

UC Information Technology Leadership Council UC Berkeley Report May 2008

(Updated 05/27/2008)

February 2008 – May 2008 Office of the CIO and Information Services and Technology (IST) Accomplishments

Enhancements to Security Software

The IST Security group has upgraded or released software to support several services. The system used to block and unblock AirBears users has been upgraded to consolidate information from several systems that control access to campus resources such as AirBears, modems, and the campus VPN. This upgrade should help us respond to customer inquiries related to blocked/unblocked status.

System and Network Security (SNS) has released the Aggressive IP Distribution (AID) system. The Aggressive IP Distribution list is a list of IP addresses that SNS has determined are aggressively attacking campus hosts in an attempt to exploit known security weaknesses. The data for this list is taken from both campus-run intrusion detection systems (IDS) and various systems on campus. More details may be found in the following Knowledge Base article: <https://kb.berkeley.edu/jivekb/entry!default.jspx?categoryID=48&externalID=2385>.

In Berkeley's January 2008 ITLC report, the planned release of the AppScan application vulnerability assessment software was mentioned. This software has been installed and we are in the process of scanning key campus applications, looking for security holes that can be exploited to extract information or take control of campus systems. More information about this service may be found in the following iNews article: <http://istpub.berkeley.edu:4201/bcc/Spring2008/1180.html>.

Project Manager: Michael Green, mhgreen@berkeley.edu

Database and Application Upgrades

To maintain security and take advantage of new functionality, we are upgrading several database platforms. The payroll system has been upgraded to DB2 version 9. Student, CARS and the Financial Aid Office DB2 databases will also be upgraded to version 9 by the end of May. More than 80 percent of the production applications hosted on Oracle databases have now been upgraded to Oracle 10g, and those remaining have target dates for upgrade. The SQL Server upgrade project was kicked off in April, and 35 percent of the applications in production have already been upgraded to SQL Server 2005. MySQL and PostgreSQL are planned for upgrades in fall 2008.

We are also upgrading several applications. The ProSAM project (financial aid management system) was kicked off in March, and the new development environment is installed. The HRMS upgrade project is proceeding on track to make its fall 2008 target.

The BAIRS Hyperion System 9 upgrade is scheduled to roll out in the May/June timeframe, prior to the beginning of the fiscal year-end reporting and analysis demands. This upgrade replaces the existing Hyperion 8.2 software, providing additional functionality to the campus customers and zero-client for Macintosh users. This will ensure continued software support from the vendor, and provide reporting software that supports the Internet Explorer 6+ and Firefox browsers and the Vista operating system. Hyperion 9 will run concurrently with Hyperion 8.2 throughout the fiscal close period so campus staff can complete their fiscal year-end duties in the older, more familiar system while receiving training in the new system.

Technical Contacts:

DB2: Roy Reynolds, royr@berkeley.edu
Oracle Ken Marrs, kmarrs@berkeley.edu
SQL Server: Paul Rivers, privers@berkeley.edu
IST ProSAM: Nancy Fan, spgnjf@berkeley.edu
Hyperion: Peter Cava, pcava@berkeley.edu

Project Manager: Karen Kato, kkato@berkeley.edu:

Digitizing Reports — PageCenter

PageCenter is a report management system that allows for the viewing, printing, indexing, and short-term and long-term archiving and retrieval of printed output. The system provides full control over document retention periods and storage. The Production Control group collaborated with the Office of the Registrar to convert the production of microfiche print tapes, which is a film containing a micro-reproduction of report documents for storage, reading, and printing, to this new print solution. In addition to the cost savings to IST by eliminating its annual service contract with the microfiche print service Anacomp, the advantages of PageCenter over microfiche print are that PageCenter

- allows for quicker access to reports,
- creates a report audit trail, and
- eliminates the need for storage.

The success of this project paved the way for IST's upcoming budget reduction project to reduce the campus's document print costs. Using PageCenter would drastically reduce wasted paper by eliminating hard copy reports.

Technical Contact: Allen Lee, aolee@berkeley.edu
Project Manager: Claudia Bayless, claudiab@berkeley.edu

Media Vault Proof-Of-Concept Project

The Media Vault Proof-of-Concept project reached successful conclusion with the submission of a proposal to the Campus Technology Council on behalf of the participants. The proposal was written as a community document over several weeks, with input and authorship from virtually all partners, based on the efforts and experiences of project participants over several months. Letters of support for the Media Vault Program (MVP) were received from across the campus and beyond, including the Bancroft Library, the Digital Nineveh Archives project in Durham University, History of Art faculty, and the Dean of Arts and Humanities. All told, thirteen partners contributed content, time, and energy to the project. During the seven months of the proof-of-

concept (POC), more than 500,000 digital assets were submitted and managed by the MVP, and thousands of hours of participant effort were involved. As we move forward from POC to a pilot program, we hope to extend invitations to new participants to join the MVP community.

Technical Contact: Michael Ashley, mashley@berkeley.edu

Campus Collaborative Tools Strategy

The Collaboration Services unit in IST–Data Services is completing the development of a strategic plan to help the campus better support collaboration through the use of technology. This strategy provides an overview of the current environment of collaborative practice, the tools in use on campus, and the options and industry trends in this area. It then identifies common needs that span multiple collaborative practices and makes recommendations for how the campus can best meet these needs.

These recommendations include foundational steps such as:

- Implement identity management enhancements, such as making it easier for non-UC Berkeley participants to obtain accounts to work with their campus counterparts within the same collaborative spaces.
- Facilitate sourcing services from multiple providers, including providers of consumer-focused tools (e.g., Flickr), by tackling constraints related to law, policy, contracts, and funding models.
- Expose institutional data for collaborative uses, by rationalizing data governance and providing standard interfaces to that data.

This strategy is primarily based on the many interviews, surveys, and focus groups that have been conducted over the past eight months with individuals and organizations across the UC Berkeley campus; but also owes credit to the many articles, discussions, and projects that have preceded this work.

For more information, see <http://collab.berkeley.edu/projects/cctsd/>.

Project Manager: Ian Crew, icrew@berkeley.edu

IST Service and Solutions Catalog

The Technical Account Management (TAM) group worked closely with the OCIO Communications team to upgrade the former IST Service Catalog to the new and improved IST Services and Solutions Catalog (<http://ist.berkeley.edu/services/>). The TAM re-architected the catalog information following user-centered design principles, and fine-tuned the system after several usability testing sessions.

The Services and Solutions Catalog is managed using the Drupal content management system (CMS), the open-source CMS to which the main IST website migrated this year. The TAM is the first group in the UC Berkeley IST organization to take full advantage of this CMS, the benefits of which are easy maintenance, current content, and a consistent look and feel for all new content entered.

The TAM will continue to maintain the Services and Solutions Catalog as site administrators and editorial partners. IST service providers will provide new and updated content as required. This model will allow IST to support a dynamic environment and give the TAM the ability to maintain consistent customer-centric messaging.

Project Sponsor: Susan Tobes, stobes@berkeley.edu
Project Manager: Nina Hundley, ninahundley@berkeley.edu
Site Editor: Tanya Jansen, tanyalj@berkeley.edu

Physics Website Upgrade

The Department of Physics at Berkeley has long been in the forefront of discovery and achievement, and the department's website serves as a gateway to extensive information for students, faculty members, researchers, alumni, and the general public. The site contains hundreds of webcasts of public lectures, seminars, and events; information about courses, faculty members, and research; schedules of classes; and alumni support information. The website was developed a few years ago using the Mambo open-source content management system by a campus department that no longer exists. While security patches and major upgrades were being released for the Mambo CMS software, due to a lack of support on campus, the physics department website had not been upgraded since its original release date.

In October 2007, the Web Applications group accepted the project to upgrade the physics website as part of the CalWeb-in-a-Box (CWIAB) service. Because of the size of the website (12 GB) and the hosting arrangements, it was not a good match for the CWIAB service. In addition, system administrators wanted to take this opportunity to upgrade the OS, database, PHP, and Apache software. The file system also had to be cleaned since Mambo CMS was installed on top of an older version of the physics website.

Upgrading involved moving the site from Mambo CMS to Joomla; upgrading all third-party modules installed on the site such as WYSIWYGPro editor, SWMenuPro, and Facilforms; upgrading three custom-built modules that facilitate administration of the people, events, news, and reports parts of the website; and upgrading the CalNet authentication module. There were major compatibility issues with PHP 5 and custom-built modules. Consequently, almost 50 percent of the code was rewritten to address these issues. While working on the project, the Joomla Foundation released two security updates that were applied as well.

The site is now running on Joomla 1.0.15. Future upgrades might include upgrading to Joomla 1.5, converting to CAS authentication, and adding CAPTCHA to eliminate spam emails.

Technical Contact: Vahid Nadi, vnadi@berkeley.edu
Project Manager: Bill Allison, wallison@berkeley.edu

Bamboo Project Awarded \$1.4 Million Planning Grant by the Andrew W. Mellon Foundation to Lead Community-Design of Cyberinfrastructure for the Arts and Humanities

The University of California, Berkeley and the University of Chicago were jointly awarded a \$1.4M grant from the Andrew W. Mellon Foundation to carry out an 18-month planning project to develop a cyberinfrastructure for the arts, humanities, and interpretive social sciences.

Bamboo is a multi-institutional and interdisciplinary effort to bring together researchers in arts and humanities, computer and information scientists, librarians, and campus information technologists to collectively tackle the question: How can we advance arts and humanities research through the development of shared technology services?

The Bamboo Planning Program will carry out an 18-month planning and community design initiative. Through a series of conversations and workshops, Bamboo will map out scholarly practices and technology challenges and needs across the humanities disciplines in order to discover where a coordinated, cross-disciplinary technology development effort can best foster academic innovation. At the end of the planning period, it is the intention of the program team to submit a Bamboo implementation proposal in partnership with a range of other institutions and organizations. So far, more than 80 universities and other organizations concerned with the humanities have signed on to participate in the Bamboo planning process. The UC entities participating in Bamboo are UC California Digital Library, UC Humanities Research Institute, UC Press, UC Berkeley, UCLA, UC Santa Cruz, UC Irvine, and UC San Diego.

Bamboo is co-led by Janet Broughton, Dean of Arts and Humanities and Professor of Philosophy at UC Berkeley, and Gregory A. Jackson, Vice President for Information Technology and Chief Information Officer at the University of Chicago; it is co-directed by David Greenbaum, Director of IST–Data Services at UC Berkeley, and Chad Kainz, Senior Director for Academic Technologies, Networking Services and Information Technologies at the University of Chicago. The Bamboo Program Manager is Rich Meyer. For more information, see <http://projectbamboo.org/>.

Program Co-Director: David Greenbaum, dag@berkeley.edu
Program Manager: Rich Meyer, rtmeyer@berkeley.edu
Architect: Steve Masover, masover@berkeley.edu

Evolution of the Campus IT Funding Process

The FY 2008–09 IT Funding Request (ITFR) process marked the second year for this activity-based budgeting approach, which is an integrated part of the annual campus budget process. In the ITFR process, requests are evaluated and prioritized by the Campus Technology Council (CTC, <http://technology.berkeley.edu/planning/ctc/>) and the Chief Information Officer (CIO). The CTC's annual review of IT funding requests allows for discussion, with broad campus input represented by the Associate CIOs, about which investments can have the greatest impact on the campus as a whole. Over time, this process will provide a comprehensive view of campus IT needs and facilitate strategic IT investment and portfolio tracking.

A number of improvements were made to the process this year. Based on feedback from last year's process, the criteria used by the CTC to evaluate IT funding requests were revised to improve clarity (see <http://technology.berkeley.edu/planning/it-budget/>). Also this year, in order to facilitate the evaluation process and to promote sound project planning and management, additional information such as a basic work plan, a description of the core technologies to be used, and an assessment plan, was requested. This additional information was evaluated by the following groups, and the results were provided to the CTC for their use during their own review process.

- **The Information Technology Architecture Committee (ITAC,** <http://technology.berkeley.edu/architecture/itac/>) reviewed the alignment of a request's core technology with campus IT architectural directions.
- **The Technology Program Office (TPO,** <http://technology.berkeley.edu/cio/tpo/>) evaluated the viability of a request from a project management perspective.
- **Financial Planning and Technology Investment Services (FPTIS,** <http://technology.berkeley.edu/cio/fptis/>) evaluated a request's funding model.

The general outcome of this year's ITFR process also demonstrates significant improvements over the inaugural ITFR process last year. The process has gained visibility and understanding on campus, and the quality of the 24 funding requests received were markedly improved, with far greater consideration of architectural alignment and technology lifecycle planning, as well as increased matching unit contributions that totaled \$13M. While funding decisions of the FY 2008–09 process have not been finalized, and will depend in part on the outcome of the state budget situation, CIO Waggener has requested that \$5.6M be allocated to the IT Bank to provide funding for thirteen proposals including two planning grants.

Technical Contact: Liz Marsh, lizm@berkeley.edu
Project Managers: Susan McKeehan, susanmck@berkeley.edu
Teresa Costantinidis, teresac@berkeley.edu