



2007 Year in Review

Information Technology Services

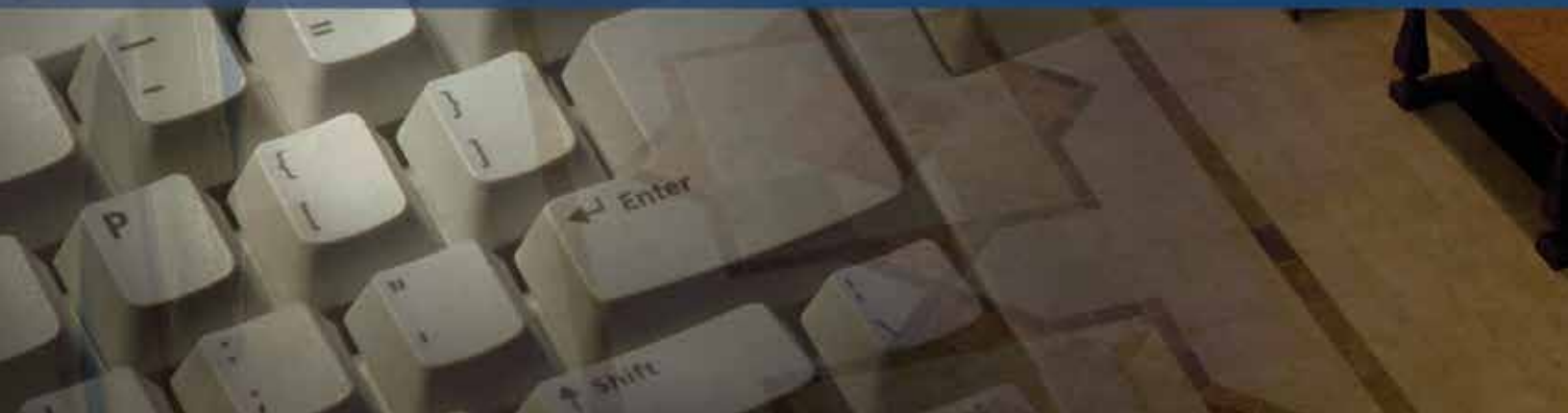




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2007 ITS Year in Review

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Welcome

from the CIO



The importance of information technology is never more evident than in a crisis. The 2007 wildfires in San Diego tested our capacity to communicate with the university community. Our efforts proved to be both resilient and effective.

During the fires, through collaboration with the offices of Public Safety, Public Affairs and Information Technology Services (ITS), critical information was provided to students, faculty, staff, parents and the general community using several technologies. The university's emergency notification system provided text messages, phone calls and e-mail messages. In addition, the USD Web site was modified to furnish critical updates. Mass e-mail messages from university leaders helped to reassure the community that the university was responding rapidly to the evolving situation.

That USD is able to execute such a mass communications plan is a reflection of the improvements ITS has made to the underlying technology infrastructure. However, technology at USD is still in transition and ITS is embarking on a number of major projects that will lead to more stability and improved services for faculty, students and staff. The fundamental objective of ITS is to provide tools and technology that are ubiquitous and reliable.

The paramount charge to ITS is to support and enhance USD's core mission of teaching, learning and research. The organization has broad-ranging responsibilities including telecommunications, networking, Internet and television services, wireless networking and computing, desktop and laptop support, academic and instructional technology, public computing labs, administrative systems and applications, central server systems and support, IT security, and technology policy.

My basic goal has been to stabilize and transform technology at the university. The administration is

providing funds to build a new infrastructure and new systems. During the past year major improvements in the university network were completed, including a total replacement of the principal pieces of the wired network. A new wireless networking technology was also deployed, giving USD a 100% wireless campus rating. ITS completed the upgrade of the university learning management system, and a streaming video server was made available for the entire university community. Major Web development projects for the schools are underway and faculty have access to increased instructional technology support through the "iTeam." Academic Technology Services (ATS) has provided additional support for technical and research computing for faculty. A new student administrative system and portal is on schedule, with the *MySanDiego* portal (and virtual one-stop center) activated in April 2007 and Banner Admissions going live in September 2007.

Many more improvements of student administrative systems will occur in 2008 as additional Banner modules are activated. Enhancements to the e-mail and calendar environment will improve complex scheduling needs. Finally, under the auspices of the provost's office, the Information Resources Council (IRC) continues to be an important means for faculty to provide feedback and advice to the CIO and ITS about technology needs and services.

In 2007, several important steps were made in our efforts to transform technology at USD and ITS hopes that this is just the beginning of a series of improvements that make technology consistently stable and of the highest quality for the USD community.

A handwritten signature in black ink that reads "Christopher W. Wessells". The signature is fluid and cursive.

Christopher W. Wessells
Vice Provost and CIO

Operating Expenses

General Budget

ITS operated with a budget of \$13,285,271 during the 2006-2007 fiscal year. This includes \$1 million for the Computer Replacement Program (CRP) and \$150,000 from the Housing and Computer Support budget for wireless upgrades. The chart below illustrates a breakdown of expenses in percentages.

Computer expenses: \$1,583,530 (\$1 million from the work order and \$583,530 from the ITS operating budget)

Network and other operating equipment: \$3,059,601 (main projects include \$579,764 for Mirapoint spam filtering, e-mailing and calendaring system; \$1,067,229 for Cisco Phase I network equipment; and \$428,306 for wireless)

Software: \$274,342

Hardware/software maintenance and support: \$856,163

Discretionary funds: \$924,417 spent on other operating expenses such as contract services, supplies, professional development and professional fees

ITS Expenses 2006-2007 \$13,096,699

Salaries and Benefits	42%
Network Equipment	12%
Computers	11%
Other Operating Expenses	7%
Maintenance and Support	6%
E-mailing/Calendaring System	4%
Media and Classroom Equipment	3%
Internet	3%
Oracle	2%
Software	2%
Wireless	2%
Consultants	2%
Other Equipment	1%
Professional Development	1%
Student Help	1%
Federal Work Study	1%

Banner Student System

ITS was provided just over \$5.7 million to move forward with the Banner Student System and Luminis project in June 2006. As of June 30, 2007, ITS has spent a total of \$3,132,665 on the project. The chart below illustrates the breakdown of expenses so far.

Banner and Luminis Expenses

Consulting	34%
Software	31%
Hardware	18%
Salaries and Benefits	14%
Professional Development and Training Costs	3%

New and Enhanced Services

Calendaring for Groups

The university uses an integrated spam filtering, e-mailing and calendaring system that is composed of Mirapoint and Microsoft Exchange technologies.

In the search for a new spam filtering and e-mailing system, the university also sought a unified calendaring system with the ability to publish calendars to handheld mobile devices. The selection criteria specified that the system be cost effective, robust and simple to maintain. Mirapoint's e-mail service was an instant success, but it quickly became apparent that the calendar component was not meeting the needs of more complex calendar customers who may schedule up to 5,000 events.

Incorporating feedback from USD leaders with further investigation, ITS purchased Microsoft's Exchange technology to supplement the Mirapoint environment. Exchange is an industry standard, able to handle the requirements of most complex calendar users. The initial Exchange calendar rollout was completed in late 2007.

Mirapoint remains the university's spam filtering, e-mailing and calendaring system for the majority of campus including students. Microsoft Exchange will be the standard for users requiring complex calendaring service.

Campus Map Connects with Resource25

The debut of the interactive campus map in 2006 set the stage to integrate on-campus event information into the Campus Map Web site from the new Resource25 scheduling tool.

Over the course of the past year, ITS, in partnership with the office of Public Affairs, has continued to work with Ken Soto of SotoDesign and Scott Robinson of FreshForm Interactive to make this functionality a reality. Currently in a test environment, selected campus event information is extracted from Resource25 for display on the Campus Map site. When an individual building is selected, information about the event, parking and tram stop locations is displayed for that building.

This technology is the first of its kind for a university campus map and has been nearly two years in the making. Upon completion of the project, editable map files will be made available to ITS for future campus map design updates, meaning that any changes to the campus map will be available on the Web site in a timely manner.

Junk Mail Manager

In November 2006, USD implemented a more advanced spam e-mail technology. Mirapoint's Junk Mail Manager addresses the evolving spam landscape with individual quarantine mailboxes. In addition to antivirus features, Junk Mail Manager integrates complex controls as well as automated deletion of quarantined e-mail. Designed to complement any existing mail server, Junk Mail Manager works with traditional desktop clients like Microsoft Outlook to filter messages to inboxes. An intuitive Web-based interface is also provided so customers can log into their quarantine mailbox securely from any Internet browser and manage junk e-mail.

Online Event Payment

Over the past year, Academic Technology Services (ATS) and Administrative Information Services (AIS) have worked with departments across campus to enable online payment for events, conferences and special classes. Using customized online forms, registrant information is collected and routed to a database where registrants submit payment via a secure off-site credit card processing interface.

ITS has worked with more than 20 departments using this new tool. Feedback has been positive and the service has streamlined business operations for departments, allowing the focus to be on customer service rather than data entry or manual payment arrangements. For more information on the payment service, please see the Web Services Web site.

Video Server Implementation

Following a successful pilot in Spring 2007, the university now has in place a streaming media server.

The server is capable of delivering a variety of media formats for both on-demand and live broadcasts of audio and video. Customers can log onto the self-service Web site to upload various media types including Flash, Windows Media, QuickTime, and RealPlayer. Streams can be made available to all Internet users or restricted to the USD community.

Live streaming broadcasts of high profile and popular events can be made available to the USD community and beyond in real time. Approximately 25 users representing different departments on campus are successfully delivering streaming media via this new server. Step-by-step instructions and short training sessions are available on the Web site.

Web Server Improvements

Improvements continue on the USD Web site, such as the debut of a new School of Business Administration (SBA) site. Behind the scenes, technical changes are improving the speed at which pages are viewed.

Campus Web site redesigns have three major goals: to improve the look of USD's Web pages, the structure of the Web pages and the speed at which the pages may be viewed. The new structure ensures that pages are easily read in alternative browsers such as voice readers, cell phones and search engines. Additionally, the new structure makes the layout easier to redesign in the future, improves USD's Americans with Disabilities Act (ADA) compliance and raises USD's ranking on search engines.

ITS is also using redesign projects to simplify and optimize code so that pages can be viewed faster. USD's Web pages currently reload each time they are viewed. By comparison, the new SBA Web site caches page sections that rarely change, so that they can be redisplayed much more quickly. Upcoming redesigns will follow the same model. The goal is to ensure that all pages view quickly even when the Web server is under heavy load.

ITS has also upgraded to a new Web server. The hardware has two dual processors, each of which is faster than the two single processors on the old server. The new server displays pages significantly faster under load.



Collaborative Projects

Banner Student System

The Banner Student System and Luminis project is the largest collaborative effort undertaken at USD, with over 100 team members working together to implement USD's next generation student information system. The system will tie together the following modules:

- Banner Student System
- Banner Financial Aid System
- Xtender Imaging
- Operational Data Store (ODS) Reporting
- Luminis Portal (*MySanDiego*)
- Ancillary supporting products

The project is structured with roughly 25 teams working in parallel on different components. All team members have received extensive training and many business processes have been reviewed and streamlined. Data from the current legacy systems is converted and migrated over to Banner for each module.

The following two project milestones have been successfully completed:

- *MySanDiego*, USD's new portal, debuted April 4, 2007.
- The undergraduate and graduate admissions offices began using Banner in September 2007.

MySanDiego provides every member of the USD community a personalized entry point into the digital campus, granting 24-hour access to information and services previously limited by location or hours of operation. The integration with Banner will provide seamless single sign-on access. As the portal evolves, the vision is to provide the community with a solid, accessible path to the applications and features required to support USD's digital campus.

Using Banner, the admissions office is automatically loading all inquiry, test score and application data and processing the information more efficiently. Using the communications feature, they are able to communicate quickly and efficiently

with prospective students and applicants using Banner's capability to assign communication plans automatically according to degree level, field of study and term. All mailings are dated and marked with detailed information to provide a full audit trail of correspondence.

The next three major milestones in this project are the debut of Financial Aid on February 6, 2008, the registration system at the end of March 2008 and Student Accounts in July 2008.

Additionally, the Banner Xtender imaging technology has enabled the admissions office to go paperless. Everything that needs to be stored as part of a student's permanent record, such as applications, e-mail correspondence, transcripts, and letters of reference are now imaged and stored in a secure environment. Integration of student photos from the Campus Card systems into Banner will help improve online class rosters. That is, faculty will have student photos attached to their online class rosters.

Another major component of the project is the online reporting and querying feature. These reports will be easily accessible via the secure *MySanDiego* portal. An executive dashboard providing summarized key performance data will be provided once the operational reports are completed. Ad hoc reporting and generation of standard recurring reports will be much easier for key university users seeking information.

Computer Replacement Program

The Computer Replacement Program (CRP) ensures that computing resources on campus are up to date. The CRP provides computers for tenured or tenure-track faculty and permanent, benefits-based employees on a regular cycle. Standard computer options include both Macintosh and Windows-based laptops and desktops. Configuration upgrades are commonly made to the processor speed, amount of memory and hard drive size to meet changing operational needs.

During the 2006-2007 fiscal year, 1,145 computers were acquired and delivered to faculty, staff and public workstations across campus. Included in this figure were

933 (81%) Windows-based systems and 212 (19%) Macintosh systems. Approximately 21% of all computers acquired were laptops. Through the CRP, ITS funded all or part of 716 computers. Approximately 429 computers were funded through individual departments, faculty grants and research grants. Regardless of funding, ITS orders, installs and supports all university-owned systems.

Below is a timetable of when all current leasing schedules will be replaced with new computers under the current Dell Financial Services lease.

Schedule	Replacement Time	Due back to leasing company
Schedule 3	Summer – Fall 2007	March 3, 2008
Schedule 4	Spring 2008	June 30, 2008
Schedule 5	Summer – Fall 2008	December 3, 2008

Emergency Notification System

ITS and Public Safety have been working with The NTI Group, a vendor that provides emergency communication services via their *Connect-ED* product. Should an emergency occur on campus, Public Safety can use the *Connect-ED* service to send out emergency communications and instructions via Web site postings, e-mail, land line, cell phone and SMS text simultaneously.

ITS ensures that The NTI Group has accurate contact information by sending an automatic weekly list of contact data for all faculty, students and staff.

During the summer of 2007, Public Safety conducted a successful test of the *Connect-ED* system, which validated the basic framework of the process. The system was critical during the 2007 wildfires, when it was used four times over the course of a week to notify the community about campus closures, class cancellations and general fire-related updates.

IT Training Program Expanded

Each year the IT Training program presents more than 250 free technology workshops to faculty, students and staff. More than 1,000 participants benefit annually from the variety of training sessions offered. These sessions provide opportunities for professional growth and skill development on university-supported software applications such as Microsoft Office, Adobe Creative Suite and Web development applications, as well as the course management system, CE6, and its associated integrated technologies including Wimba, SafeAssign and Respondus.

Training workshops in SPSS, Microsoft Access and introductory computer workshops in Spanish have been

popular. These have been made available through the generous collaboration and contribution of faculty and staff across campus.

Library System Improvements

The Helen K. and James S. Copley Library and the Pardee Legal Research Center provide electronic and physical access to collections in pursuit of the academic mission of the university. In addition to improving and expanding access to all forms of information using innovative technology, the libraries evaluate, manage, license and apply information, as well as oversee the legal, social and ethical aspects of information use. The libraries' core mission includes teaching information literacy.

The libraries work in partnership with all academic units and several administrative departments. ITS financially supports and manages many of the critical library systems.

This is the second year of the libraries' four-year plan to implement new products that will benefit students and faculty. Not only do these enhancements position the libraries for growth, but they also allow the library system to integrate with other departments and applications such as the *MySanDiego* portal and other services.

Last winter, the libraries launched the first phase of their redesigned Web catalog which continues to add features. Access to the library has expanded to the *MySanDiego* portal. The San Diego County Public Library has been added to the Circuit System, which now can loan more than 7.5 million items within the Circuit and the university now provides access to more than 29,000 electronic books.

In the coming year, library users can look forward to the addition of RSS feeds, spell-checking capabilities and a redesigned Circuit Web site and logo. As part of the integration with the portal, single sign-on will be implemented, providing easy access to library accounts and electronic databases via *MySanDiego* usernames and passwords. During the next fiscal year, the second phase of the Web catalog's redesign will be implemented.

ITS continues to upgrade the library system software and other applications as needed. In addition to the annual upgrade to Release 2006, ITS updated Daylight Saving Time (DST) software. To improve security, staff members accessing the library server via any telnet application were switched to a more secure telecommunications program and every staff member now has an individual login, eliminating the use of generic login names.

Resource25

Resource25 is the university's new event scheduling software. During 2007, the university's special event



coordinators transitioned to this program for scheduling events around campus.

ITS has supported the development of custom reports and notifications, custom invoices tailored to each venue's unique needs and pricing, and methods to track billable events, deposits and payments received. The next step for special event management will be the implementation of workflow, an automated, internal management of steps needed to book an event, request resources, communicate with clients and provide invoicing.

In Spring 2008, ITS will see the transition of academic scheduling from the old student information system to the new Banner student information system. Resource25 integrates with Banner to create each semester's academic schedule and to facilitate online registration.

The transition of academic scheduling will be completed by the end of Spring 2008. At that time, all scheduled university events will be managed with Resource25 and will be viewable online via USD's Events Calendar.

Responsible Use Policy Revised

In June 2007, through the office of the General Counsel and ITS leadership, the university implemented the Policy on Responsible Use of University Computing Resources. This policy was developed by two campus-wide committees and approved by the University Senate, cabinet and president. It was based upon current standards within higher education and is a complete revision of the 1994 Acceptable Use Policy.

The new policy identifies expectations of anyone who uses the university's electronic resources including computers, electronic and mobile communications systems, telephone and data systems, networks, Internet connections, software programs, and related hardware and infrastructure. Since these systems are provided to support the university's mission, their use must follow the requirements of legal, ethical, authorized and appropriate behavior.

The university has communicated this new policy to all users of the university's computing system through training

sessions, postings on the USD Web site, campus-wide e-mail messages and other notices. In addition, customers are required to read and acknowledge the policy as a condition of accessing the university's network. This policy, along with other revised university policies, is listed on the General Counsel Web site.

SBA Web Site Redesign

A dynamic and functional Web presence is key for any organization. This is especially vital for academic units on campus, and during the past year ITS helped the SBA completely redevelop their online presence and has begun similar projects with other areas.

Utilizing Web and design consultants, the SBA, with ITS personnel, examined model academic Web sites, interviewed constituents to learn their needs, and created a new Web site design and architecture which was useful, innovative and forward-thinking. The image-based approach that underlies the Web site ensures that prospective students, current students and alumni not only read about the school's programs, centers and accomplishments, but also come away with a true sense of the USD experience. The entire redesign process from start to finish spanned slightly more than five months, with the Web site debut in July 2007.

David Bergheim, director of relationship management in the SBA, says, "The ITS organization helped to identify a design firm that helped us to look at our challenges with a fresh set of eyes and outside perspective. This allowed us to hold focus groups, benchmark how other business schools are marketing themselves, and come up with a breakthrough concept that vastly improves how we use our Web site to communicate with external audiences. After the launch of the new Web site, ITS has continued to partner with us to solve problems and continually enhance the effectiveness of our site."

These future enhancements include technology for the SBA home page which will allow the school to approximate the geographic location of the Web site visitor in order to present a customized landing page and an enhanced media experience.

Based on the success of the SBA redesign process, ITS has launched several similar projects with the other schools at the university, as noted in the Future Initiatives section of this report.

TelePresence World

In the past year, USD has invested nearly \$3.6 million in building a state-of-the-art network with Cisco Systems and AT&T. The resulting high-performance network was one element that attracted some of the most advanced technology companies in the world to showcase their latest telepresence technologies at TelePresence World, held at USD in June 2007.

ITS, along with Continuing Education and Hemispheres International, hosted approximately 500 CEOs and corporate executives at TelePresence World to experience the cutting-edge technology offered by companies such as Polycom, Cisco Systems, Teliris, and Digital Video Enterprises.

The clarity, quality and immersive nature of telepresence video and audio is astonishingly realistic. The participants in a telepresence conference are likely to be in multiple locations around the world, placing considerable demand on network and telecommunications resources.

The new USD network and dedicated staff throughout campus performed admirably in making the 2007 TelePresence World conference a great success.

Academic Services

Academic Software

In 2006, the National Research Council published a report on “learning to think spatially,” identifying this to be an essential skill that should be integrated into all disciplines. To this end, ATS has worked with the science units on campus to purchase and install Environmental Systems Research Institute (ESRI) software, a computer-based spatial data management system. This tool helps prepare students for work in the fields of education, engineering, housing, business, political science, health, physical sciences, natural resources and many other disciplines.

This integrated software package can be used for building a complete geographic information system (GIS), allowing authors to create data, map and globe models on the desktop, then view and use the results through Web, desktop and mobile clients.

Faculty members are enthusiastic about the use of GIS in their courses. One professor of sociology uses GIS to map urban change, gentrification, immigration and home values. Another professor in economics will use it in housing market

research. Student projects perform spatial analyses of San Diego County to depict demographics and transportation characteristics in neighborhoods, map historical resources, geocode urban forests, or perform network analysis of high-speed train routes in southern California.

CE6 Course Management Upgrade

In Spring 2007, the university successfully upgraded its course management system from WebCT CE4 to Blackboard Learning System CE Enterprise License, version 6.2 (CE6).

This upgrade process involved the purchase of new database servers for added reliability running on two-tier technology. The installation of a development server, integration with the student registration system, migration of content for approximately 1,000 courses, training of system administration personnel and training of over 500 faculty members have been components of an intricate but successful migration process. The chart below illustrates the growth that the course management system has experienced since the migration.

Usage	Fall 2006 CE4	Fall 2007 CE6	Percentage Growth
Active Users	5,081	8,873	75%
Active Students	4,753	5,527	16%
Active Instructors/ Designers	399	547	37%
Total Courses	1,028	1,998	94%
Active Courses	437	646	48%
Total Online/Blended Delivery Courses	90	120	33%

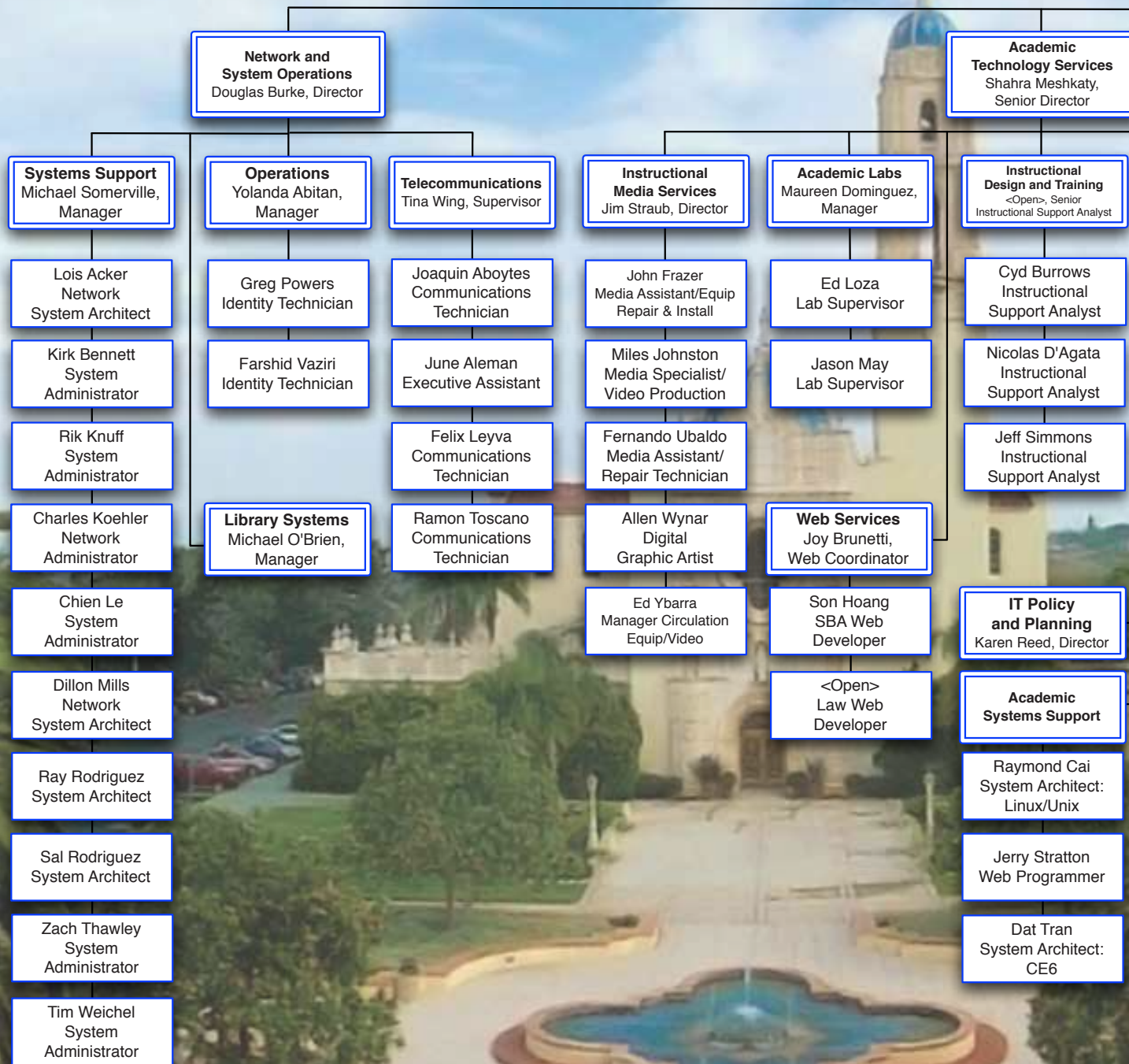
Additional improvements to the CE6 system include a customized, user-friendly login screen and the integration of Wimba and SafeAssign instructional technologies. Planned improvement projects include an automated enrollment process upon request of course activation, and integration with the Banner system.

Critical to the success of the migration, and to continuing adoption, is the training of faculty and students. The CE6 team worked with a distributed support team of designers and coordinators across campus and at a distance in migrating courses. ITS’ ongoing monthly training sessions provide new users with an introduction to CE6 and advanced skill development and multimedia integration for experienced users. Many new or expanded tools in CE6 provide better functionality and flexible new features as compared to the previous version.

Information Technology Services

Organizational Chart

Christopher
Vice Provost



Wessells
st and CIO

Budget and Operations
Liza Peterson-Gary,
Manager

Mary Kowit
Executive Assistant

Yesenia Maybee
Budget & Inventory
Coordinator

Emilia Moore/
Amanda Goodrich
Administrative Assistant

**Administrative
Information Services**
Shawn Strande, Director

**Desktop
Support Services**
Rosy Vacchi, Director

Database Admin
Matthew Hejazi,
Manager

Financial Systems
Rick Seaman,
Manager

Student Systems
Pam Caldwell,
Manager

**Distributed User
Services Support**

**Central User
Services Support**

Tech Support Center
Loraine Graves,
Manager

Zahra Khalili
Database
Administrator

Ann Lander
Project Leader

Czen Balagtas
Project Leader

Sebastian Allen
Desktop Support:
Comm/Art

Davey Smith
Lead Desktop
Support Technician

John Hutchens
Tech Support
Analyst

Steve Taburiaux
Database
Administrator

Ray McCormack
Senior
Systems Analyst

Matthew Brennan
Senior
Systems Analyst

Jordan Anderson
Desktop Support:
Arts & Sciences

Ruben Valdez
Computer Lab
Technician

Mark Zocher
Student Technology
Services Manager

<Open>
Database
Administrator

Dan Nichols
Senior
Project Leader

Kushan Hewa
Project Leader

Anthony Armijo
Desktop Support:
Student Affairs

Juan Ybarra
Desktop Support:
Admin Services

Christian Rapp
Senior Systems
Analyst: Banner

Bob Purcell
Project Leader

Nail Cho
Desktop Support:
Science & Technology

<Open>
Desktop Support:
Campus Support

Portal Technologies
Indra Bishop, Director

Ken Wilford
Project Leader

Lalo Flores
Desktop Support:
Student Affairs

Shiva
Ayalasomayajula
Portal Developer

Richard Garner
Desktop Support:
SOLES

Danny Crinion
Senior
Systems Analyst

Jerry Singleton
Project Manager

Matt Mueller
Desktop Support:
School of Law

Andrew Maller
Banner
Testing Analyst

Dan Pham
Desktop Support:
School of Nursing

Josh Salinas
Desktop Support:
School of Business



Clickers in the Classroom

Clickers are handheld devices which students use to key in answers to instructor-posed questions. Clicker technology allows students to provide immediate responses and participate electronically in classroom polls and quizzes. These systems can be used to take attendance and elicit anonymous responses to sensitive issues, as well as to challenge students, elevate participation and increase attendance rates.

Faculty members who participated in the Spring 2007 pilot project for clicker technology selection brought their findings together so that one standard product could be adopted campus-wide. Faculty members, students, ITS and USD Bookstore personnel participated in the project and the recommendation was made to adopt elnstruction Classroom Performance System (CPS) for the Fall 2007 semester. ITS and CPS together extended training and support and nine faculty members incorporated clickers into their fall courses.

Goals of this technology are to increase student engagement, gauge lecture absorption and elicit responses and participation from a greater number of students in the classroom. ITS will be surveying students and faculty at the conclusion of the Fall 2007 semester, and new ways of implementing this technology will be examined.

Research Computing Support

During the spring of 2007, ITS and faculty in the sciences and mathematics departments met to address appropriate support for Linux and Unix systems. As a result of this discussion, a joint staff position was shaped that included considerable Linux expertise and a continuing collaboration with ITS.

A system cloning process for the Linux lab in mathematics and computer science is now in place and all machines are configured with instantaneous deployment capability. Installation of open source software now meets math faculty requirements for research and teaching.

Faculty members report that the significantly improved support on Unix and Linux systems has been instrumental in improving academic research and central ITS services.

STA Program

The Student Technology Assistant (STA) program is a service funded by the provost's office in collaboration with ITS that launched in Spring 2007. This program is designed to assist faculty with expanding their use of multimedia, Web and other educational technologies in course curricula.

At the start of the Spring and Fall semesters, full-time instructors are invited to submit technology-related project proposals. An advisory group composed of faculty, ITS professionals and administrators reviews these proposals. Evaluation is based on the complexity of projects, requirements for the use of technology to improve the curriculum, and course content.

Faculty members whose projects are selected are teamed with an STA for one semester. The project must have tangible benefits for future teaching and be replicable as well as improve the course over time. Students are assigned based on the scope of the project and their technological skills. Further training and project management are provided by program supervisors.

STA projects have included students assisting in developing CE6 courses, video and audio editing, developing Web sites, digitizing media, and creating interactive learning modules using blogs and wikis.

StudioAbroad

This year, USD consolidated all of its international studies abroad and services for international students and scholars into the International Center. One of the necessary pieces to make this new center successful is StudioAbroad software.

Carl Jubran, associate provost for internationalization, toured several university international centers and discovered the critical need for a Web-driven, database-integrated administrative software package. StudioAbroad was chosen as the premier study abroad software package and will be used on campus by the International Center beginning in Spring 2008.

The International Center will be able to create a robust study abroad Web site, keep program brochures up to date,

query students on programs and accept applications online. As students apply, StudioAbroad uses the information provided to generate a personal login page where they can track deadlines and keep personal documents. The implementation of the program is streamlined with the International Center's mission to create a one-stop shop for the needs of all international students and faculty. As the Banner project moves forward, there will also be an opportunity to integrate student and administrative data and functions between Banner and StudioAbroad.

Technology in the Classroom

The classroom equipment remodeling and upgrading process continued during the summer of 2007 with 17 rooms completed. In addition, 23 new classrooms and learning spaces were completed in Mother Rosalie Hill Hall.

Upgrades in classrooms included installing new consoles with a SmartPanel control system for audio/video equipment, a video/data projector, Windows or Macintosh computer with a small number of SMART Sympodiums, network connections with guest laptop accessibility, DVD/VHS player, Instreamer audio converters, and a sound system.

Classroom equipment in Mother Rosalie Hill Hall includes new consoles with control systems for audio/video equipment, video/data projectors, and Mac mini computers. Major classrooms now include all audio, video and networking equipment. Some rooms are equipped as observation rooms with built-in recording systems. ITS currently operates 26 classrooms, both remodeled and new, with audio streaming capabilities all completed during the 2006-2007 fiscal year.

Paula Cordeiro, dean of the School of Leadership and Education Sciences (SOLES), says, "The new technology in the building will give us real-time opportunity to teach, not only across the United States, but across the world. Students no longer have to sit in a seat in front of a professor to be enrolled and actively participate in classroom discussion and lectures. The technology in our new building will bring the world to our classrooms. 'Awesome' is the word most frequently heard around the building to describe the technology."

An opportunity to combine both Video Teleconferencing (VTC) and audio conferencing in these rooms with control systems was not missed during the technology development for the new building. Four additional classrooms have built-in Sony VTC systems for worldwide access. These rooms also have state-of-the-art audio conferencing capabilities. In total, USD now has nine rooms available across campus for VTC. Projected capacity stands at 824 people and over 78,800 hours of potential use per year to conduct meetings around the world 24/7.

Technology Showcases

ATS kicked off the Spring 2007 semester with a Faculty Open House, a new event that showcased services in a relaxed environment where faculty could access and experience emerging technologies, speak with vendors, see demonstrations and test products first-hand. Technologies on display included CE6, Wimba, video production, podcasting and classroom media tools. Vendors were on hand to promote products and answer questions.

In conjunction with the Center for Educational Excellence (CEE), ATS co-sponsored the Faculty Technology Showcase during the Spring 2007 semester. This event featured various faculty projects and specific uses of technology on campus to encourage others to become effective users. Continuous demonstrations of technology products gave attendees a hands-on opportunity to become acquainted with these new and emerging resources.

ITS also presented an overview of technology services to new faculty arriving on campus in the summer. The event introduced ITS professionals and services and demonstrated the array of technology options available campus-wide.

WebGrades Implemented

During Spring 2007, AIS and the office of the Registrar implemented WebGrades, a self-service course grading application for undergraduate and graduate courses. WebGrades gives faculty the ability to submit midterm and final grades for their students from any Internet-connected workstation.

Based on Oracle technology, WebGrades is a significant improvement over its Scantron-based predecessor. WebGrades' user interface was designed with faculty and staff input and provides quick grade entry, ability to print rosters, real-time grading data, transaction logging for audit trail purposes, and a set of comprehensive administrative tools and reports for the office of the Registrar.

As a Web-based application, WebGrades can be used anywhere, both on and off campus, by any faculty member or office of the Registrar employee with Internet access. Authentication is via existing *MySanDiego* usernames. As a result of the use of WebGrades, instructors submitted 95% of Spring 2007 final grades and 83% of Summer 2007 final grades online.

Training was provided to the campus community via instructional documents available in the WebGrades application as well as lunchtime walk-in sessions during the Spring 2007 midterm and Summer 2007 final grading periods. WebGrades will be retired upon completion of the Banner implementation.

Wimba and Pronto

One of the most robust additions to ATS' portfolio of technology products is Wimba, acquired Summer 2007. This instructional tool provides features that bring classroom delivery and conferencing alive in the virtual world.

Critical components of classroom technology evaluation and selection are ease of use and faculty input. Another element considered during this selection process was the integration of a virtual conferencing environment with CE6. Wimba provides that functionality and is a fully integrated part of every CE6 course offered.

New products must be easy to implement and learn. Wimba's Live Classroom feature can be used as a stand-alone conference environment, replacing the need for other solutions. Marketing and promotional presentations can be created easily and archived for future playback and distribution. Wimba supports Voice over Internet Protocol (VoIP) telephony technology, and video enables all participants to be seen and heard. Wimba's Voice Tools are also integrated into all CE6 courses, offering needed audio capabilities.

Pronto is Wimba's instant messaging system, designed to help students and faculty interact quickly with one another. Contact lists are populated automatically from course rosters so that students and faculty can connect instantly with one another online.

Network Improvements

Active Directory Migration

The Microsoft Active Directory (AD) domain is a directory service that is an integral part of the Windows network architecture. Like other directory services, AD is a centralized and standardized system that automates network management of user data, security, authentication and distributed resources, and enables interoperation with other directories. The AD Domain Controller provides better performance, more functionality and increased reliability for the campus network.

In 2007, Network and System Operations (NETS) migrated remaining staff computers to the AD Domain, a total of 550 colleagues. The project allowed the network team to audit accounts and network storage, deploy the Mirapoint e-mail system to all customers and make changes to better serve the needs of departments.

In order to migrate systems, ITS technicians visited each office to work on every computer. The migration was begun in April and completed in July. After a week with no domain issues arising, on August 7, 2007, the old NT 4.0 Domain Controller was permanently decommissioned.

Administrative Systems Infrastructure

The central server infrastructure that supports USD's major enterprise administrative systems (Oracle E-Business Suite, BSR Advance, and Banner Student System) runs on large IBM AIX servers. A significant advantage of IBM AIX hardware is the possibility of dividing physical servers into smaller and more efficient servers, a process called virtualization.

The decision to replace large central servers of this type is driven by market pricing and technological considerations. At the beginning of the Banner project, USD had three servers for testing and production environments. ITS now employs 11 servers for development. The IBM technology has provided the ability to request new Banner system resources for development, testing and training without the typical delay in provisioning new hardware. This technology also allows for the system to expand dynamically as demands grow throughout the year.

ITS carefully examined market pricing while trying to stay within a three-year replacement cycle. The organization is monitoring the performance of core administrative systems as systems are added or enhanced. ITS has been working closely with IBM and Direct Systems Support (DSS) to determine the optimal time to enhance the IBM AIX infrastructure. In December 2007, ITS, with the assistance of Finance and Administration, secured a three-year lease to replace and expand the central IBM server infrastructure that runs the enterprise administrative systems. The new infrastructure offers significantly greater computing capacity and storage that will ensure high-performance and high-availability of administrative systems. This new hardware will cost ITS \$179,000 per year for three years.

Aruba Wireless Coverage

In 2006, the university provided funding for a stable network infrastructure. The first goal of this project was to rebuild the existing multi-vendor wireless network with a single-vendor solution for a reliable wireless network.

The work began in Summer 2006, providing wireless access in the residence halls, followed by classrooms and administrative offices in Fall 2006 and Intersession 2007. In Summer 2007, the network and telecommunication staffs completed wireless coverage in outdoor areas. Wireless access is pervasive throughout campus and connections are readily available. USD is now classified as a 100% wireless campus.

Cell Tower Coverage

The geographic features of the USD campus make it one of the premier campuses in the country, yet the peculiar location of certain buildings below the mesa makes cellular phone coverage especially difficult.



In 2003, Finance and Administration, contracting with Trammell Crow Company, negotiated with cellular phone service providers for antenna space on university property, typically on rooftop locations. Currently Sprint Nextel has installed cellular facilities. Verizon Wireless is scheduled to have cellular antennas installed in January 2008 and AT&T will follow later in 2008.

Cellular phone providers anticipate that signal strength for the USD campus and surrounding community will be improved significantly. However, there are still likely to be “dead zones” within certain buildings due to physical characteristics of the construction.

ITS and Academic Affairs have contacted Verizon Wireless and AT&T to emphasize that the original goal of maximizing reception be given serious attention. If weak cellular signal coverage still exists after work is completed, ITS and Facilities Management will examine the costs of installing microcell facilities and in-building cellular repeaters to improve signal strength.

Identity Management

Identity Management is the service which controls a user’s credentials and defines how individuals log onto systems at USD. A sound Identity Management system is critical for IT security and allows for much more sophisticated control of how IT services and resources are granted to particular users. The system also eliminates the need for customers to walk to several locations on campus to resolve issues and open accounts.

During Fall 2006, ITS collaborated with several groups to build a system that can create accounts online. This homegrown system is a marginally acceptable interim solution until a more robust Identity Management solution can be purchased and implemented.

ITS is currently evaluating systems from Microsoft, Sun Microsystems and Computer Associates, among other firms. In addition, ITS is consulting with other universities and businesses for recommendations, and ITS plans to purchase a system during the 2007-2008 fiscal year for implementation in 2009. Replacement of the Identity

Management solution is expected to cost approximately \$400,000.

Network Vendor Highlights

In January 2007, NETS began working with AT&T to design and install a state-of-the-art, fully redundant, high-performance, secure network. Phase 1 of this effort replaced old Foundry Networks and 3Com network equipment in the wiring closets with new Cisco switches. Phase 2 involved replacing all equipment in the server rooms and in Summer 2007, Phase 3 replaced the core network routers and switches with high-speed Cisco electronics.

With the help of AT&T and Cisco, the network cutover went smoothly. This was a critical phase because of its complexity, with all of the networks converging into the core and hundreds of connections to be completed properly. This \$3.6 million upgrade of the university’s data network represents a major step forward with technology and puts USD’s network at a level equal to or greater than those of many peer institutions.

Phone System Upgrades

During the 2006-2007 fiscal year, the university noticed a significant increase in the volume of calls coming into various departments throughout campus. Departments were unable to handle the large volume and callers were hearing busy signals, hanging up or seeking other means to get through to departments.

Telecommunications sought a solution with a tool in the Avaya phone system. Using Automatic Call Distribution (ACD), ITS created a rule-based set of instructions telling the phone system how to route calls according to the caller’s request.

Financial Aid Services, the Tech Support Center (TSC) and the USD switchboard became the first areas to utilize the ACD features. ACD has decreased the time callers are on hold by allowing the caller to hear special instructions or redirecting them to the proper representative. ITS is evaluating a tool that works with the ACD program to supply “call-volume” reports to the departments. These reports may help in determining ideal times for staffing based on the volume of incoming calls.



IT Communication, Research and Outreach

Employee Hiring and Promotion

As in any complex IT organization, transitions in staffing are inevitable. The labor market for information technology professionals in San Diego can best be described as challenging. That is, aside from direct competition with other regional universities, IT organizations are under constant pressure to retain talented individuals who have the option of leaving higher education for similar positions in private industry. As a result of a push to provide better services to the community and the implementation of the Banner student system, ITS had an overall net gain in positions during the past year.

In total, ITS hired 21 new employees and promoted 8 employees from previous positions within the department. Ten of the newly hired or promoted staff members replaced departing employees. Hirings and promotions spanned all divisions of the organization and will greatly enhance customer support and services to the entire university community.

Desktop Support Statistics

This is the second year that the TSC used FootPrints incident-tracking software. ITS has expanded usage of this tool to include the new TSC Web site. On this site customers can browse FAQs or search the KnowledgeBase for a technology solution specific to USD products and services. Technical assistance can be requested and request status can also be viewed.

The following statistics come from the data tracked in FootPrints between July 1, 2006, and June 30, 2007:

- 7,475 desktop support trouble tickets were generated. 7,448 of these tickets were resolved.
- 365 student tech support trouble tickets were generated. All of these tickets were resolved.
- Combined, there were 7,840 trouble tickets created for faculty, staff and students.

- 315 customer surveys were completed. Of these 315 faculty and staff members who responded to the survey, 204 said the service they received exceeded expectations, 100 said the service they received met expectations and 11 said that the service provided did not meet expectations.

Disaster Recovery Plan

This year, ITS began to develop a comprehensive technology disaster preparedness plan capable of responding effectively to disruptions of business services. The fires of 2007 reinforced the need for a comprehensive and manageable set of responses to real-world events that impact our capability to deliver high-quality and timely services.

Both the academic and administrative functions of universities rely upon networks, telecommunications and electronic information systems. Additionally, there are many federal and state regulations that have established best practices for the protection of personal or financial data, which impact both IT planning and the reputation of an organization. Failure of a single core system would have a major negative impact to a university. Therefore, information technology continuity and recovery plans are vital to institutions of higher education.

USD contracted with Risk Solutions International (RSI) for assistance in the area of campus-wide business continuity and completed an initial business impact analysis, collected relevant employee and vendor information and surveyed the campus as to preferred recovery time objectives (RTO) for various campus data systems.

This foundation will be expanded upon over the next two years by ITS staff until a detailed IT disaster recovery plan is in place. Such a plan will include all procedures and contingencies for recovery from several different types of disruptions that might affect ITS-managed services. Immediate steps are being proposed to have a disaster recovery "safe harbor" site for university e-mail and Web services.

iTeam Formed

In Summer 2007, ATS mobilized a team of professionals dedicated to instructional design and technology training. Collectively known as the iTeam, members have experience in media production, Web site development, online course management, instructional design and pedagogy, and a wide range of technology applications.

The iTeam supports the academic enhancement goals of the university by encouraging faculty interest in the potential of technology for meeting instructional needs and enhancing student learning. Benefits include:

- Working cooperatively with faculty to identify goals, define instructional strategies and select or develop appropriate media.
- Working with faculty to improve online course material and delivery.
- Assisting and providing training with integrated software packages and classroom technology.
- Working with faculty to explore and experiment with new and non-traditional distance learning instructional delivery systems such as interactive video, podcasting and Web-based courses.

Team members also coordinate and train STAs, research and analyze new instructional technologies and provide training and functional support. To facilitate communication, each school has a designated iTeam member as a point of contact.

ITS and Campus Collaboration

ITS is working collaboratively with Student Affairs and the academic units to identify new technology needs at USD. These meetings complement functions of the Information Resources Council (IRC).

The IRC meets four times a year and serves to advise the CIO and provost on technology needs. Members of this council represent the various academic units and together discuss needs, problem areas and future expansion. One of ITS' goals is to assess the needs of the university so that ITS can then research, bring new solutions to campus, pilot these strategies and carefully select technologies of value.

Appreciating the critical role that students play in establishing what technology comes to campus, ITS has begun recurring meetings with Student Affairs on the changing technology needs of students. Recognizing that students carry technology in their purses, backpacks and pockets, and that they often seek instantaneous access to

information and services, ITS is working with Student Affairs to identify ways to respond to such trends and how to improve technology for students.

ATS has improved outreach to the college and schools on campus to establish a flow of information and support. The iTeam is a liaison to faculty dedicated to improving the use of technology both in the classroom and online. Instructional technology workshops, open houses and training sessions help the iTeam and ITS leadership educate the university community on technology matters.

Software Advisory Committee

In Fall 2007, ITS revived the academic software committee. This advisory group operates as a subcommittee of the IRC to facilitate the purchase of desktop software. Committee members will help establish a formalized process to evaluate software requests with major acquisitions, assist in determining demands, assess the need for campus-wide packages and participate in the approval process.

With the group's contribution, USD's ability to negotiate site license contracts, explore means to cover costs and determine best practices will be significantly improved. In general, funding will be based upon the number of recipients needing the software.

During Summer 2007, ATS began research on software management and inventory systems that can track licenses and versions, check status and maintenance schedules, and safeguard contracts. A scalable solution capable of providing reports is projected by Spring 2008.

Access to such data will allow ITS to coordinate purchases and to negotiate better prices for the USD community. ATS has begun efforts to review and revisit campus licenses with Microsoft, Adobe, SPSS and ESRI and has reviewed and updated several of these contracts.

Web Development Team Forming

In an effort to continue to improve Web sites and services at the university, ITS is building a Web development staff that will strengthen site support and maintenance efforts for the academic units.

ITS is forming a team of Web developers with dual reporting to the Web coordinator in ITS and to the assigned school unit. This will ensure that the team works closely with ITS to enable the best centralized technology site-wide while allowing the schools to foster a close working relationship with a specific developer assigned to their particular sites and needs. These developers will be competent with Web and media technology and have an understanding of the content creation, management and editing processes.

The SBA developer has been hired and the School of Law position is posted. The SBA Web developer continues to improve the redesigned Web site and works closely with the faculty and staff of the school to build event registrations, incorporate media and manage content as it is developed. The successful candidate for the School of Law position will play an integral role in the redesign of that Web site, planned for Fall 2008.

Other Web developers anticipated in 2008 include similar positions for SOLES and the College of Arts and Sciences.

Future Initiatives

Cashiering System Planned

A key application associated with the improvement of student services is CASHNet, a comprehensive cashiering system for centralized, satellite and departmental payment processing campus-wide. CASHNet Cashiering is the leading product in higher education business office payment processing and integrates with the Banner Student Accounts module. CASHNet will enable over-the-counter, back office payments and departmental deposits campus-wide.

Financially speaking, CASHNet Cashiering offers immediate check conversion to Automated Clearing House (ACH), lowering processing costs for bill payments and reducing the number of checks returned for insufficient funds. Quicker processing time of payments will effectively increase interest earnings based on less float time.

The suite of CASHNet products represents a significant step forward in enhanced services to students. USD will be able to process walk-in and mail payments at any cashier's office on campus and extend the collection and posting of commerce collected on campus with Departmental Deposits. This will allow departments to allocate deposits to specific general ledger accounts in a paperless environment. In addition, information on payments received at other locations can be downloaded into the CASHNet database. CASHNet accepts payment in many forms including cash, credit cards, debit cards, campus one-cards, money orders, checks and e-checks. All transactions entered are stored in one centralized system for audit ability and reporting.

ITS, in collaboration with the offices of the Controller and Student Accounts, will be implementing CASHNet products throughout 2008.

Content Management System

Along with the redesign of the USD Web site comes the need for a robust Content Management System (CMS) for site maintenance. A CMS facilitates the organization, control

and publication of a large amount of content to a Web site. The purchase of a CMS will allow for better support internally on the Web site and a more consistent appearance. ITS is actively surveying systems, including the Luminis CMS, Serena Collage and Contribute Publishing Server.

Currently the university uses a combination of Adobe Dreamweaver and Contribute tools in its decentralized Web maintenance model. Maintainers of redesigned Web sites are using Adobe Contribute software for the content development of their new pages, and feedback from those users has been very positive. The addition of Contribute Publishing Server would help ITS to manage site roles and permissions more centrally.

Document Sharing and Storage

The university needs to expand central storage of documents for the community. Many desktop systems on campus, including faculty systems containing critical research and instructional content, are not backed up.

Over the next year, ITS will explore the possibility of expanding central storage facilities to allow customers to save critical files to a central backed-up storage area. Other universities allow users to place critical files and data from their local systems into a special folder which is then automatically copied over to a central storage array contained in a university-managed machine room. The central storage is operated in a stable, secure and environmentally ideal location, thereby reducing the probability of data loss.

In addition to analyzing the costs and feasibility of building a central storage facility, ITS will be examining document sharing software, such as Xythos, a cost-effective system to safely capture, manage, store and share content, documents and records over the Internet. Typically document sharing systems are designed to work together with the applications and processes organizations already employ, accelerating user adoption and reducing support requirements. Xythos is particularly attractive because it is in use by universities to help simplify collaborative research and document development among groups of scholars.

High-Definition Television

The university is currently in negotiations for new long-distance telephone, Internet and television services. Discussions with leading cable television vendors will result in new television offerings.

ITS and the office of Residential Life will begin work with Swift Communications to complete a \$450,000 upgrade to the television infrastructure by September 2008, after which ITS expects to be able to provide a new expanded basic channel lineup including HBO.



In particular, USD will have the capability to provide High-Definition television (HDTV) as it becomes available from the cable vendor in their basic lineup. There are mandatory reasons to complete an upgrade of the infrastructure. As of February 2009, the Federal Communications Commission (FCC) requires all national television providers to deliver digital services and analog television signals will be discontinued. Therefore, it is essential that the television infrastructure be upgraded to accommodate the digital signal used to deliver HDTV.

Human Resources Applications Online

Human Resources has teamed with ITS to begin implementation of iRecruitment, a module within the Oracle E-Business Suite which will enable USD to manage all recruitment activities using a single self-service interface. It also provides an easy-to-use Web-based interface for job seekers.

The iRecruitment system provides a personalized experience for each group of iRecruitment users including site visitors, registered USD users, managers, recruiters and agency users. The university is working to eliminate paperwork and implement new online activities related to the administration of human resources. The goal is to help the office of Human Resources with the ongoing development of modern and highly effective services that benefit the community.

Safe Harbor Disaster Recovery Site

ITS is in the process of identifying disaster recovery sites that would contain a complete replication of the university e-mail and Web infrastructure. The initial infrastructure costs to replicate the servers, appliance and storage associated with e-mail and USD's Web presence is approximately \$300,000.

ITS is considering a "safe harbor" site in Springfield, MA, run by the NorthEast Research and Education Network (NEREN), a consortium of universities and higher education network organizations in the northeastern United States. Approximately 30 universities are affiliated with this project, including many Ivy League institutions as well as Internet 2 and the National LambdaRail project.

Safe Harbor provides machine room space with a full

communications server rack, power, high-speed Internet connectivity and network operations and monitoring for a cost of \$23,000 per year. In addition to a reasonable price that is set and controlled by higher education institutions, the location is attractive because wildfires, earthquakes and landslides are improbable events in Springfield.

The technology used to replicate the e-mail and Web environments is a combination from Microsoft, Mirapoint, Apple, Hewlett-Packard and NetApps that facilitates rapid replication of e-mail and Web site data and systems. If USD funds this safe harbor project, then in the event of a disaster that results in the loss of the USD machine rooms within the Joan B. Kroc Institute for Peace & Justice, the university would be able to immediately and transparently switch all e-mail and Web services to Springfield.

The possibility of having instantaneous communications in place is a great insurance measure. As demonstrated by the experiences of the 2007 wildfires, it is essential that the university have the capacity to communicate rapidly and effectively during a crisis or disaster.

VMware and Server Virtualization

As "green initiatives" are becoming commonplace in national universities and colleges, one of the ways to significantly reduce power usage, numbers of servers and the overall costs of server complexes is virtualization. Virtualization is one of the most revolutionary and important advances that will fundamentally change computing. In basic terms, virtualization makes it possible to run multiple operating systems and applications on the same computer at the same time, thereby increasing the utilization and flexibility of hardware.

With the deployment of virtual servers, ITS would greatly reduce its total number of 300 physical servers. Companies that have widespread use of VMware report ratios of up to 10 physical servers for one virtual server. ITS has initiated the first use of virtualization with a Hewlett-Packard machine.

Virtualization with VMware also has tremendous advantages for establishing disaster recovery servers and

for virtualization of desktop systems. It is possible that in the future, desktop systems may be diskless devices composed of a monitor, mouse and keyboard. These will be concepts that ITS explores in the future.

Web Site Redesigns

ITS and the academic units across campus are currently involved in a number of Web site redesign projects which are expected to debut in 2008.

Utilizing a project plan similar to that of the completed SBA redesign, ITS and affiliated Web and design consultants are overseeing redesigns for SOLES and the College of Arts and Sciences. While having the same goal—to enhance the Web site presence of each organization from content, design and functional perspectives—each project is a separate entity specific to that school’s needs, goals and programs.

Early September 2007 saw the kickoff of an eight-month process that will completely overhaul the SOLES Web site. A core Web group has been mobilized which represents all constituents of the school. For those not able to participate directly, a survey has been posted on the existing SOLES Web site. ITS expects to receive design elements for programming and development in early 2008, and the completed SOLES Web site will debut in May 2008.

Running concurrently with the SOLES redesign project is that of the College of Arts and Sciences. This large effort is expected to span over a year and will serve to re-energize the sites of all departments, centers and institutes in the college. The core Web group consisting of key faculty and staff in the college has been identified and constituent interviews concerning the current Web site are underway. The new site is expected to go live during Intersession 2009.

Other schools currently in preliminary stage redesign discussions include the School of Law and the School of Peace Studies.

ITS recognizes that a redesign of the core USD Web site is on the horizon. While Web sites are traditionally built from the top down, with the parent organization paving the way for the designs and creation of sub-sites within them, USD has taken an unconventional approach which strengthens the Web site development of each academic area. When funding is available for a USD Web site redesign, tentatively planned to begin during the 2008 calendar year, ITS expects that the new core USD Web site will complement and unify the new sites that have come before it.

Noted URLs

Academic Technology Services	www.sandiego.edu/ats
Computer Replacement Program	www.sandiego.edu/its/computeroptions
eInstruction CPS	www.sandiego.edu/its/idt/techtools/einstruction
Events Calendar	www.sandiego.edu/usdcal
General Counsel	www.sandiego.edu/legal
Information Technology Services	www.sandiego.edu/its
Instructional Design and Training	www.sandiego.edu/idt
Instructional Media Services	www.sandiego.edu/ims
Junk Mail Manager	http://junkmail.sandiego.edu
Streaming Video Server	http://streamer.sandiego.edu
TSC Online	www.sandiego.edu/tsconline
University Policies	www.sandiego.edu/legal/policies
USD Campus Map	www.sandiego.edu/maps
USD Webmail	http://mail.sandiego.edu
Web Services	www.sandiego.edu/web
Wimba	www.sandiego.edu/its/idt/techtools/wimba





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