University of California, Merced
Information Technology
Annual Report on Service Delivery
(FY 2009-2010 – Version 1.2)

- **IT 2.0 (focus on continuing improvements to service, communications, and governance)**
  - New services & support requested by end-users
    - Windows 7 support
    - Macintosh Snow Leopard support
    - iPhone 4 & iPad
    - e-Portfolio Support for students
    - Basic Audio recording documentation using Audacity (requested by Spanish instructors)
    - Departmental Network Storage (increased UCMSTOR space ex. Housing / Recreation)
  - Help Desk & problem resolution
    - DSS-Queue with on-call technician to improve efficiency and efficacy of desktop techs
    - Physical redeployment of technicians to better match needs
  - Documentation (IT web site)
    - Significant expansion of "how to" documentation
      - Windows 7
      - Snow Leopard
      - Linux
      - Mobile devices
      - Wired network troubleshooting in Housing
      - Information Security Awareness Training
    - Expanded clarification on IT recommended/supported configurations
      - Office 2010
      - Windows 7
      - Snow Leopard
    - Copyright Protection
      - New site documenting Higher Education Opportunity Act (HEOA) provisions
      - Revamped Legal File Sharing Alternatives
      - Augmented Illegal File Sharing site
  - Communications
    - IT Town Hall Meeting 11/2009
    - Inaugural pre-IT Town Hall survey
    - Panorama articles (service updates, tech tips, Classroom Technology Support article)
    - Highlight article on Student Computing Services
  - IT Sweeps
    - 132 issues handled
- **Plan and Bring Up Campus Site and Buildings**
  - Brought online:
    - Housing 3 (The Summits)
    - Mondo expansion
    - EECU ATM at Kolligian Library
    - MCEFU ATM at Visitors' Center
  - Preliminary & Continuing Design:

        - Science & Engineering 2
        - Site & Infrastructure 4 (Telecom facility improvements)
        - SSMA
        - SCIF (Stem Cell Instrumentation Foundry)
        - EOC Conference Rooms
- **Build IT Infrastructure & Core Services**
    - Network and network services
        - Extensive RFP process to select new wireless network platform
        - Acquisition of wireless usage and problem determination tool and sensors
        - 348 network switches and 270 wireless access points supported
    - Email
        - Increased capacity of mail processing appliances
        - Enhanced SPAM rejection with Anti-Spoofing and IP Reputation testing
        - Improved rejection of dangerous attachments
    - Calendar
        - Verified support for Apple iPad
        - Verified support for new iOS SyncML client
    - Directory
        - Made cell phone numbers available on an opt-in basis
    - Access & Identity Management
        - Added support for WARN (emergency contact application)
        - Added feed to Connexxus for incorporating names into tickets (system-wide travel application)
        - Implemented Kuali Identity Management (KIM), allowing linkage for Kuali applications (Kuali COEUS in particular)
        - Single Sign-On (SSO)
            - Upgraded CAS to 3.4.2
            - Extended SSO to include:
                - Facilities Link
                - Express (UCLA)
                - Connexxus (external vendor)
                - UC Ready (UCB)
                - Wiki (UCLA)
    - Security
        - Deployed Sentriant intrusion detection appliance at Castle; in conjunction with Campus Sentriant and network re-architecture, significantly enhances coverage
        - Implemented white-listing for outgoing mail servers
        - Provided Information Security Awareness Training to departments
    - Servers
        - Developed strategy for server consolidation and hosting as aging servers are replaced
        - 102 Microsoft Windows servers with 7 virtual machines
        - 81 UNIX servers with 22 virtual machines
        - 13 appliances
        - 14 of these were new or replaced
    - Storage
        - Performed in-depth analysis of back-up architecture and facilities to develop strategy for handling growth
        - Extended Storage Area Network to Castle, allowing access and enhancing back-up capabilities
        - 122 TB total capacity, 45 TB new
- **General User Support**
    - Completed 10365 work orders (10788 in FY08-09, 3.9% decrease)
    - Operations completed 286 Jira tickets (internal work requests)

- Overall decrease in work orders partially due to shift of internal IT requests to Jira, but Help Desk walk-ins increased by 21%
- 35.4% of issues resolved immediately when first reported to Help Desk
- 70.4% of all issues resolved within 3 days (excluding weekends, and including requests that included orders, etc., that would normally take more than 3 days)
- Groups handling work orders by percentage:
    - 45% Help Desk
    - 32% Desktop Support Services
    - 13% IT Operations Center
    - 3% Identify Management Office
    - 3% Classroom and Media Support
    - 2% Instructional Computer Lab Support
    - 2% Web & Portal Applications
    - <1% Other
- Work orders completed by category:
    - 7017 Computing Software
    - 763 Telecommunications Hardware
    - 814 Computing Hardware
    - 572 Network Infrastructure
    - 401 Instructional Technology
    - 520 Identity Management
    - 150 Telecommunications Software
    - 123 Other
    - 5 Room reservation
- 3260 work orders handled by Desktop Support Services:
    - 2239 Computer Software
    - 474 Computer Hardware
    - 321 Mobile Device Hardware
    - 158 Network Infrastructure (including port activation)
    - 52 Mobile Device Software
    - 16 Other
- Performed 287 telephone moves, adds, and changes
- Processed 126 mobile device orders
- Software Licensing
    - Handled 1289 Help Desk tickets (1088 in FY08-09, 15% increase)
    - Responded to 3350 emails related to software - informational requests, procurement and licensing issues. (2019 in FY08-09, 40% increase)
    - Managed licensing for 215software titles (218 in FY08-09, management of 3 moved to Schools)
    - Of these, 7 required price negotiation (no UC or standard academic discount available); 16 required new license agreements
    - Managed site/volume/academic purchase agreements with 59 software providers (up 2 from prior year)
    - Handled $126K of software licensing, leveraging UCOP agreements, volume purchase levels, site licensing, etc., for an effective average discount of 41%
    - Converted 1 software title to bulk-licensing, resulting in an additional estimated cost savings of $14K
- DMCA (copyright violation handling)
    - Researched 182 cease and desist notices of which 89 were traceable

• Web/Portal

- ***Portal***
    - Created test portal for Student Affairs
    - Added new channels:
        - Express
        - Connexxus

        - General
            - Increasing use: averaging 5,698 logins per day
    - ***Web Facilities & Content Management***
        - 20 sites launched within Campus CMS
        - Features added to Campus CMS
            - Shopping cart (Ubercart)
            - Event & constituent management (CVIC)
        - New Sites
            - Urjournal
            - Asucm
            - Sbdc
            - Trustees
            - Studentsfirst
            - gsa-step
            - writingprogram
            - studentlife
            - cast
            - memristor
            - ucsolar
            - orientation
            - era
            - seniors
            - polisci
            - hr
            - health
            - prevent-violence
            - fye
            - senate
- **Academic/Instructional and Related IT Support**
    - **Center for Research on Teaching Excellence (CRTE)**
        - ePortfolio performance improvements
    - **Collaboration and Learning Environment (UCMCROPS)**
        - Upgraded to Sakai 2.6.3
            - Added Evaluation tool
        - 14 ePortfolio sites (9 in 2008-09)
        - 1633 course sites (decrease from prior years due to sections no longer having separate sites)
        - Project sites increased to 391 (314 in FY08-09, 24.5% increase)
    - **Computer labs**
        - Facilities added:
            - SE172 – Engineering Mechatronics Lab - System imaging support
            - 36 additional laptops for School of Natural Sciences – System imaging support
        - Facilities upgraded:
            - Fresno (for University Extension courses)
                - Upgraded 15 computers
                - Created Linux instructional environment
        - Software base (all labs):
            - ARCGIS
            - Pro-E
            - Matlab
            - SPSS
            - Autodesk 3DS Max / Entertainment Suite
        - Managed 9 labs at 3 locations:

        - 1841 class hours in Windows-based Computer Classrooms (2520 in FY08-09)
        - 38 courses Windows-based Computer Classrooms (54 in FY08-09)
        - 74 software packages (51 in FY08-09)
    - Implemented additional Open Access Lab hours based on 2009-2010 ASUCM funding, and created processes to support dual-funded student employment
    - Worked with ASUCM to continue funding additional Open Access Lab hours in 2010-2011
    - Worked with Instructional Space Planning committee to best utilize all campus computer classrooms (Windows & Linux) to maximize the amount of open access hours available for student use
    - Non-instructional computer lab support
        - Housing conference groups (College Summit, and 4H State Leadership conference)
        - Writing Program Summer Institute - online survey
        - Student Affairs departmental admin training
        - Admissions departmental training
        - Admissions FAFSA workshop for applicants
        - Financial Aid FAFSA workshops for continuing/enrolled students
        - Registrar Banner training sessions
        - Registrar MyAudit testing
        - SIBIS meetings / Cognos training
        - Kaplan MCAT testing
        - Student Club workshops (ASME, Delta Gamma)
        - Summer Bridge orientation
        - Orientation registration on Bobcat Day
        - Summer & Spring Orientation events
- ***Classrooms***
    - New/Upgraded facilities
        - Major upgrade to Lakireddy Auditorium sound system
        - Expanded pilot of new "clicker" Audience Response System
            - Instructional - 7 instructors, 10 courses, 1300 students (AY08-09 - 2 faculty and 150 students)
            - Non-instructional - Health Services, Natural Sciences Dean's Office, Violence Prevention Program
        - Added 3 new mobile AV carts to provide DVD/VCRs in classrooms
        - Added Region-Free DVD player for international DVDs
        - Obtained additional document cameras to meet demand
    - Supported 39 classrooms with classroom technology (no change from prior year)
    - Provided technology support to1019 class sections held in those classrooms (1097 in FY08-09, 7.2% decrease)
    - User Documentation and Training
        - Provided personal instructional technology orientation for every instructor during first week of each semester
        - Presented classroom technology overview at SSHA and Natural Science's new instructor orientation events each semester
        - Created marketing flyers to encourage instructors to take advantage of pre-semester one-on-one classroom technology training in their assigned classroom
        - Provided training to officers of recognized student clubs and organizations on proper use of classroom technology for their events in order to reduce impact on instruction

        - Special presentation/training provided to the council of Fraternities and Sororities
    - Maintenance
        - Continued a nightly classroom technology maintenance schedule which included weekly specialized AV testing to ensure proper equipment functionality
        - Reprogrammed four levels of standard lighting scenes in the case study rooms to accommodate faculty requests
        - Finalized the renewal of the AV equipment support RFP
        - Coordinated with the contracted AV equipment support vendor to perform required off-site repairs to correct a common issue on five large Christie projectors in three lecture halls, while limiting impact to instruction
        - Worked with AV equipment support vendor to implement a touchscreen programming solution to reduce projector lock-ups in COB113 that was impacting instruction
        - Provided details and information to the COB building manager and Central Plant, to correct issues with lighting in the large lecture halls, and with a noise emanating from the building HVAC system that were impacting instruction.
        - Coordinated with COB building manager on the repair of the large performance curtains and ADA stair lifts in the Lakireddy Auditorium (COB102)
        - Implemented a temporary touchscreen control system in COB102 to control switching of inputs and outputs in order to bypass a failing AV switching device and to avoid disruption of instruction.
        - Adjusted wireless microphone frequencies in classrooms to avoid possible overlap, and also updated microphone frequency map documentation to represent all new installations in COB102 as well as adjustments to other lecture halls.
        - Created documentation of the basic operation of the new touchscreen controls and soundboard for instructional use in the COB102 control booth after the installation of the upgraded audio system
    - Supported numerous special instructional events (review sessions, CORE class events, rehearsals, Service Learning presentations…)
- **Printing**
    - Continued partnership with ASUCM to provide a $1.75 credit for printing/copying per student per semester. ($6253.01 used in FY09-10)
    - 376,024 sheets printed through IT managed printers (287,064 in FY08-09, 31% increase)
    - Upgrades
        - toddUpgraded UCMPrint server to improve usability of CatCard printers
        - Refreshed all computer room printers
        - Added printer to Valley Terraces computing lab
- **Videoconferencing (hours reported exclude planning and set-up time)**
    - Supported 9 videoconference rooms at 5 locations and an additional 2 mobile videoconference systems on campus
    - Academic (Undergrad, Grad, Research, Thesis) – 409.5 hours (212 in FY08-09, 93% increase)
        - Psychology 206 (UCLA)
        - PHYS 232A (UCB)
        - Stem Cell Journal Club (UCD)
        - Fall 09 QSB 294 (UCM)
        - Fall 09 QSB 291 (UCM)

        - Fall 09 CHEM 291 (UCM)
        - QSB Engineering (UCD)
        - PSY 290 (UCLA)
        - QSB 293 (UCD)
        - Spring QSB (UCM)
        - Spring CHEM (UCM)
        - HLM Course (UCLA)
        - Fall 10 QSB 291 (UCM)
        - Fall 10 CHEM 291 (UCM)
    - Administrative – 83.5 hours (96 in FY08-09, 13% decrease)
        - Academic Senate
        - UC International Leader Council
        - UCM and UCOP Sustainability Meeting (UCOP)
        - EAOP (UCOP)
        - Academic Personnel – NS
        - SSHA Faculty Candidate (London)
        - Max Planck Institute for Marine Microbiology (Germany)
        - Maria Pallavacini (UCD)
        - System wide CIO Meeting
        - British Arctic Survey (London)
        - Mary Miller – COVCA (UCOP)
        - NS Faculty – The Fabric of Protein Aggregation
        - Jane Lawrence (UCOP)
        - Visualizing Venice – (Duke University & Venice)
        - PhD Candidate (Utah State)
    - Capture and Streaming
        - Instructional
            - PSY 140 – Prof. Shadish
            - Podcast pilot (Xserve)
                - 1 class in Spring 2010
                - 2 classes in Summer 2010
        - Non-instructional
            - President Carter
            - Sigma Xi Symposium
            - IT Town Hall
            - Post Employment Benefit
            - Academic Senate
- **Non-Instructional events supported (AV)**
    - 77 total events (100 in FY08-09 23% decrease)
    - Student events listed under Student Support
    - Campus Conferences & Events
        - Bobcat Day
        - Preview Day
        - Orientation (x10)
        - Convocation
        - High School Transfer
        - Dinner with a Scientist
        - Stem Cell Awareness w/M.Pallavacini
        - Health Research Symposium
        - Lorraine Walsh Concert/Recital
        - Shakespeare Performance
        - Keyboard Conversations w/Jeff Siegel
        - Embrace the Arts
        - Leadership Conference

        - UC For You
        - An Evening with Jenni Samuelson
        - Merced Symphony Fall 09
        - Merced Symphony Spring 10
        - Chorale Concert
        - UCM Chorale Spring Concert
        - An Evening of Musical Theater
        - Arts 121A
        - PAA's P-Grad
        - VSA Graduation Ceremony
        - Chicano Commencement
        - UC Presidents Task Force
    - University Relations & Community Events
        - Vital & Alice Pellisier Distinguished Speaker Series
        - President Jimmy Carter
        - Board of Trustees
        - Board of Trustees
        - Spendlove Award Program/Price Announcement
        - Chancellors Associates
        - CTK Memorial
        - Benefit Concert for Norma De la Torre
        - 3rd Annual Legacy Circle Dinner
    - Administrative Meetings & Staff Training
        - Campus Town Hall
        - IT Town Hall

- **Student recruitment, orientation, and support**
    - **Orientation (10 undergraduate sessions)**
        - Updated documents on What Computer to Buy/Bring & Student Computing Resources.
        - Gave presentations to undergraduate students and Q&A for parents
        - Staffed an information table to answer student and parent questions
        - Updated presentation for Students to accommodate new format
        - Updated the translated presentation for the Spanish-speaking parent presentation event
        - Gave new presentation for Spanish speaking parents
        - Provided IT/AV and Computer Lab support for orientation events in more than ten different campus locations
        - Provided representation on the Orientation Planning Committee
    - ***NEW* Student Advising & Registration Events (2 undergraduate sessions)**
        - Provided Computer Lab support for advising and registration events in three computer labs
    - **Student Orientation Registration System**
        - Added custom form fields
    - **Fall Preview Day**
        - Created and staffed IT booth
        - Updated the "Think about I.T. - Questions to Ask Prospective Colleges" handouts in order to educate prospective students on campus technology and to consider how it might impact them in their academic career.
        - Provided IT/AV support for presentation events
    - **Bobcat Day**
        - Created and staffed IT booth
        - Provided IT/AV support for presentation events
    - **Move-in Weekend**
        - Provided an onsite IT Help Desk presence in the Housing area for laptop wireless configuration, anti-virus software installation, UCMPRINT setup, and other residence networking issues

        - 2 locations on Friday
        - 1 location on Saturday/Sunday
        - Coordination with AT&T for student phones
        - Provided a mobile computer lab (6 laptops) to support Financial Aid
    - **ASUCM**
        - Supported student elections via CROPS
        - Completed design and launched web site
    - **Student Media**
        - Deployed technology integrating The Claw (new feature film channel) into the CATV system
        - Assisted in creation of Bobcat Radio web site
        - Consulted with The Prodigy for adding 1TB of storage
    - **Student Events**
        - Implemented a new student-staffed Event Support service based primarily on funding from ASUCM 2009-2010 budget to support student events
            - 2 student employees
            - Created processes, provided training, created documentation
            - Regular attendance at Inter-Club Council meetings
            - Trained employees were also used to support non-student events off of the IT budget
        - Worked with ASUCM to continue, and increase, funding of IT student staffing for Student Event support in their 2010-2011 budget (3 student employees)
        - Student Life & Student Club Events supported (primarily AV)
            - Barrio Fiesta
            - John Ziegler (speaker)
            - Hmong Student Association
            - Poetry Jam
            - Persian Student Association
            - Chris Horner
            - Rise Up
            - Theater Troupe - Here and Now
            - Night of Magic 2010
            - Hmong Student Association
            - Black Forum
            - Debut Tryouts
            - Pura Cultura Event
            - Debut Tryouts II
            - Debut Tryouts II Final
            - VSA Cultural Event
            - Oratorical Event
            - Debut II
            - Women's History Month Speaker
            - H.S. A. Talent Night
            - H.S.A. Auditions
            - Asian Fest 2010
            - Pride Week
            - ASUCM Budget Hearing
            - Bobcat Day
            - PCN Show 1
            - PCN Show 2
            - Open Mic Night by HHM
            - Spoken Word Performance
            - Intro Dance Performance

        - Music Recital

- **Schools, Research, and Centers**
    - **Engineering**
        - Provided license management via license server for ARCGIS, Matlab, Ansys Fluent, COMSOL, Pro-E, and ENVI
        - Provided imaging support for Engineering Mechatronics Lab (SE172)
    - **Natural Sciences**
        - Provided imaging support for 48 laptops for instructional labs
        - Provided license management via license server for Matlab and Mathematica
    - **Sponsored Project Office**
        - Launched electronic proposal drop box (SPOEDB 1.0)
        - Developed version with additional features (SPOEDB 1.1)
        - Continued deployment of Kuali Coeus and Rice environments
    - **Writing Program**
        - ePortfolio performance improvements
        - Installed WordPress facility
- **Administrative/Departmental IT**
    - **Student Information System and related applications for departments**
        - ***General SIS work:***
            - Fulfilled approximately 704 user service requests (680 in FY 08-09, 3.5% increase)
            - Performed major Banner upgrade from version 7.5 to 8.3 while supporting existing application needs. This was a 9-month overall effort comprised of the following:
                - Data conversion
                - Approximately 60 upgrades
                - Migration and testing of over 160+ interfaces and UC Merced specific customizations
            - Installed and completed testing of Runner Technologies hygiene software for batch address clean-up in Banner
            - Completed business rules related to Address, Phone, and email types of Banner (in partnership with business users)
            - Completed CAS upgrade with Banner Self Service
            - Enhanced interface from Banner to IDM
            - Upgraded Banner Oracle database from version 10.2.0.3 to 10.20..4
            - Installed new 'Learn [LRN]' environment for development purposes (in addition to TEST environment for user acceptance testing)
        - ***Undergraduate Admissions***
            - Implemented Fall 2009 and Spring 2010 Admissions cycle UCOP changes to CPLOAD
            - Enhanced 'automatic' admit process based on business needs
            - Implemented Student Multiple Ethnicity reporting to meet Federal requirements
            - Updated Applicant Checklist in portal
            - Completed specifications and began adaptation of the UC Davis undergraduate applicant review tool (AARO)
        - ***Financial Aid***
            - Completed 4 regulatory upgrades
            - Integrated Financial Aid items into Applicant Checklist
        - ***Registrar***
            - Implemented Degree Audit Reporting System 'myAudit' phase II with students as our audience in October 2009 (in partnership with Registrar)

- Implemented automated process for loading chemistry and math test scores for Natural Sciences; thus resulting in efficiency, timeliness, and data accuracy
- Implemented improved process for gathering and maintaining student emergency contact information (in partnership with Registrar)
- Enhanced 3rd week Census and End of Term enrollment UCOP report
- Enhanced Banner custom views for UCMCROPS interface
- Enhanced UCOP Registrants file process to be more efficient
- Enhanced Statement of Legal Residence website
- Enhanced Official transcript for under graduates
- Enhanced customized Online Course Schedule on Banner Self-Service
- Supported implementation of Banner system rules to enable automatic validation of curriculum processing; thus resulting in process efficiency and improved data integrity
- Deployed Grade Submission reminders
- Developed grade management facility, allowing Registrar to track status of submissions

▪ ***Student Business Accounting & Billing***
- Enhanced the Health Insurance Waivers process
- Implemented changes to support new GSHIP program for 10/11
- Worked with business user to streamline processes by configuring batch jobs to execute in Banner custom tool called 'chainjobs'

▪ ***Graduate Studies***
- Implemented enhancements to support the Graduate Online application process for Fall 2010
- Enhanced and integrated key Graduate School Application processes into the portal
- Enabled data collection and UCOP/Regulatory reporting capabilities for new Race/Ethnicity values
- Implemented the online SIR process
- Enhanced GRE score load process
- Enhanced the official transcripts
- Developed "working transcript" for advisors and faculty

▪ ***Office of International Affairs***
- Completed implementation of fsaATLAS for baseline functionality (in partnership with business users)
- Upgraded fsaATLAS from 7.4 to 7.5
- Installed Mariner Filemaker Pro environment

▪ ***Other***
- Created test portal with different user types

o **Business Intelligence**
- ***Operational Data Store (ODS)***
  - Completed ODS upgrade from Version 3to version 8.1
  - Set up a complete test environment for ODS and Banner
  - Improved and enhanced custom data interfaces for the School of Engineering's Graduate Admissions application review system
  - Implemented new data feeds from Banner for the first phase of the Data Warehouse
  - Completed implementation of a new feed from UCLA's QDB system into ODS
- ***Cognos Tool***
  - Completed upgrades for Cognos test and production environments from version 8.4 and 8.3 to version 8.4.1; this

resulted in having a stable and consistent test and production environments
        - Completed performance tuning for production environment
    - ***Crystal Reports to Cognos Migration***
        - Began monthly facilitation of Crystal to Cognos migration workgroup effective February 2010
        - As of June 2010, 60% of all reports have been converted from Crystal to Cognos tool
    - ***Data Warehouse***
        - Developed prototype for first phase of Undergraduate Admissions Business Intelligence Framework (Cognos)
- **Other Departments & Applications**
    - ***Academic Personnel***
        - Installed Digital Measures
    - ***Bookstore***
        - Supported vendor in major upgrade of POS system
    - ***CatCard Office***
        - Refreshed desktops and software
    - ***Communications***
        - Deployed Campus Events Calendar
    - ***Dining***
        - Major upgrade of POS system
    - ***Early Childhood Education Center***
        - Deployed security cameras
    - ***Facilities***
        - Major upgrade of ALC system including new servers (physical & virtual), databases, and storage networking
    - ***Great Valley Center***
        - Migrated email and calendaring to UC Merced facilities
        - Proposed strategy for enhanced Internet connectivity
        - Enhanced web site with shopping cart and event & constituent management
    - ***Library***
        - Deployed Campus Reservation System for study rooms et al
    - ***Police/Dispatch***
        - Upgrade disk storage from 3 to 9 TB
    - ***Recreation***
        - Assisted in selection of new application & supporting server; supported actual installation
        - Supported actual installation