Campus Steps Up Computer Network Security Measures

The Plan

These experts had much to consider when developing an effective plan. They knew that all the computers accessing campus computing resources were connected to a network—a community of computers connected together, through which users share files and utilize the same services. Unfortunately, one virus-infected computer participating as part of the network can infect all the other computers as well. Like a biological virus, a computer virus replicates itself and can spread from one computer to another when users exchange files. Each individual computer must be monitored and protected to keep the community of computer users safe.

The scan

Last fall, with these challenges in mind, the workgroup developed a system that scanned individual computer systems when users tried to access the campus network. Without accessing personal files, the scanner could tell whether an individual computer system was infected with a virus or was vulnerable to infection due to a lack of computer security maintenance. Computers that were vulnerable to infection or already infected were denied access to the MyUCDavis Web portal, UC Davis email (“Geckomail”), and other campus services; instead, they were redirected to instructional content—such as links to updates and patches for their operating system—to help users remove vulnerabilities. Scanning individual computer systems before they logged on to the network allowed the campus a front line of defense to keep computers with poor security from causing further problems.

The vulnerability scanning system proved so successful that Information and Educational Technology (IET) has been working this summer with campus technology experts to strengthen the campus’ defense against computer security threats. So what’s new? Beginning this fall, the campus will use a threat analysis service to anticipate critical security threats on the horizon and will take steps to defend against them before they become widespread. This means that we now have a proactive approach to maintaining the security of the campus network. Security Coordinator Bob Ono explains that “the previous scanning system was designed to respond to specific Windows vulnerability. While initially valuable, the usefulness of this scan has diminished over time. The new system permits the campus to respond to new vulnerabilities more easily, thus, as new security issues arise, we can quickly adjust the scanner to identify computers vulnerable to the new threat. In some cases, we will be able to perform these changes before the new threat damages a large number of computers.”

How it Will Effect You

Computer systems that are scanned for critical security vulnerabilities will receive one of three diagnoses:

- If your computer is already protected from the security threats, you will be logged on to the network as usual. You probably won’t even realize your computer has been scanned.
- If your computer has minor security glitches, you won’t be denied access to the network but you will see a warning page notifying you of the security risks and will be suggested that you repair the problems. You can then continue with your log on.
- If your computer is infected with a critical virus or is vulnerable to serious infection, you will be blocked from accessing the campus network. This is an unfortunate side effect of being infected; however, you will be provided with a link to information or detailed instructions that will help you fix your computer and regain access to the network.

Because there is a proposed campus policy requiring computers attached to the campus computing network to be free of critical security vulnerabilities, this is

Campus Council for Information Technology (CC-FIT) Makes Campus Debut

Caroline Bledsoe Leads Council Towards More Effective Communication

It’s a little-known fact that the Campus Council for Information Technology (CC-FIT) is headed by a soil microbiologist who spends a month every summer in a biological virus, a computer virus replicates itself and can spread from one computer to another when users exchange files. Each individual computer must be monitored and protected to keep the community of computer users safe.

History of the CC-FIT

CC-FIT is the newest incarnation of the Academic and Administrative Computing Councils (more commonly known as AC8 and AC3), two groups created in 1998 to advise the Provost and Executive Vice Chancellor on matters related to administrative and academic computing. As someone who has been involved with campus IT committees for over a decade, Bledsoe has watched CC-FIT slowly flower from the seed of combined meetings held on a trial basis throughout the 2003-04 academic year, the two groups decided last Spring to combine formally into one council, CC-FIT, and to adopt a new charge, “I think that’s a big accomplishment,” relates Bledsoe.

A Unique Role

CC-FIT is poised to play a unique and critical role on campus. By bringing together students, staff, faculty, deans, vice-provosts, and vice-chancellors in technology-focused discussions, Bledsoe expects the Council will foster ongoing dialogue and encourage the sharing of ideas and perspectives among groups not commonly seen at the same meeting table—groups such as ALCIT, the Graduate Student Association, Staff Assembly, the Academic Senate, the Academic Federation, and key campus administrative units. Dialogue between such entities is becoming increasingly

excellent, according to Bledsoe. In a large and diverse campus, coordination and communication between disparate groups can be very challenging. It would be easy for such projects to progress independently, with little or no communication about what’s being developed. But what one group is planning to do might turn out to have an impact on quite a different project, you know the ‘butterfly effect,’ says Bledsoe. “We’re trying to get that two-way communication going more efficiently, with the Council serving as a forum.”

“CC-FIT is poised to play a unique and critical role on campus. By bringing together students, staff, faculty, deans, vice-provosts, and vice-chancellors in technology-focused discussions, Bledsoe expects the Council will foster ongoing dialogue and encourage the sharing of ideas and perspectives among groups not commonly seen at the same meeting table—groups such as ALCIT, the Graduate Student Association, Staff Assembly, the Academic Senate, the Academic Federation, and key campus administrative units. Dialogue between such entities is becoming increasingly excellent, according to Bledsoe. In a large and diverse campus, coordination and communication between disparate groups can be very challenging. It would be easy for such projects to progress independently, with little or no communication about what’s being developed. But what one group is planning to do might turn out to have an impact on quite a different project, you know the ‘butterfly effect,’ says Bledsoe. “We’re trying to get that two-way communication going more efficiently, with the Council serving as a forum.”

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Illustration by Steve Oerding

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ET Partners Provide One-on-One Tech Assistance to Faculty and Departments

Jana Maria Rodriguez receives one-on-one assistance from student ET Partner Khanh Nguyen (below). The Textiles and Clothing database includes hundreds of images—like the one at right—that are downloadable to a variety of programs.

Personal Response System Revitalizes Class Participation

As you survey your educational technology needs at the beginning of this school year, you may find that you want to jazz up your lectures using multimedia resources, or that you need some assistance with Gradebook or Quizbuilder in MyUCDavis. Or, if you’re a department chair, you may want to tackle a large educational technology project in your department. Welcome to the Educational Technology Partners program, which pairs technology-savvy students with individual faculty members, departments, and MyUCDavis course management tools users.

ET Partners provide one-on-one assistance to individual faculty members for an entire quarter, work with whole departments until their proposed objectives are met and needs have been served, and provide ad hoc consultation to instructors who need in-depth assistance with MyUCDavis course management tools. Here’s a spotlight on folks who’ve been using ET Partners and the new services the program offers.

Jana Maria Rodriguez:
Learning New Software and Short Cuts

Jana Maria Rodriguez, professor of Women and Gender Studies, signed up for an ET Partner in Spring 2004. Her goal was both clear and challenging: she wanted to integrate images, video, and text from different media sources and find a way to catalog that information. Acting on the advice of her student ET Partner, Khanh Nguyen, Rodriguez purchased a new software program, Portfolio Extrinsics, that helped her organize mixed media. During their weekly one-to-two hour meetings, they worked together to learn the software, troubleshoot problems, review their progress, and discuss next steps.

In addition to integrating and cataloging media, Nguyen assisted Rodriguez with programs she was already using, like MyUCDavis, PowerPoint, and Eudora. Rodriguez would come across questions, or simply wonder if there were an easier, faster, or smoother way to do something. She jotted down those questions and discussed them with her ET Partner at their meetings. Nguyen also helped Rodriguez with technical tasks, like learning how to use her new scanner/fax machine and making PDF files from the scans. “All in all, the partnership went very smoothly,” comments Nguyen. “We had enough time to get everything done that we had planned!”

Textiles and Clothing Department:
Bringing Faculty and Images Up to Speed

Because they operate in an image-intensive field, staff and faculty in Textiles and Clothing needed to organize their use remote controls to direct their own lectures, VCRs, DVD players, and stereo systems. Now, that same infrared technology is being used to encourage student participation in the classroom. In the past, to get students to participate during a lecture, instructors might ask for a show of hands or a vocal response. The chatty students and know-it-alls were the first to answer, while other students remained quiet. It seemed impossible to get every student to voice her opinion. But with the recently developed Personal Response System, students use electronic “clickers” to voice their opinions. Instructors get responses to all their questions, and hardly anyone looks bored. This new approach to class participation was piloted on campus in Spring 2004. The trial run of the system revealed a few bugs that hindered its use, but those haven’t stopped either instructors or students from giving the Personal Response System a thumbs up.

How It Works

The EduCue Personal Response System is designed to encourage every student to participate in class by way of a handheld remote control or clicker. The instructor asks students a multiple-choice question; the students then decide their response, point their clickers at one of the small infrared boxes installed in the classroom, and click the button that corresponds to their answer choice. Software compiles the answers instantly, and a graph detailing student responses is projected onto the screen for the entire class to see.

Each student enrolled in a class using the response system purchases a clicker at the bookstore (prices range from $1-$30, depending on the vendor). Students then register their clickers at the vendor’s Web site or with the professor (different vendors have different requirements to control their student ID numbers will be recognized and recorded when they answer questions). Individual responses are not displayed to the class, but are recorded for the instructor’s use.

Enhancing the Learning Process

The Personal Response System has enriched the classroom experience for both instructors and students. The responses allow instructors to see if their students understand their lectures. “I can clarify things right away if they’re not getting the right answers to the multiple choice questions,” explains Astronomy 10 professor Lori Lubin. A second quick poll and she can confirm that everyone is on the right track, or identify whether more information is needed to clear up remaining uncertainties.

Several professors have used the system for informal surveys, while others have utilized it as a grading tool. Professor Lubin gives her students extra credit for participating in the question-and-answer sessions. Physics 9 professor David Webb uses the system to grade his students’ knowledge of assigned reading materials. Land, Air, and Water Resources professor Caroline Bleidoe primarily uses the system for informal polling.

For students, the response system “breaks up the lecture,” and keeps the instructor from talking the whole class period. “It keeps me awake most of the time,” says sophomore Guadalupe Reyes. “Sometimes I’m just waiting to click!” She adds, “I hope it’s used all over campus in the near future.” Some instructors speculate there has been a higher rate of attendance since they began using the system—and a definite increase in class participation.

Availability of the Response System on Campus

Although the Personal Response System is not yet ready for large-scale campus implementation, it has been met with acclaim by students and instructors. The Physics, Astronomy, and Political Science departments will use the system in a few Fall Quarter classes. Systems are installed in two classrooms in Roesler Hall, and one classroom in Olson Hall. Instructors interested in learning more about the pros and cons of using a Personal Response System in their classes should contact Tor Cross of the Teaching Resources Center at (530) 752-6505.
The days of having to use paper files or cards to search through multiple computer files to get employee history information are rapidly fading. Thanks to the collaborative efforts of several groups, campus departments can now quickly review online reports detailing the hire, separation, leave of absence, and salary changes of their employees. This new business tool saves significant amounts of time for both the central offices producing the reports and for staff who need to access the data found within them.

The online Employee History reports, initially developed for Human Resources by the Payroll/Personnel Decision Support team, were tested in January 2004 by representatives from the campus central offices, deans' offices, and departments. Following a period of review and refinement, the history reports were opened in June 2004 to all approved representatives on campus and at the UC Davis Medical Center.

The Way It Used to Be

In the past, department staff members had to rely upon their manually maintained paper files of record changes. Although some Employee History information was available online through the Personnel System (PPS), there was no simple way to reconstruct this data. Linda Damt, Project Manager for Payroll/Personnel Decision Support explains: "If a staff member or administrator was interested in learning the job history of a staff employee (e.g., dates, job titles, and amounts of merit increases), she would have to go through multiple files and screens and piece together the information on paper."

For Human Resources, the old process also required significant resources. To ensure that employees were compensated properly and that changes were handled according to policy, procedure and/or union contract, compiled history data for each employee was kept primarily on paper file cards (called "cardineers"). These cardineers then had to be verified and updated each time employee information was modified in the Payroll/Personnel System. As can be imagined, the sheer number of these modifications (called "Post Authorization Personnel System") could be overwhelming because the number of cardineers varied from campus to campus. The UC Davis campus medical center employees used a total of 243,000 online reports, many of which would previously have been printed.

Several UC campuses are now working together to share code for creating these useful reports. "We can collaborate because all the campuses use the same Payroll/Personnel System," relays Damt.

Faster, Easier, More Precise

The deal with the challenge Human Resources worked with the Payroll/Personnel System Decision Support team to develop a series of Employee History reports that allow both Human Resources and individual departments to easily access and verify this information online. Staff now no longer need to dig through marked-up report handouts or scroll through multiple screens to track down the exact information they needed. "Using these pre-formatted PPS reports, authorized staff can now pull up a vast selection of information on an-as-needed basis," says Kim Osmolosn, an Analyst with Human Resources in the Office of Administration.

Future Sees Increased Use of Online Reports

Several existing monthly reports detailing personnel actions and payroll expenses have been moved online. While comprehensive and accurate, these previously printed reports were often unwieldy (some approached 1000 pages) and required significant parsing time employee information was modified in the Payroll/Personnel System. As can be imagined, the sheer number

issues for Council discussions and reporting Council deliberations back to their constituents. Bledsoe will oversee the development of an annual report of Council activities that will be available from the CC-FIT Web site. "I want to close the loop on communication," says Bledsoe. "Communications should come in to the Council from various sources and go back out to the campus community so everyone can be informed and have a chance to participate."

The Council will analyze various technology proposals, issues, and projects starting with the first meeting in October. Part of the Council's thorough deliberation process includes gathering background information, raising questions with the project teams, researching answers, and collecting feedback from constituent groups. The Council then comes to a consensus and, depending on the nature of the issue, formulates a recommendation to the project sponsor or to Provost Hinshaw and John Bruno, Vice Provost for Information and Educational Technology.

Past and Present Discussion Topics

Last year the Council recommended that the Provost provide funding for two major projects—the online Faculty Merit and Promotion (FMP) project and the Electronic Research Administration (ERA) project. The FMP will create digital portfolios to support the merit and promotion processes as well as other faculty-related processes. The ERA will support the electronic development, submission, review, approval, and administration of faculty research grants. Last Spring, following the advice of the Council and other groups, the Provost allocated one-time funds to both projects, thereby allowing the teams to move forward with the first phase of their projects.

"We’ve shared code with UC San Francisco and UC Santa Cruz, and plan to assist UC Merced as it continues to develop."

These reports and many others are available to authorized users through MyUCDavis, on which she is an enthusiastic user of MyUCDavis, on which she posts syllabi and slides to class Web pages and gives her students immediate access to course materials.

In Spring Quarter, Bledsoe worked with a student Educational Technology (ET) Partner to learn how to use the audience response system in her classroom. She and her ET Partner also explored Almagest, the digital imaging system and online media management and presentation tool (see related story on page 2). Bledsoe used Almagest to place all 62 final projects for the Land, Air, and Water Resources Department. She’s an enthusiastic user of MyUCDavis, on which she posts syllabi and slides to class Web pages and gives her students immediate access to course materials.

Getting Involved

Campus members interested in CC-FIT discussions and activities can contact their staff, student, or faculty Council representative (see membership list at http://ccfit.ucdavis.edu) or email Bledsoe directly at csbledsoe@ucdavis.edu.
More 10-Minute Computer Stations in Olson and Meyer
To help meet increased demand for drop-in access to campus computer rooms, five stand-up, quick-access stations were added to Olson and one quick-access computer station was added to the Media Distribution Lab in Meyer. There are now 35 quick-access 10-minute computer stations available in the campus computer rooms.

Color Printing Now Available in The Meyer Media Lab
Responding to a long-term request, color printing is now available in the Meyer Media Lab at 1154 Meyer Hall. Campus users will be charged $1.50 per sheet. For location, equipment, and software information for the Meyer Media Lab, see http://clm.ucdavis.edu/rooms.

Recommended Minimum Computer Specifications Updated
The campus recently updated the recommended minimum computer configurations for 2004-2005. These recommendations provide specific details about how fast your computer should be, how much disk space you need, and other related specifications. If you are planning to purchase a new computer that will have a two-to-four year life cycle, the updated information at http://computerownership.ucdavis.edu can assist you.

Need Help with MyUCDavis? Contact IT Express!
IT Express now supports the course management tools in MyUCDavis, including Web-site Builder, Gradebook, and Quiz Builder. The Computing Help Desk is open 8 A.M. to 6 P.M., Monday through Friday for telephone (530-754-7654), email (ithelp@ucdavis.edu) and walk-in support (182 Shields Library); and 1 P.M. to 5 P.M. Saturday and Sunday for walk-in support only. The Teaching Resources Center (http://trc.ucdavis.edu) also provides instructors with training and assistance with MyUCDavis course management tools.

Get Connected With The 2004-2005 Internet Tools CD
The latest edition of the UC Davis Internet Tools CD provides an easy way to configure your connection to the Internet through UC Davis, as well as the most convenient way to get the programs you'll need to use that connection, including anti-virus, email, telnet, FTP, and Internet software. With the UC Davis Internet Tools CD, you can create a new account at home, automatically configure dial-up, DHCP, and RestNet Internet connections, and access an online manual that includes complete software tutorials. Best of all, the UC Davis Internet Tools is supported by IT Express, the central campus computing help desk. The CD is available at the UC Davis Bookstore Computer Shop for under $10. For more information, see http://itexpress.ucdavis.edu/online/.

Campus Computer Rooms Implement New Print Quota
The free print allowance in campus computer rooms is now 100 pages per quarter. Printing in excess of 100 sheets (200 pages front and back) per quarter will trigger a bill that will accrue at five cents per sheet. For more information on IET computer room policies, see http://clm.ucdavis.edu/rooms/printing/.

End Print Allowance

Full-time Banner Trainer Now Available
The campus has hired a full-time Banner trainer who has an extensive background in training and development. Lani Dancy, the new trainer, is teaching the ongoing Introduction to Banner Navigation and Queries class, as well as the newly developed Banner: Error-free Create-a-Person class. She is also developing curriculum for future classes including, SIBWeb: the Student’s Perspective, Banner Population Selection/Letter Generation, and Banner: Suspense-Record Handling. Banner users will be notified by email as these new classes become available. Additionally, Dancy will be working with core client and deans’ offices on business-process analyses to improve system efficiency and reduce the workload for all Banner users. She is available for either one-on-one or departmental training, and can be reached by telephone at 757-3278, or by email at lancy@ucdavis.edu.

The Introduction to Banner Navigation and Queries class is offered on a monthly basis (check http://itexpress.ucdavis.edu/calendar.shtml for the schedule). Registration for the Banner: Error-free Create-a-Person class is through the SEAPWP Web site (http://sdps.ucdavis.edu/browse.htm).

Student ID Numbers No Longer Social Security Numbers
In an effort to further protect student identities, the remaining students whose primary campus ID number had been their Social Security number were given a new computer-generated student ID number over the summer. The result of this effort is that Security Numbers are now being used as Student ID numbers on campus.

Hardware and Software Upgraded in Computer Rooms
As part of an ongoing effort to provide stable and reliable software, the operating systems in our student computer rooms have been upgraded to Mac OS X and Windows XP. IET-Classroom Technology Services also installed 170 new computers in five computer rooms. For more information about computer rooms, see http://clm.ucdavis.edu.

Faculty Technology Guide Web Site Revised
The Faculty Technology Guide Web site (http://ftg.ucdavis.edu) has been revised to include comprehensive tools for accessing the campus, a technology checklist for faculty new to campus, and an expanded FAQ.

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an effective and noninvasive step to help faculty and students keep their computers safe. Oneonta points out that “this vulnerability scanning system is evaluating operating system programs and configurations; the scanner does not inspect personal data files.”

Additional Security Announcements

New Self-Scan Web Site Available
The campus has provided a new Web site that allows you to scan your computer yourself (http://selfscan.ucdavis.edu). The self-scan checks your computer for all security vulnerabilities identified by the campus during the past six months. The site also provides information for checking for any vulnerabilities or infections you might have on your system.

Additional information about the computer vulnerability scanning service, including the Computer Vulnerability Scanning Policy, is available at http://security.ucdavis.edu/vulner.resources.cfm.

Stripping Email of Harmful Attachments
You’ve probably heard that you should be careful when opening email attachments because they could include viruses. This is good; however, you’ll need to be careful before you open an attachment. To assist you, the campus is putting up another layer of defense by blocking 34 dangerous file types (such as .exe and .pif) from entering your UC Davis email. These file types are rarely used for legitimate purposes and are often associated with sending out some of the most recent virus attacks, such as MyDoom, Klez, and Bagle.

In this new system, when somebody attempts to send you an email with a restricted file type attached, you’ll receive the email without the attachment. A replacement attachment will inform you that the original, unsafe attachment was removed and will list options available to you should you wish to retrieve the file. If you commonly share any of the file types blocked by UC Davis (see http://security.ucdavis.edu/attach_restrict.cfm for a complete list of restricted files), consider using Web-based file sharing (e.g. MySpace) or making use of removable media such as diskettes or CDs.

Forget Your Password? Reset it Online
The new online password reset feature allows those with a campus computing account to reset a forgotten Kerberos password from their computer using an automated Web-based process. This feature allows account holders to select two or more identity verification questions that will later be used to identify them when they return to change or reset their passwords. To set up this feature, account holders who know their Kerberos passwords should go to http://computingaccounts.ucdavis.edu and select “Change your password.” Those who have forgotten their passwords prior to setting up online password reset will need to take a photo ID to the IT Express Office in 182 Shields Library to obtain a new password before setting up this feature. For additional information, please see Online Password Reset FAQ (http://middleware.ucdavis.edu/onlinepasswordreset_faq.cfm).

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flourished.”

Now Available: Personal Help with MyUCDavis
Beginning this quarter, a few ET Partners will be available on an ad hoc basis for faculty who need help with the course management tools in MyUCDavis (Gradebook, Website Builder, and QuizBuilder). For quick questions about MyUCDavis course management tools, contact the IT Express Help Desk at (530) 754-4157 or ithelp@ucdavis.edu. The Help Desk will determine whether more in-depth assistance and a one-on-one consultation with an ET student partner would best suit your needs and, if so, will contact the program for you. The Teaching Resource Center will also be referring faculty to ET Partners for assistance.

To learn more about the ET Partners program or to apply for a Fall or Winter Quarter partnership, contact Chris Sautson at (530) 752-9945 or email jethelp@ucdavis.edu. Applications for Fall Quarter partnerships will be accepted through 5:00 p.m. Monday, October 4, 2004 or until all partnerships have been established. Winter Quarter 2005 applications will be accepted until Wednesday, December 1, 2004.

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