

UC DAVIS REPORT TO THE INFORMATION TECHNOLOGY LEADERSHIP COUNCIL
February - April 2004

I. MAJOR CAMPUSWIDE TECHNOLOGY HIGHLIGHTS

UC Davis IT Planning. After two rounds of campus review, a list of 29 proposed IT projects has been developed, discussed, and ranked by the Council of Deans and Vice Chancellors. In early April, a handful of those information technology projects were identified as priorities the campus should pursue during the next few years. Included in this short list of projects are the following:

Faculty Merit and Promotion: Headed by the Office of Academic Personnel, with support from IET, this project proposes to simplify the time-consuming, paper-based task of assembling and reviewing faculty merit and promotion portfolios. A project team, oversight committee and implementation workgroup have been formed. In April, after carefully considering this project's goals, anticipated benefits, and options under consideration, the campus' Academic and Administrative Computing Coordinating Councils (AC4/AdC3) recommended to the provost the pursuit of an online system as a high priority for the campus.

Electronic Research Administration: Headed by the Office of Research, with support from IET, this project proposes to improve the process of research proposal development, review, approval, submission and approval through the implementation of an online system. A project team, oversight committee and implementation workgroup have been formed, and a software package (InfoEd) has been selected. Demos and discussions with InfoEd are scheduled for early May. This is the second project that AC4/AdC3 members considered carefully this year, and have recommended be considered a high priority for the campus.

Document Management: Drawing on the successful implementation of the OnBase document management system in the Offices of the Registrar, Undergraduate Admissions, and Financial Aid, a number of campus departments have expressed interest in a similar system and set of functionalities. A team will soon be formed to explore the potential use of an enterprise document management system as a solution to document routing, review, approval and storage. Specific outcomes will include the development of an implementation strategy for the campus and a coordinated, cost-savings approach to the purchase and distribution of software licenses.

For more information about the campus' information technology planning activities, see <http://itstrategicplan.ucdavis.edu>.

New Phase for NBA Initiative. In March, the Implementation Workgroup and Steering Committee announced a new focus and organization for the NBA Initiative at UC Davis. Leveraging knowledge and experience garnered over the last few years, the initiative was re-crafted around a small team of experts who can help a larger number of campus departments plan and implement changes that support the full range of NBA principles. The NBA Office is now organized under the direction of the Associate Vice Chancellor for Business Services, in the Office of Administration. (See <http://nba.ucdavis.edu>.)

MyAdmissions. A major project involving many campus departments was unveiled this winter when the MyAdmissions site (<http://myadmissions.ucdavis.edu/>) was rolled out to undergraduate students applying for 2004-2005 admission to UC Davis. Through this site, applicants now have access to a secure online method to check the status of their applications and, if accepted, complete their Statement of Intent to Register (SIR), pay their deposit by credit card, create a limited UC Davis email account, view Financial Aid status, complete the Statement of Legal Residence, enroll in Summer Advising, access forms, view Housing arrangements, receive messages from campus units, and take a variety of other steps necessary to complete enrollment. Two weeks after the online account creation mechanism was rolled out, 15,397 applicants had created an account. By the end of March, applicants had accessed the system over 300,000 times. The MyAdmissions project was sponsored by Undergraduate Admissions & Outreach Services and supported by Student Affairs and Information and Educational Technology.

LDAP Upgrades. On March 15, IET upgraded the central LDAP service (<http://ldap.ucdavis.edu/>) to a more robust and reliable platform. Consisting of a pair of replicated, load-balanced servers, the new servers are fully populated from the Computing Accounts system, while at the same time honoring privacy settings therein. The directory now offers service-level accounts for campus services requiring access to account data.

II. COMPUTER AND NETWORK SECURITY

Free Norton AntiVirus Download for Students. In our ongoing efforts to help campus members secure their computers, a free download of the latest edition of Norton AntiVirus, including a subscription to the Live Update service, was made available to all students in March. A joint email memo from Judy Sakaki, Vice Chancellor for Student Affairs, and John Bruno, Vice Provost for Information and Educational Technology, announced the availability of the software, and included instructions, for PC and Mac users, on how to obtain and configure the software (see <http://vpiet.ucdavis.edu/antivirus.html>). NAV is already available to faculty and staff at a significant discount.

Expansion of RPC-Related Vulnerability Detection and Reporting. In January, Vice Provost Bruno formed a workgroup to prepare a high-level plan and resource requirements necessary to expand the existing RPC-related vulnerability detection and reporting tools into a proactive campus-wide tool for emerging critical vulnerabilities. The workgroup's findings indicate that it is feasible to expand the existing vulnerability scanning and reporting mechanism beyond Windows RPC vulnerabilities and that this expansion could be completed with moderate funding/resource augmentation. (See <http://security.ucdavis.edu/vulnscanrpt.pdf>.)

Existing methods (deployed last fall) to reduce the number of computers with vulnerable Windows RPC services or related worm infections include: a scan of the campus computing network for RPC vulnerabilities; vulnerability check for individual hosts upon web-based authentication; web redirection of vulnerable hosts to corrective resources; and a Web-based reporting mechanism identifying RPC vulnerable or exploited computers.

Recommendations for File and Disk Encryption. The campus workgroup formed last December to define the functions and requirements for a file and disk encryption system that could support academic, research and administrative needs recently submitted their findings and recommendations to Vice Provost Bruno. The workgroup focused on file and disk encryption as a means to protect sensitive data residing on unit desktop and laptop computers and portable storage media, such as flash drives and CD and DVD media. In their report, the workgroup members recommend the development of a campus policy discussing the appropriate use of encryption services while providing operational safeguards for both privacy and public records access. The report also specifies functional specifications for a campus file/disk encryption program (see http://security.ucdavis.edu/file_encryption_report.pdf).

Bids for Central Firewall Services. Of the four bids UC Davis has received for the central firewall RFP, two finalists were selected in early April and both were invited to present their proposed firewall designs. The RFP bid review committee will then evaluate the designs and pricing, and combine the resulting scores with the RFP bid scores to select a single finalist. The chosen vendor will participate in a pilot test in June. (For more information about firewall services and resources, see <http://security.ucdavis.edu/firewalls.cfm>.)

Remedy Help Desk Roll-out. In the first of several phases, the Remedy Help Desk application will roll out to the Incident Response Team in late spring. By providing an automated system to which problems can be reported and which in turn creates and routes trouble tickets to the appropriate help desk personnel in IET and other departments around campus, this application is expected to improve our ability to report, investigate, track and resolve security incidents. Subsequent project phases will provide enhanced help desk support for other critical campus applications and services.

File Sharing and Copyright Infringement Notifications. According to the campus Business Contracts and Analysis Office, the number of DMCA infringement "notifications" has continued to drop between October 2003 and February 2004. The unit, which has been receiving, coordinating and tracking the numbers of DMCA notifications for UC Davis since the law's enactment in 1998, reported an average of about 27 notifications each month since October 2003, most of which are movie and software related (the average for 10/02-02/03 was 32 per month; the peak was 96 in April 2003). This decrease is attributed in large part to the awareness campaign initiated last May to alert students, faculty and staff of the risks related to illegal file sharing.

Security Discussions and Training. In March, IET hosted Apple Computer representatives in the second in a series of monthly vendor discussions designed to educate the campus community about computer and network security. Nearly 60 faculty and staff attended the presentation, lunch and discussion. In addition, in May, IET will host a two-day security seminar with Microsoft representatives. Topics will include security patch

management, server security on Windows 2000 and Windows Server 2003, network and perimeter security, client security on Windows 2000 and Windows XP, application and data security, etc. (see <http://security.ucdavis.edu/training.cfm>).

Special Computer Security Edition of IT Times. In March, IET produced a special edition of its newsletter (the *IT Times*). This issue focused on IT security and was designed to offer a variety of practical tips and basic information on a number of security topics, including identity theft, firewalls, wireless, instant messaging, and data backups. This special issue met with great success (filling an obvious need for user-friendly security-related information) to the point that over 10,000 additional copies have been ordered (see the PDF of this issue at <http://ittimes.ucdavis.edu/pdf/ITtimes0304.pdf>).

III. EDUCATIONAL TECHNOLOGY HIGHLIGHTS

Image and Media Management Pilot. This Winter, an American Studies 21 course (Objects and Everyday Life) was the first group to use the Almagest multimedia teaching and learning tool that IET brought to UC Davis from Princeton University and installed last December. (See student projects at (<http://ams.ucdavis.edu/instructors/delapena/AMS21/>.) This useful tool has since become the focus of several Educational Technology (ET) Partners projects and is being considered by a number of departments, including Art History, Textiles and Clothing, Landscape Architecture, and Theater and Dance.

Interactive Audio, Video and Text Chat Tool. Work continues on the development of an interactive audio, video and text chat tool with interactive whiteboard capabilities. This tool is expected to be available to instructors in Fall 2004. An early version will be tested this spring with language and history courses.

Interactive MRI Safety Test. IET and the UC Davis Health System have developed an interactive animated game-format exercise to test/track employee knowledge of safety principles around the MRI (Magnetic Resonance Imaging) systems. This test has proven very popular, and is being adopted as a required training module for all employees at the UC Davis Health System.

Sakai Project. UC Davis recently partnered with over 20 universities (including Harvard, Yale, and several other UC campuses) to participate in the second phase of the Sakai Project. This project, which received seed funding by way of a \$2.4 million grant from the Mellon Foundation, proposes to develop and distribute a complete course management system that incorporates the best features of the participants' existing systems. IET is participating in the Sakai Educational Partners Program that was launched in February to facilitate technical collaboration, developer training, strategy briefings, and software sharing among universities (see <http://www.sakaiproject.org/>).

New Approach to Educational Technology Partnerships. Responses to the Educational Technology (ET) Partners call for faculty participation doubled for this spring quarter. This enthusiasm resulted in a new partnering approach: Rather than pairing a student technology advisor with a single faculty member for one quarter, ET Partners will now offer several departmental partnerships. This new approach is expected to assist multiple faculty members with similar needs and to acquaint more faculty with the use and benefits of the new Almagest teaching and learning tool (see above). See: <http://etpartners.ucdavis.edu/>.

Faster Network Connections in Computer Labs. IET has upgraded all network connections in the 14 campus computer rooms, open access labs, and media facilities to 100 megabits per second. The work began last summer, and now that it's completed, the upgrade will better accommodate the increasing need to access content-rich online materials.

IV. TELECOMMUNICATIONS HIGHLIGHTS

Telecommunications Master Plan RFIs. The evaluation committee reviewed the responses received for the UC Davis telecommunications master plan RFI and heard oral presentations on March 25. A finalist will be selected and negotiations will occur in April, with a contract expected to be issued in May. This analysis will result in a master plan that will guide telecommunications infrastructure capital improvement and replacement cycles over the next ten years, with the recognition that it should be re-evaluated every three years due to the rapid change in external trends and outside influences.

Campus- and Wide-area Networking Improvements. The UC Davis and Medical Center connections to the new CENIC backbone were completed, and the high-speed connections between the campus and Medical Center are now fully operational and carrying traffic. The Extended Long Haul Multiplexors that were initially installed have been removed and are being re-deployed into the National Lambda Rail network. The final efforts in the CENIC deployment involve moving Digital California traffic onto the CENIC backbone at the Sacramento POP, and optimizing CENIC traffic routing to provide maximum stability.

Flexible Route Selection and Five-digit Dialing. IET is implementing measures to reduce voice costs for campus constituents. In addition to five-digit dialing between campus users and Centrex locations, we are also implementing Flexible Route Selection (FRS) through SBC. Because of the large volume of campus calls, the campus generally has more favorable pricing compared to Centrex locations. FRS service allows the campus, at minimal cost, to route Centrex calls through the campus PBX when there is a cost savings for doing so. Those calls for which Centrex clients will not realize any cost savings by routing through the campus will be routed directly to their destination. We do not anticipate any additional capacity will be required to handle this increased traffic on the campus PBX.

First Access Grid™ Multicast Connection. On February 26, Dr. Marco Molinaro, Chief Education Officer for the UC Davis Center for Biophotonic Science and Technology, used a multicast [Access Grid™](#) connection from his personal computer to participate in the University of Texas Biophotonics Symposium. The Access Grid™ is an ensemble of resources including multimedia large-format displays, presentation and interactive environments, and interfaces to Grid middleware and to visualization environments. IET, in collaboration with key personnel at [Argonne National Laboratories](#) and [Internet 2](#), successfully assisted Dr. Molinaro in achieving full audio and video using the Access Grid™. This was the first known use of the Access Grid™ by a campus department since multicast was deployed in early February, and several faculty members have expressed interest in using the system for future events.

“MyNetwork”. The “MyNetwork” project represents the convergence of several sub-projects, including these two:

Data Network Information Migration Project: Supports the implementation this summer of Nagios, an open-source package that will provide network status pages and largely replace the current tool, HP Openview. This project will provide the Network Operations Center with the backend data necessary for the improved suite of network tools. One of the first priorities involves migrating data network information from a stand-alone system into the Pinnacle telemanagement system as well as capturing and tracking additional network information. Acquiring this new information, and reconciling discrepancies among existing information, may require a partial audit of network resources.

Online Work Order Application: Will greatly improve the current telecommunications work order process, which is very manual and paper-centric, touches many stand-alone systems, and is labor intensive. The new online application will make use of Pinnacle’s workflow engine to streamline and accelerate the work order process. The application will integrate with other systems (e.g., NAM maps based on location), and will provide simplified interfaces for work order data entry, robust searching capabilities, and management reports. This application sets the stage for making the work order process client-centric in the future, whereby clients would be able to submit requests and check order status online, and receive automatic notifications.

This report can be accessed on the Web at <http://itlc.ucdavis.edu/>. For more UC Davis technology highlights and to read the IET Report for February-April 2004, see <http://technews.ucdavis.edu/>.