

UC DAVIS REPORT TO THE INFORMATION TECHNOLOGY LEADERSHIP COUNCIL
September 6-7, 2004

I. CAMPUSWIDE TECHNOLOGY HIGHLIGHTS

UC Davis IT Planning. Last year, through a campuswide consultative planning process, UC Davis identified 29 "IT" projects, prioritized them, and sorted them into three categories. One of those categories reflects those projects that the provost identified - after extensive consultation - as the highest priorities for central campus funding. The other two categories feature projects already underway and projects for future consideration (see <http://itstrategicplan.ucdavis.edu>).

This summer and fall, IET will visit again with each dean, vice chancellor, and vice provost to review the existing lists and to discuss updates since last year. Part of an annual process, these consultations have proved very helpful in enhancing communications between IET, the campus leadership, and various campus groups.

Below are some of the IT priorities for campus funding (see <http://itstrategicplan.ucdavis.edu> for a complete list):

Electronic Document Management. This project proposes to explore a coordinated campus strategy to meet various departments' document management needs. An executive-level oversight committee has been appointed. One product (OnBase) has already been implemented in Student Affairs' Enrollment Services, and has been selected by the Offices of the Chancellor and Provost. In addition, the Office of Administration has issued a Request for Information (RFI), and the College of Letters and Science has obtained funding for a document management solution.

Faculty Merit and Promotion: This project proposes to create faculty digital portfolios that can be used in support of the academic merit and promotion processes, as well as other processes. An implementation workgroup, reporting to Vice Provosts Bruno and Horwitz, has been formed (Melendy and Shelby, co-chairs). The project was discussed with campus computing advisory groups in 2003-04 (see deliberations and report at <http://ac4.ucdavis.edu>). A pilot project will be launched in September (see demo at <http://media.ucdavis.edu:8080/ramgen/IET/MyInfoVault.rm>).

Electronic Research Administration: This system will enable electronic submission, review, approval, and tracking of research grant proposals. An oversight committee and an implementation workgroup have been formed. The project was discussed with campus computing advisory groups in 2003-04 (see deliberations and report at <http://ac4.ucdavis.edu>). A proposal is expected in September.

Effort Reporting: UC Davis has entered into a collaborative partnership with the Office of the President and several other UC campuses. The goal of this project is to improve the current, paper-based effort reporting process. At UC Davis, this project is headed by the Office of Administration. Funding has been granted, and the project is underway.

New Information Technology Advisory Council. In June, the UC Davis Academic and Administrative Computing Coordinating Councils (AC4/AdC3) were officially merged into a single Campus Council for Information Technology (CCFIT). The new Council provides advice and recommendations to the Provost and to John Bruno on educational and information technology and its use at UC Davis in support of instruction, research, administration, and public service. Specifically, the Council coordinates the discussion and exploration of information technology ideas, issues, and activities. It also develops recommendations on campus IT proposals, and provides a forum for the wider campus community to stay informed about major information and educational technology developments at UC Davis.

II. MIDDLEWARE INITIATIVES AND SERVICES

Online Resetting of Passwords. A new password reset service was implemented on August 18. Anyone with a UC Davis computing account can now change their Kerberos password or reset a forgotten password via the Web. Account holders must first access the Web-based form with their Kerberos passwords and answer two or more questions from the list. Answers to these questions will be used later to verify their identity when they return to change or reset their passwords. Online Password Reset is now an integral part of the account set-up and password change processes. (See <http://computingaccounts.ucdavis.edu>.)

Form-based Log-in and Log-out Functions. With this project, another important layer of security will be added to the processes of logging into and out of secure campus Web sites. The goal of this form-based application is to provide an effective way to log out of a DistAuth-enabled Web application by avoiding the use of browser-

cached passwords. Technical testing is already underway. Roll-out of this new service is scheduled for Fall Quarter (see <http://middleware.ucdavis.edu>).

Development of Central Roles Database. The IET Middleware Team is developing a central database in which personnel roles as they relate to actual business processes and workflow are specified. A couple of projects are driving the development of this new service: a) the creation of a contact database (part of the MyNetwork Project) that should be available to campus units in December; b) the development of a consolidated view of the university's organization; and c) the request for a Web-based index of UC Davis faculty.

Active Directory Upgraded to Window 2003. Beginning July 1, the Microsoft Active Directory service maintained at the Data Center began operating a production forest using Windows 2003 software. The forest is accessed by campus departments when sharing computer resources and calendars using Microsoft Outlook and Exchange. Current production users have developed a migration plan to move from the Windows 2000 forest to the Windows 2003 forest. The Windows 2000 forest will be discontinued after the migration is complete, which is expected by the start of Fall. (See <http://windows.ucdavis.edu>.)

III. COMPUTER AND NETWORK SECURITY

Expanded Vulnerability Scanning. In preparation for the start of the new academic year, IET is updating and expanding the vulnerability scanning service that was implemented last Fall to address the RPC vulnerability. With these new measures, computers that connect to the campus network or secure Web-based applications will now be automatically scanned to determine whether they are susceptible to specific computer viruses or vulnerabilities, or whether they have already been infected. Computers found to be infected or vulnerable will be denied access to the network, thereby preventing further dissemination of potentially harmful viruses. Owners of those computers will also be provided information and instructions to correct the vulnerability or infection before they are permitted to access the campus network.

Filtering of Unsafe Email Attachments. On August 30, UC Davis started blocking unsafe file attachments from being transmitted through the campus email system. The list of file attachment types that the campus has decided to block is derived from Microsoft's list of "unsafe" file types, and it was reviewed by various campus groups, including senior campus administrators, technical staff, and faculty representatives. A Web page provides detailed information about this measure as well as the list of file extensions that are blocked, alternatives for transmitting the files, and a link to the campus directive announcing this measure (see http://security.ucdavis.edu/attach_restrict.cfm).

Secure Email Authentication. The campus is taking measures to prevent the transmission of clear text passwords through the campus email system. Over 3 million clear-text passwords are transmitted between on- and off-campus locations and the campus' central email servers every week. IET is working closely with the technical community to ensure that security settings on users' email program(s) are configured properly by the November deadline. Improperly configured settings will prevent a computer from sending or receiving email messages using a UC Davis account. (See http://security.ucdavis.edu/secure_email.cfm.)

Remedy Help Desk for Incident Response. In July, IET started using the Remedy Help Desk application for the incident response process. The system can automatically create work tickets from incoming email, a Web page, or an application screen. With this phase of the pilot, email messages regarding such incidents as spam, virus infections, generation of excessive network traffic, unauthorized network scanning, or other Acceptable Use Policy violations are automatically converted into Remedy trouble tickets. IET plans to use this new application in support of other services in the near future.

Security Initiatives for On-Campus Residents. Several computer security initiatives are being planned to assist new students scheduled to move into the dorms on campus in late September. First, all new residents will receive security awareness publications identifying common information security risks and explaining measures they should take to mitigate those risks. When attempting to connect to the residential computing network, students will receive a brief notification if their computers are found to be vulnerable or infected with a virus. Students will also be provided in-residence assistance with the re-activation process. For those computers requiring patches or security updates, on-site consultants will be available to install or apply the latest maintenance releases for operating systems and anti-virus programs. In addition, CDs of the Service Pack 2 for Windows XP will be distributed to those who need it. In addition, for the second year in a row, the latest edition

of Symantec AntiVirus software is available for free download to all students (<http://my.ucdavis.edu/software>). Symantec AntiVirus is also available to faculty and staff at a significant discount via MyUCDavis.

IV. TELECOMMUNICATIONS & NETWORKING HIGHLIGHTS

MyNetwork. This portal will provide a front end that unifies information residing in many other network management applications, and will provide campus access to network information based upon an enterprise-wide roles directory (part of the campus middleware initiatives). MyNetwork access will be governed by authorization levels related to a staff member's campus role (i.e., NOC personnel, campus network administrators, general population). The MyNetwork portal, when fully developed, will also provide enhancements to Pinnacle functionality on work order flow and resource management.

Firewall Pilot Project. On Sept. 13, IET and the Firewall Project Team will begin pilot testing of core network (CDF), building deployment (BDF, and independent (IDF) level firewalls. A feasibility analysis for deploying a campuswide BDF firewall solution has already been completed. Given that a full campus-wide BDF deployment seems cost prohibitive at this time, IET is pursuing a CDF-level firewall solution.

Campus- and Wide-area Networking. CENIC connections to UC Davis have been stable since their commissioning in January 2004. The connections that provide a redundant path via the UC Davis Medical Center have been stable, and the effort to stabilize the redundant HPR link via UCDMC continues. As part of a project to further enhance emergency preparedness, UCDMC is creating a second point of entry for network connections to the main campus and to CENIC. This partly entails relocation of one of the paths by which wide-area fiber enters the UCDMC campus. Completion is expected mid-fall.

Fiber Connectivity to Off-Campus Locations. A three-way agreement between UC Davis, the City of Davis, and Comcast (the local cable TV provider) will provide faster, more reliable connectivity to off-campus locations. The fiber infrastructure is now being installed. Through this new agreement, UC Davis gained use of a segment of City-owned duct and 24 strands of Comcast fiber, the City of Davis gained use of 6 strands of UC Davis fiber, and Comcast gained use of conduit across a corner of the campus.

Wireless Network Expansion. By the beginning of Fall Quarter, Communications Resources (CR) expects to double the number of campus wireless access points on its centralized authentication system to just over 100. CR continues to expand the campus wireless network through departmental partnerships with numerous campus facility managers. Future plans include an upgrade of the wireless network infrastructure to include a new authentication server, new management system, and a more secure login via 802.1x.

Re-allocation of Educational Frequencies. A campus lease agreement with Sprint Broadband of excess Instructional Technology Fixed Service (ITFS) capacity is expiring this fall, and Communications Resources is exploring other alternatives for use of this spectrum. Instructional Television Fixed Service (ITFS) is an educational service in which licensees make use of the spectrum to provide formal classroom instruction, distance learning, and videoconference capability to a wide variety of users. Recent FCC rule changes allow for the digitization of these frequencies for two-way communication, making them excellent for wide-area data system deployment. Sprint Broadband and other service providers have tested this technology for fixed wireless services to residential customers over the last several years. Sprint continues to be interested in working with UC Davis on a new ITFS contract.

V. EDUCATIONAL TECHNOLOGY HIGHLIGHTS

MyUCDavis Course Management Tools. The maintenance and development of the instructional components of the MyUCDavis Web portal was recently transitioned to Mediaworks. Support for course management tools will now be provided through a tiered support system involving Mediaworks specialists, IT Express Help Desk consultants, and the Educational Technology (ET) Student Partners (for one-on-one assistance). See <http://my.ucdavis.edu/project/gettingstarted.html> for more information on course management tools.

New Online College Prep Literature Course. An Advanced Placement literature course developed by a team of Mediaworks specialists will be offered for the first time in the fall, as part of the University of California College Prep (UCCP) Initiative program. Mediaworks also continues to develop the Advanced Placement Spanish language, which begins its second year this fall. (See article at <http://technews.ucdavis.edu/news2.cfm?id=762>.)

ET Partners Support to Departments. To broaden its support of faculty, ET Partners piloted a few special "partnerships" with departments during Spring 2004. In addition to the individual faculty partnerships the program routinely offers, pairs of students assisted faculty throughout three departments with their educational technology needs. This approach more than doubled the number of faculty who were able to meet one-to-one with a student technology advisor over the course of a single quarter. (See <http://etpartners.ucdavis.edu>.)

Large Computational Cluster Pilot. Classroom Technology Services (CTS) recently began a year-long test to use its 415 publicly accessible computers as a large computational cluster to assist UC Davis researchers. Working with staff from the Department of Computational Science and Engineering to create the cluster, CTS will provide an additional service where unused computers can run calculations. When the machine is not being used or a user is not actively logged onto the computer, the machine will run small programs to analyze a portion of research data.

Reduced Computer Room Print Quota. Starting this Fall, the number of free sheets each student is allowed to print in the computer rooms will be lowered from 200 to 100 free sheets per academic quarter. Students who print in excess of 100 sheets will be charged five cents per sheet beyond 100. Since print charging was introduced in Fall 2001, the number of print-outs has increased by 90 percent, almost doubling over the past three academic years. The policy will be reviewed at the end of the year to determine if further changes are necessary. (See <http://clm.ucdavis.edu/rooms/printing/>.)

VI. ADMINISTRATIVE COMPUTING HIGHLIGHTS

Employee History Reports. In January, the Employee History Reports, initially developed for Human Resources, were opened to the Customer Advisors who represent central offices, dean's offices and departments. Upon their approval, the HR History reports were opened to the campus and medical center departments in June. The departments can now easily review hire, separation, leave of absence and salary change transactions on departmental employees and replicate an employee's position history record from 2002 forward.

Work Study, Expense Transfer Reports. A new series of detail and summarized reports were developed to assist the Accounting and Financial Aid Offices in resolving Work Study account balance issues and for reporting to government agencies. Once the current beta test with the Financial Aid Office is completed, the detail Work Study expense report will also be opened to departments. Another series of reports were developed to aid Extramural Accounting in researching expense transfers affecting Contracts and Grants. A departmental version of this report will be released shortly so the individual departments and colleges can do similar research. Finally, a probation date audit report was developed for Human Resources and the Registrar's Office. This new report has now been released to departments.

Completion of Student ID Conversion. A major campus project replacing the old student ID numbers was completed this summer. All students (mostly seniors) whose primary ID number was their Social Security Number (SSN) were given a computer-generated student ID number. This completes the Campus ID project begun in 2000 to eliminate the use of SSNs as the primary ID in campus computing systems.

Banner enhancements. While no major upgrades are planned for this academic year, minor upgrades are still expected for the various Banner modules. The Financial Aid system is expecting a new release in August for the Summer regulatory requirements. In addition a Banner user training program is under development.

Planning for Banner 7. A planning workgroup has been formed to prepare a planning guide and research the major tasks involved in upgrading to version 7 of Banner due for release in December. The workgroup will gather input from the administrative Banner users to analyze the requirements, dependencies, and effort required for implementing this major release.