2000 UCSB IT Update for UCCSC

University of California Computing Services Conference, UC Davis, July 21, 2000

Report Highlights

- Campus-Wide IT
- Academic & Research Computing
- Instructional Computing
- Administrative Computing
- Student Affairs Computing

Campus-Wide IT

1. **Office of Information Technology**
2. **Information Technology Board**
3. **Information Technology Planning Group**
4. **Communications Services**
   
   Vince Sefcik, Communications Services
   
   1. Student Residence Wiring Projects

   There are currently about 4,400 Ethernet outlets in the six on-campus Residence Halls and three off-campus apartment buildings. This summer we are replacing approximately 500 cable television outlets in the final two campus apartment complexes (West Campus and Storke Campus) and providing Cable Modems with Ethernet ports to residents to connect their computers to the campus backbone network. After this work is complete, every University owned residential housing unit will have an Ethernet "port per pillow."

2. **Replacement of Public Dial-in Modems**

   This summer we are replacing all of the publically available dial-in modems (128 modems) with V.90-compatible equipment. Due to our Senior Officers' decision several years ago to not continue funding augmentations to our dial-in modem pools, the vast majority of faculty, staff and students use local Internet Service Providers for access to the Internet and the campus backbone. Our public dial-in modems pools have not been saturated for over two years, and we have no plans to add additional modems.

**Academic and Research Computing**
1. **Departmental Shadow Accounting System (GUS)**  
   Shanna Bowers, Marine Science Institute; Joy Williams, Department of Chemistry

   The Marine Science Institute and Department of Chemistry are jointly developing GUS, a departmental shadow accounting system. It is intended to both substantially ease departmental accounting workloads and to increase the quality of service we provide to our Chairpersons, Directors, MSOs, and Principal Investigators.

   The Budget Management component has now been in use for more than a year. The Personnel and Purchasing components are under development with release expected in the near future. Anticipated future components include web access by Principal Investigators for current budget and order placement/tracking and a direct connection with the UCSB campus Data Warehouse.

   GUS runs on Macintosh and Windows platforms in both stand-alone and client-server configurations.

   GUS is currently in use at 13 UCSB departments and ORUs.

2. **Inexpensive Terabytes and Inexpensive Supercomputers**  
   Dr. James Frew, Donald Bren School of Environmental Science and Management

   As part of Dr. James Frew's NASA research project, the Earth System Science Workbench (ESSW), we are developing multi-terabyte storage systems at $15,000 a terabyte. We are also utilizing personal computers for multi-node/beowulf style cluster computing for efficient low cost supercomputing.

   The Earth System Science Workbench (ESSW) is a suite of technologies and procedures designed to help existing and future NASA Earth Science Information Partners (ESIPs) bridge the separation between computing environments for earth science research and computing environments for providing earth science information to others. Research computing is often heterogeneous, distributed, and idiosyncratic. Conversely, standardized and robust computing environments are necessary for distributing earth science products to the outside world. ESSW services are designed to require minimal additional support, at scales ranging from single desktop systems through large multi-site teams.

**Instructional Computing**

1. **Off-Campus Studies**  
   Howard Adamson, Off-Campus Studies

   Off Campus Studies began on-demand Internet videostreaming of all classes for its graduate programs in Computer Science and Electrical and Computer
Engineering. The server being employed is a dual processor Pentium machine running RealNetworks server and the Realproducer production package. Access to the content is either directly through the player or by links from the course page hosted by OCS. The latter causes a web page to be displayed in the client browser with a Realplayer plug-in launched. Student feedback was overwhelmingly positive with several students in the OCS program opting for streamed delivery over the traditionally supplied video tapes. The server archived all classes presented each quarter on a quarterly rotation basis. A departmental summer project is to add live video streaming of courses in the fall utilizing a fiber-optic link from the principal video distribution center on campus to the UCSB-owned facility housing Extension and OCS approximately 1.5 miles away (location of the server).

Additionally, the server has added WebCT the first course in a series leading to the Certified Network Specialist certificate through Extension is under development for a fall debut. The course will consist of video streamed lectures in the course Introduction to Data Communications (I am the ham er instructor) laid over extensive lecture notes in WebCT. Distance learning students will be assigned to specific chat rooms for discussion of the material. Grading will be by two on-line examinations and participation in the discussions. Electronic on-line office hours will be combined with e-mail for instructor contact purposes. A second summer project is the addition of a video return line to the UCSB Ventura Center for the OCS televised distance learning program at that facility. This system will augment the current audio return line in UCSB video origination classrooms that have Internet connectivity in place. Tests of wireless LAN equipment are planned for those rooms that currently are not so equipped but have connectivity nearby with the goal being total replacement of the present audio only return line arrangement. This project is intended as groundwork for a new satellite campus Northern Santa Barbara County that will combine live instruction on-site with Internet videoconferencing delivery of courses originating at UCSB and at the UCSB Ventura Center.

2. **Student E-Mail and Web Service**
Matthew Dunham, Instructional Computing

U-Mail is ticking along as UCSB's largest e-mail service, maintaining a steady-state user base at somewhere around 20,000 accounts. Currently 90% of our student population has activated their U-Mail account, up 10% from this time last year. We're not gonna beat out hotmail, but we're staying competitive....

After a full year of service with our "pilot" web-based e-mail client we're looking at replacing it with a full-featured commercial webmail solution. CMGI/Nascent Mailspinner is currently topping our list of candidates.

Last fall we rolled out a web-based file storage system along the lines of I-Drive and the other internet storage systems. The system was written in-house to
integrate with our existing web-based account management system. We offer a 10 MB quota which is shared with account home directory. Usage has been surprisingly high, especially amongst the grad student population.

We hope to go beta this fall with our course-based mailing list system, with full production planned for Winter 2001. Initially our lists will be restricted to posting by the individual instructors only. Based on the usage and success of this project we hope to expand this service to include lists for groups of majors, minors, and class levels.

3. **Instructional Computing**  
Bill Koseluk, Instructional Computing

Instructional Computing completed several facility upgrades this year, including a new language computing facility for all the foreign languages, a joint project with the College of Letters & Science, Instructional Computing and Instructional Resources. We also upgraded our "Advanced Technology Center" in keeping with the facility charter of always having the most recent systems in place. A new Apple G4 lab was installed for general use in Phelps Hall, and finally, we installed a new "Hi-tech conference room, a facility with 9 computing systems, all sharing overhead video, easily switchable and controllable by the main system. Room also features video, DVD and an excellent sound system.

I.C. also continues to provide a full sleight of training courses for faculty and staff. This summer, with the College of Letters & Science, we are offering a series on developing web materials for the classroom, a beginning attempt to empower faculty in the development process.

**Administrative Computing**

1. **UNIX & Office Systems**  
Jamie Sonsini, Information Systems & Computing  
A. Thin Client Pilot Project - Experimenting with MS Terminal Server.  
B. Development of the campus production LDAP directory (11,000 entries) and, associated, Public LDAP directory (very soon to be in production).  
C. Installation of the Proxy Server for the Library - still in test mode  
D. Experiments with wireless data communication and the Wireless Scouting Party.  
E. Continued expansion of CorporateTime use on campus.

2. **Housing & Residential Services**  
George Gregg, Housing & Residential Services

Housing & Residential Services has completed the project to allow Graduate, Continuing, and Transfer students to apply for student housing via the web. We are also in the process of installing a rental property software package to allow faculty and community housing rentals be available on the internet.
Cable modems are being installed at the HR&S Family Housing Apartments as part of the ResNet connectivity to the Internet.

IS staff have started the project to upgrade to Windows 2000 servers and Windows 2000 Pro workstations.

**Student Affairs Computing**

1. **Counseling and Career Services**  
   Don Lubach, Counseling & Career Services

   Counseling and Career Services in the Division of Student Affairs opened two computer labs in the Fall. The Career Exploration Lab has received national attention for its innovative use of color and architecture to group computers and print resources into six "Holland Career Themes." The Career Theory of John Holland was used to organize all print, database, and Internet materials. Students select an "iMac" that serves as a portal to the career theme that most closely matches their current interests. Testing and advising are available so that students may discover their career interests and then make the best use of the resources.

   A separate, Career Employment Lab was one of the busiest places on campus with students uploading resumes, competing for interview spots, and visiting corporate and organizational web sites in search of a perfect, first career position.

   [Career Services Home Page](#)