly increase. This concluded an 18-month collaborative effort between Graduate studies staff and IET on the system implementation project as well as supporting work on the National Research Council Graduate Studies Survey. Contact: Debbie Lauriano, Director, IET-Application Development, dalauriano@ucdavis.edu.

Emergency planning. Fall brought about significant progress on the implementation of the W.A.R.N. system. After careful consideration, the UC Davis Medical Center has opted into the system and will join with the campus to receive emergency notifications. Chancellor Vanderhoef appointed a Notification Implementation Taskforce (NIT) in September to oversee all aspects of the roll-out in early 2008. In the meantime, IET has developed an API from the campus online directory to W.A.R.N., with contact information being uploaded nightly. A test will be scheduled to monitor network capacity and limitations, and a conference is being planned on campus to share the results with other IT groups and emergency managers system wide. Several other projects are also in progress between IET and Safety Services. They include: a campus siren, addressing the emergency call center and the creation of a system-wide initiative to standardize the campus' business continuity plans ("Restarting UC"). See safetyservices.edu/emergencymgmt. Contact: Laine Keneller, IET project manager, lwkeneller@ucdavis.edu.

Web CMS. Co-sponsored by University Communications and IET, the Web Content Management Initiative is a multi-phase plan to encourage campus units and departments to more efficiently publish and manage the content of their department and official UC Davis Web sites. The requirements and evaluation committee—which included technical and Web publishing representatives from academic and administrative units across the campus—assessed campus needs for a Web CMS, then evaluated 150 potential sources before narrowing that list. Their recommendation was discussed with the steering committee in early January. The next steps include the formation of the implementation committee which will be responsible for developing and implementing a plan to guide the integration and deployment of the selected solution. Included in this phase is the development of a pilot program to begin in late winter quarter. See cms.ucdavis.edu. Contact: Elliot Lopez, project manager, ellopez@ucdavis.edu.

iTunes U. UC Davis launched its iTunes U site in January. The project is jointly sponsored by University Communications and IET. The existing campus podcasting system is being used as the iTunes U staging server. While all course podcasts will continue to be delivered by the campus podcasting system, instructors will soon have the option to further distribute course content through the public side of iTunes. UC Davis is using the service to support both public and private content distribution. Content in the public portion of the site will be available to the general public on January 31; the private portion (currently available) requires a valid campus login ID and Kerberos password. Content within the private portion can be further restricted by enrollment depending on participation of specific schools or colleges. IET is piloting a custom user authentication protocol between the central iTunes U service and the School of Veterinary Medicine. IET has also developed a web application allowing UC Davis affiliates to apply for participation, and once approved, upload their own content to a staging server. From this point, the content is automatically converted to a standard format, branded with UC Davis headers and trailers, routed for approval, and uploaded to the iTunes U site. Work is in progress to integrate the existing campus podcasting system (in use since Fall 2005) with the iTunes U distribution channel. Support for additional distribution channels (e.g., Youtube) is in the design phase. Contact: Charlie Turner, IET technical developer, cjturner@ucdavis.edu; Susanne Rockwell, program coordinator, sgrockwell@ucdavis.edu.

COMPUTING AND NETWORK SECURITY

See security.ucdavis.edu. Contact: Bob Ono, IT security coordinator, raono@ucdavis.edu.

Cyber-safety reports. After reviewing the annual cyber-safety reports submitted in the fall by each college, school and administrative office, the IT security coordinator—working with technical leads across campus—will identify campus programs with information security challenges and determine how best to use policy and technology resources to improve campus information security levels. Vice Provost Pete Siegel and the IT security coordinator will soon begin to meet with deans, vice chancellors and vice provosts to discuss the security findings from their respective organizations and explore possible solutions. In the spring, IET will provide an annual report to the Council of Deans and Vice Chancellors (CODVC) and Internal Audit Services.

Network admission control RFP. The network admission control (NAC) project team is expected to re-convene in late winter quarter to review the previous request for proposals (RFP), which was cancelled last year after it was determined that no product at that time met campus requirements. A network admission control (NAC) system interrogates computers and other devices that connect to the campus network to ensure that they meet security requirements before granting access to the network. When selected, the NAC is expected to be deployed first on ResNet and then for wireless and guest services. See vpnet.ucdavis.edu/init_endpoint.cfm

Kerberos KDC project. In Fall 2007, Vice Provost Siegel charged a campus committee to work with key stakeholders to define Kerberos KDC technical requirements and develop evaluation scoring criteria. The group will begin testing Kerberos KDS replacement options in February. A replacement solution will be selected in April; migration to the new service is scheduled to start in May and will continue through December 2008. Kerberos is an integral architectural element for campus authentication. Kerberos is the most secure single factor authentication method available and is used by campus web authentication services.

Web application security. Training sessions were held in October and December to help orient campus technical staff to Watchfire's AppScan Enterprise software. This software is used by web developers, content managers, database administrators and system administrators to check web application for security vulnerabilities. More than 30 people attended the day-long basic training sessions in October and 22 attended the basic and advanced sessions in early December. It is expected that training attendees will use AppScan Enterprise in test, development and production instances to identify and repair vulnerabilities such as SQL injection, cross site scripting and buffer overflows. IET has provided training and software licenses at no cost to campus units. Web application security is one of the newest Cyber-safety standards, added to the policy just prior to the 2007 reporting period.

System-wide UCSIRC meeting. During fall quarter, the UC Security Incident Response Coordination (UCSIRC) group met at UC Davis and at UC Irvine to review its charter and operational procedures. These meetings provided an opportunity for UCSIRC members to meet each other, establish a steering committee and review secure incident reporting practices. Alternative electronic methods to enhance secure communication between UCSIRC members were identified and will be reviewed in a follow-up meeting to be scheduled during the winter quarter.

Intrusion prevention system. The four-week testing period for the intrusion prevention system (IPS) began December 6. During the testing period the IPS was up and running, but not blocking any traffic. The purpose of the test period was to monitor the system and gather feedback from the campus technical community regarding IPS accuracy. Following a successful test phase, malicious traffic blocking—the primary function of the IPS—was implemented. Campus VLAN contacts receive email notifications alerting them to the most serious issues identified by IPS as emanating from a system on their VLAN. While the implementation of this service will help protect the campus network from a wide variety of attacks, campus security remains dependent upon the vigilance of the technical community and their prompt resolution of issues identified by the IPS and other components of the campus security architecture (e.g. Nessus scans, honeypot). See <http://secalert.ucdavis.edu>.

CAS upgrade. Over the past few months, significant progress has been made to increase functionality, stability and reliability of the Central Authentication Service (CAS) server configuration. CAS was recently upgraded to version 3.1 which supports SAML and is used in the UC Davis Gmail pilot. A noteworthy attribute of the new software implementation is the login screen which now supports UC Davis graphic standards. For the end user, the transition from the old authentication application to the new CAS application will be invisible excluding the look of the newly modified interface. Distauth, UC Davis' current Web sign-on system, will eventually be replaced by CAS for all applications. See confluence.ucdavis.edu/confluence/x/eFY. Contact: Hampton Sublett, IET-middleware project manager, hbsublett@ucdavis.edu.

TELECOMMUNICATIONS AND NETWORKING

Campus directory. In mid-December, an email notification was sent to every UC Davis staff and faculty member asking them to update their directory listings. The announcement included instructions on how to update individual listings online, and a description of the future integration plans between the online directory and the campus emergency notification system. On January 22, a snapshot of the online individual listings was taken and used to start the process of publishing the printed campus directory. As of January 22, many UC Davis faculty and staff had reviewed their listings: 10% (3500+) had updated their contact information and another 2.5% (800+) updates are awaiting approval by online directory approvers. These figures illustrate great improvement to the accuracy of the online People Search and the listings that will be printed in the 2008 Campus/UCDHS Directory. This tremendous response to the email campaign augments the earlier efforts of approvers who updated many of the individual listings in their departments earlier this fall. The printed 2008 campus directory is expected this spring. See listings.ucdavis.edu. Contact: Zack O'Donnell, Telecommunications Service Manager, zmodonnell@ucdavis.edu.

Cellular coverage. IET and the office of Real Estate Services have now completed negotiations and signed agreements with three primary cellular carriers (Verizon, AT&T, and Sprint) to install cell sites on the main campus. A fourth agreement is still being negotiated between UCOP and T-Mobile. During the holiday break, Verizon completed construction of their new cellular site next to the North Quad parking structure. The new site is

fully operational and should increase reception for Verizon cellphone users placing and receiving calls on campus. The AT&T and Sprint agreements were signed in the fall and both vendors expect new cellular site construction to be completed during 2008. See wireless.ucdavis.edu. Contact: Zack O'Donnell, Telecommunications Service Manager, zmodonnell@ucdavis.edu.

EMAIL ENHANCEMENTS

UC Davis Gmail pilot. On January 16th, 500 undergraduate and graduate students, randomly selected across academic classes, majors and most colleges, were invited to try Gmail as their UC Davis email program. If the six to eight week tryout meets campus objectives, the Google email service might be offered to all UC Davis students starting this fall. Students who use the system will notice big changes from the current campus Web-based email system. Changes include more storage for messages (Google offered 5GB per account as of December, several times larger than the campus's 40MB); an ability to access email from cell phones, BlackBerries and other mobile devices; and the option to use tools in Google Apps, such as the calendar. Students will keep their @ucdavis.edu address and be able to access their accounts from the MyUCDavis Web portal or directly through the UC Davis Gmail Web site. Participating students will be surveyed several times during the tryout to see how the service is working for them. IET will evaluate the results and offer a recommendation this spring. See gmail.ucdavis.edu. Contact: Morna Mellor, Director, IET-Data Center, mwmellor@ucdavis.edu.

Cyrus email service outage evaluation. UC Davis email architecture includes the use of Cyrus for mail delivery, storage, and retrieval. Email accounts were migrated to Cyrus by August 2007. However during the second week of September one of the Cyrus servers experienced intermittent outages. IET identified one source of these outages, a bug in the underlying ZFS file system. Sun engineers are working with IET system administrators to determine if Sun can provide a zfs patch. An independent review group led by Dean Enrique Lavernia of the College of Engineering has also been evaluating the email service disruption, and will report their conclusions to Vice Provost Siegel in the coming weeks. See vpiet.ucdavis.edu/email.storage.cfm. Contact: Morna Mellor, Director, IET-Data Center, mwmellor@ucdavis.edu.

Campus anti-virus email service upgrade. In February, the campus email service will begin to use ClamAV, a leading anti-virus program used at many universities. ClamAV is known for its ability to detect phishing attacks—those fraudulent attempts to trick people into disclosing account numbers and other personal information online. The ClamAV software will scan all email that passes through the campus email gateway. Initially, mail will be scanned by both ClamAV and Trend Micro's virus-scanning application. In house testing has confirmed that ClamAV will perform as well as Trend Micro, and by June, the Trend Micro service will be discontinued. Contact: Morna Mellor, Director, IET-Data Center, mwmellor@ucdavis.edu.

NEW SOFTWARE

Contact: Sarah Robertson, software license coordinator, srobertson@ucdavis.edu.

Mac OS 10.5 (Leopard). In response to Apple's October release of Mac OS 10.5, IET coordinated a campus-wide compatibility testing effort, similar to that coordinated last winter in preparation for Microsoft's release of Vista. With contributions from more than 70 volunteers from nearly 30 departments, testing of Leopard and Safari 3 was completed by November 30. The compatibility results for over 80 applications and online services commonly used on campus are posted on the UC Davis Macintosh Web site along with licensing, hardware compatibility, testing methodology, security, and other information. Additionally, in consultation with the campus technical community, IET developed recommendations for Leopard for the campus and officially began supporting Leopard in December. Presentations, including live demos, were provided for the Leopard server and client. See macintosh.ucdavis.edu.

GeoTrust SSL Certificates. A five-day Active Directory and Group Policy Training Lab was offered to the UC Davis technical community. The training occurred on campus in December with participants from various departments, schools, and colleges attending sessions provided by James Conrad of Moskowitz Inc. Moskowitz Inc. also provided two training sessions in August on Vista and Active Directory and Group Policy. Requests have been made for additional training on active directory and group policy and other topics.

Symantec (Veritas) Backup Software. The campus continues to work with UCOP and Symantec in an effort to move forward with a system-wide Symantec "Rewards" program. This program is similar to a frequent flyer program in that any Symantec product purchased by a UC client would contribute to an accumulated number of points that would set the Rewards discount level. This discount would be applied on top of the pre-existing UC Software Volume License Agreement (SVLA) discount. Through the Rewards program, UC Davis staff and faculty could purchase Symantec products, reference our Rewards agreement number, and receive a deeper discount. The UCOP legal team is reviewing the Rewards contract, and Symantec is working to collect data on the amount UC spent on Symantec products through various resellers in order to set the starting Rewards discount level.

For more technology news, see <http://technews.ucdavis.edu>