

## INFORMATION TECHNOLOGY SECURITY

### UC Davis virtual private network

**Description:** IET and the University and Law libraries have entered into a jointly-funded partnership to pilot a new virtual private network service to replace the existing library proxy server. The VPN will enable individuals to access UC Davis library resources, including licensed or restricted materials, securely from off campus, as if they were on campus (i.e., will eliminate the need for double logins). It will be integrated into the existing authentication architecture of the campus and will greatly reduce the burden on the user by not requiring any client-side configuration changes or multiple logins. The Web-based VPN will allow for greater compatibility across all operating systems and browsers to better support the wide-spread user population. Right now, for remote users and travelers, access to some licensed online materials is limited to systems assigned a campus IP address. The new service is expected to benefit faculty, students and staff. It should be available no later than Fall Quarter 2007. Following the pilot, the service will be expanded incrementally to allow remote access to other campus online resources.

**Action/recommendation:** CCFIT strongly supports the development of a campus VPN and commends IET and the Library on this important partnership. We agree that this new service will greatly improve off-campus access to critical UC Davis resources. We look forward to an update in fall 2007.

### Comments:

Library: The General Library and IET are working on a jointly funded project to test and install a web-based Virtual Private Network (VPN) to replace the existing library proxy server. The VPN will be integrated into the existing authentication architecture of the campus and will greatly reduce the burden on the user by not requiring any client-side configuration changes or multiple logins. The web-based VPN will allow for greater compatibility across all operating systems and browsers to better support the wide-spread user population. The new system should be available no later than Fall Quarter 2007.

IET: *The University Library, School of Law and IET are partnering to acquire and implement VPN services for access to online library resources. This service will be available for fall 2007 and will provide faculty and students with easier access to online reference material from remote locations throughout the world. In addition, the VPN solution will provide remote access to some online library resources that are currently unavailable through the existing Web proxy mechanism. Continued CCFIT support of the development and implementation of this VPN service recognizes the important contribution that this new service provides to research and teaching.*

*Student Affairs: Another key part of the campus computing puzzle is to provide modern library services. Secure VPN services represent key abilities for remote work capabilities to campus. Student Affairs is in support of these services to the extent that remote use of computing resources provides another dimension in enhancing student and professional life. The library service offerings are more complex to provide, but just as important as administrative business uses.*

*ANR: Being able to VPN to the library system for our off-campus users will be an important tool for many of our users. Library proxy servers have been helpful but have significant limitations. ANR has UCD employed academics in many locations across the state who cannot access UCD resources. This will be very helpful and we strongly support continued efforts to support VPN networking to UCD and UC services.*

*GSA: Many graduate students work from off-campus, and this project will assist them, and this should be pursued and publicized.*

### Encryption policy and software

**Description:** IET has taken two measures to encourage proper encryption of sensitive data throughout campus: development of a whole disk encryption policy, and distribution of encryption

software to campus departments. The policy was developed by a campuswide workgroup, was vetted with the Technology Infrastructure Forum (TIF) and the Senior Advisors Group before being officially adopted in late May. Funding for Pointsec encryption services is being provided through IET in support of the campus cyber-safety program.

**Action/recommendation:** CCFIT continues to support the protection of sensitive information and commends IET for making encryption software available to campus departments at no cost to them. CCFIT encourages campus staff and faculty to make use of this software and to secure sensitive information, wherever appropriate.

**Comments:**

*Student Affairs: As key stakeholders in student sensitive data, Student Affairs thinks this project is of highest priority and concurs with these recommendations. The weakest entry point in our campus data security is the level to which we are protected. Laptops are in our opinion that weakest link. Student data is at stake, and as stewards, we feel it is only reasonable that those who carry sensitive data take measures to protect it. This is the best way to do it. The resource implications fall under the category of the "price of doing business" and should be so treated. Our highest priority ranking applies to these measures.*

*IET: A campus policy requiring the use of whole disk encryption for securing electronic information on portable computing and storage media was recently adopted by UC Davis. In support of this new campus policy, IET will make Pointsec whole-disk encryption software available to campus units where electronic restricted information must reside on mobile devices. Continued CCFIT support of the protection of electronic restricted information encourages staff and faculty attention towards the alternatives to secure such information and the use of whole-disk encryption, where appropriate.*

*Senior Advisors: Campus incentives and/or mandates in the encryption area are really needed.*

### **Identity management**

**Description:** Last November, an identity management workgroup (co-chairs Mike Allred and Bob Ono) issued a report to guide establishment of an identity management system for the campus. The report is based on the study by the Burton Group, a research and advisory consulting service, conducted last year with thirty-five campus representatives. The primary goal of the identity management system will be to facilitate access to critical institutional data while protecting restricted information from unauthorized access. Ono provided CCFIT with an overview of the key components of what is expected to be a multi-phase, multi-year process.

**Action/recommendation:** CCFIT strongly supports development of a campus-wide identity management system that is a priority for many campus units. CCFIT encourages the Identity Management Workgroup to consult broadly as plans develop and a proposed architecture is drafted.

**Comments:**

*Student Affairs: While the need for this important project is indisputable, Student Affairs is still trying to decide if the current approach is going to produce the intended results. An informal poll of other large, land grant institutions indicates most have embarked upon projects like this which accomplish similar goals. Student Affairs asks whether \$4.5M and 7.0 FTE will indeed produce the desired results in a 4 year timeframe, and whether by then the marketplace will have already solved the problem. Student Affairs concurs with the consultants' findings that the need is indeed present, but hopes that this resource impact will not bleed over into other highly needed projects like the alignment of the SIS and its required enhancements to improve the use of full automation. For security reasons, we understand the importance of the project as well. A simple reading of Gartner information on this hot topic shows there is a tremendous amount of interest in it. Manual provisioning and double checks by line management might become relied upon by the campus while the marketplace is rushing to solve the very same problems, potentially causing us to re-invent the wheel locally. It is our opinion that this project needs serious "fleshing out" before it becomes a viable*

*project for scheduling.*

*ANR: UC-wide identity management and authentication is a strategic priority for ANR and we strongly encourage the continued participation and leadership demonstrated by UCD IET. While the vast majority of ANR academics and staff are UCD employees, we have users of our systems who come from different campuses and from off-campus locations served by heterogenous network infrastructure. We could use distauth to authenticate UCDavis users, and we assume some incarnation of distauth will flow into the new identity management, but we also have UC Berkeley, UCOP and UC Riverside employees, housed at off-campus locations, that we need to authenticate and, in some instances, authorize for access to ANR and UCD systems. Most of these users come to internal ANR administrative applications and programmatic web sites directly. We are working to determine how we can authenticate users from different campuses and tie into the identity management system to build trust relationships and controls with UCD and other applications. In a widely distributed organization like ANR, standards-based identity management and authorization are even more critical elements of our IT security implementation and we support UCD's efforts and UC Trust enthusiastically.*

*IET: Continued CCFIT support of the development of a campus identity management system recognizes the campus need for and priority of managing digital identities. Through improved management of digital identities, access to automated systems will be easier for users and application and data usability and security will be enhanced. The beneficiaries of these improvements will be faculty, staff, students, library patrons, research partners, affiliates and guests. A campus identity management project will improve data integration, user provisioning and authentication and authorization measures. The development of an identity management system is a major project and will span multiple phases and years and require new investment.*

*Senior Advisors: Critical issue for the campus.*

*Graduate Studies: This is a valuable project.*