

**DIVISION: INFORMATION TECHNOLOGY
BUDGET PRESENTATION**

Fiscal Year 2007 - 2008

Introduction

Division Mission Statement:

Information Technology ensures a stable, reliable, secure IT infrastructure that meets the teaching, learning, research, service, and administrative needs of the CSUCI community and provides value-added services conducive to a 21st century campus. IT operates in a collaborative, transparent, and responsive manner.

Division Goals:

Information Technology is organized into four groups: User Services, Infrastructure, Application Development, and Web Services. These highly collaborative groups provide comprehensive IT services to the campus and strive to meet the following divisional goals:

- Enable the teaching, learning, research and public service mission of the university with technology
- Apply Enterprise Architecting and best practices in management resources to constrain future costs
- Provide uninterrupted network, telecommunications, server, and email services
- Secure the university network and data
- Hire, train, and retain exceptional staff
- Operate in a collaborative, transparent, and responsive manner
- Deliver world class customer service
- Embrace continual quality improvement
- Comply with mandates and laws

Accomplishments:

During FY06-07, IT accomplished more than can be listed in this narrative. The following highlights a selection of accomplishments from each of our groups: User Services, Web Services, Application Development, Infrastructure and IT Administration.

The ***User Services Group*** provides services directly to CI users. The team answers the Help Desk phones and email; resolves user computer problems; provides training; and ensures that all classroom and computer labs are operating correctly. User services programs include Mobile Campus student laptop checkouts; PC standards and purchases; software and hardware asset management; and new technology testing. The staff consists of a manager, four desktop support

positions and one Help Desk support position. One ITC position was transferred from Academic Affairs to IT, with a budget allocation. Highlighted accomplishments are:

- Increased Academic Affairs desktop support personnel from 1 to 2.5 positions
- Installed computers and projectors in Bell Tower 1st floor classrooms
- Started a Student Technology Assistant training program
- Implemented Mobile Campus, a student laptop checkout program, to compensate for lack of public computer lab space
- Answered an average of 50 phone calls per day
- Opened an average of 1025 work orders per month
- Supported 486 classroom and lab computers
- Supported 702 faculty and staff computers (not counting laptops that we also support)
- Fulfilled an average of 241 A/V equipment requests per month
- Replaced the 911 Dispatch and ID Works computers and printer

The **Web Services Group** is responsible for the content and operation of the www.csuci.edu website, development of web applications, and ensuring all web based resources are accessible and 508 compliant. The Web Services Group offers training to all faculty and staff on a regular basis so that content can be easily updated and kept current. There are approximately 105,000 pages on the university web servers. The staff consists of two people.

- Created on-line web applications and databases. Examples include:
 - Student Housing Online Application and Database
 - Scholarship Online Application & Database
 - Credential Database
- Created on-line Event Registration and Membership Systems. Examples include:
 - Alumni membership
 - Alumni volunteer registration
 - Alumni e-newsletter
 - B&TP Membership
 - B&TP Leadership dinner
- Created new websites. Examples include:
 - ETS TRIO Web Site and Application Forms
 - Veterans Web Site
 - Communication Web site
 - UPACC Website
- Created the English Exit Survey and the Service Learning Community Partners Survey
- Converted and posted the updated Catalog, Schedule of Classes, and CSUCI Current into a web format
- Produced and delivered 14 web workshops and designed 2 new workshops
- Tested web applications for 508 Accessibility compliance and worked with vendors to redress problems
- Evaluated our web pages for 508 Accessibility compliance
- Provide ongoing support for eAdvocacy initiative

- Provide ongoing support to address Chancellor's Office Accessible Technology Initiative coded memorandum

The ***Applications Development Group*** is responsible for implementing CMS (the CSU-wide Common Management System, originally PeopleSoft, often simply referred to Oracle today), report generation, and integration of third party products. The staff consists of a Director, five programmers, two data base administrators, and a security administrator. The security administrator is a position that was funded from the incremental base allocation that IT received last summer and has been reported as an additional position to our starting base of FTE.

- Commenced upgrade of HR/SA Oracle 8.0 to version 8.9
- Maintained current production environment
- Presented at the annual nationwide Oracle conference
- Designed or redesigned Business Processes for different units and committees
- Created a data mart for enrollment services and planned for a student records data mart
- Integrated CMS with Hobsons, an Admissions Office recruitment software.

The ***Infrastructure Group*** ensures that all the components comprising the network, data storage, and phone systems are operating at optimal levels. The Infrastructure Group develops strategies to ensure that today's technology joins seamlessly with tomorrow's technology, while constraining future costs. The staff consists of a manager, three network specialists and three data center specialists.

- Added a Gigabit connection to campus for faster connection from campus to the Internet
- Added load balancing on web servers to increase speed of page loading to users
- Added redundancy to email system
- Added remote administration to remotely control equipment in data closets
- Added wireless network access points across the campus and dorms for wider, more reliable service
- Changed vendors or technologies to reduce costs
- Changed virus protection vendor to include students and home use in the license agreement
- Deployed security tools to monitor network
- Implemented a Streaming Media Server for Library Media Services
- Implemented Network Management System
- Improved Teale access for users
- Increased data storage by 5 Terabytes
- Installed equipment and network for Amgen Grant
- Located and redressed network bottlenecks across campus
- Planned telecomm and network infrastructure in Broome Library, Santa Cruz Village, BT East, Police Dispatch remodel and upgrades in HUB, Anacapa Village, Bell Tower, and Health Services
- Updated infrastructure components for new Daylight Savings time date change
- Upgraded and expanded our VoIP phone system

IT administration handles all HR, budgeting, purchasing, and strategic planning. The staff consists of the CIO, an Administrative Analyst and 35% of a budget support person who is shared with Operations, Planning and Consulting. These budget responsibilities are currently being absorbed and will be totally within IT in the future. The administrative group as well as other IT staff participated and lead many activities during the first part of 2006-07, some of which include:

- Attended campus wide meetings such as UPACC, EMSSC, President's Council, Assessment Council, Strategic Budget Committee, CMS Steering Committee, Events Committee
- Began moving budget responsibilities from OPC into IT
- Commenced dual reporting to Provost and VP, Finance and Administration
- Completed review of all IT positions and ensured staff were properly classified and salaried
- Monitoring compliance with federal and state laws and Chancellor's Office mandates
- Formed the IT Strategy Council and held IT Town Hall meetings
- Hired all vacant positions and retained staff
- Implemented proven IT management strategies and quality improvement processes
- Negotiated more favorable pricing with vendors
- Participated in Chancellor's Office Technology initiatives such as Network Technology Alliance, Systems Technology Alliance, Security Training, ITAC, CATS, TUG, and CMS Project Director meetings
- Prepared for WASC reports and site visits
- Responded to OCR complaints
- Simplified the IT budget process

To put the IT accomplishments into perspective, the following metrics are provided, based upon averages during calendar year 2006 unless otherwise noted:

Fact	Number	Responsible Group
Help Desk Calls		
Calls/ work orders closed on first day	576/month	User Services
Total Work Orders Opened	1086/month	
Classroom Computers (Jan 2007)	486	User Services
Staff/Faculty Computers (Jan 2007)	630	User Services
Server Uptime	100%	Infrastructure
Number of Email Accounts	1,402/month	Infrastructure
Number of Email Processed	115,222/month	Infrastructure
Number of Network Devices	2,603/month	Infrastructure
Number of CMS Closed Work Orders	165/month	Application Development
Number of hits to www.csuci.edu	4,313,921/month	Web Services
Number of pages on www.csuci.edu	5,338/month	Web Services
Number of Web Pages on www.csuci.edu that are Section 508 Compliant	95%	Web Services
Number of Classroom A/V Requests	241/month	User Services

Summary

Current Request:

The IT budget request is focused on 1) constraining future data center costs, 2) implementation of Chancellor's Office directives, 3) wresting value from CMS, 4) increasing Help Desk capacity and 5) other note worthy items. This summary will discuss these and other noteworthy budget items.

IT asked for about \$3 million in one time costs in FY06-07. \$400,000 was allotted. There are still many one-time costs that need funding. We've included a brief description of these items at the end of this section.

Highlights:

1. Constraining Future Data Center Costs – The Server Consolidation Project

The *data center* consists of more than 90 servers that perform a variety of functions for users and departments across the campus and is our fastest growing service area. Each server consumes electricity; requires an uninterruptible power supply; upgrades and patches to ward off security threats; tape back ups that are stored off site; and each needs replacement every 3-5 years.

Examples of services provided by the data center are email, Blackberry service, VoIP service, Raisers Edge, campus web pages, faculty web pages, OPC project management database software, asset management database software, mathematics teaching software, and print services. The servers also store files for users and departments. At the time of this writing, departments outside of IT have already identified eight new servers to come online in FY07-08. and we expect more servers will be purchased. IT proposes to use server virtualization as a means to reduce the number of servers on our data center by 45% and realize cost savings from slower growth, lower utility costs, and human capital costs. The consolidation of servers is possible by deploying virtualization software called VMware. Moving to VMware allows IT to use leapfrog technology. Leapfrog technology allows us to skip deployment of older technologies and rapidly adopt and exploit cutting edge technologies, like server virtualization.

The Total Cost of Ownership (TCO) includes the initial purchase price plus the cost of ongoing maintenance contracts, utility consumption, backups and off site tape storage, uninterrupted power supply (UPS) and human capital to patch, and upgrade server hardware and application software. The cost to bring a new server into the data center is approximately \$11,000 in one time costs and \$1,770 per year in ongoing maintenance costs. Typically, the initial purchase price includes a 3 or 4 year service contract which provides technical support from the vendor so that server failures can be quickly repaired with no or minimal service disruption to the user. A server reaches End of Life (EOL) at the end of the service contract period. The cost to keep EOL servers in production is very expensive in real dollars, IT staff time, and loss of user productivity when equipment failure occurs. Table 1 illustrates the cost to keep our current EOL servers in production.

	FY0607	FY0708	FY0809	FY0910	Total
EOL Maintenance Contract	\$26,017	\$54,063	\$50,165	\$18,960	\$149,205

Table 1. Cost to purchase maintenance agreements on EOL servers.

IT would spend \$149K over 4 years on maintenance contracts for equipment that is past its end of life. Instead, we could lease the equipment and spend \$181K on lease payments over 4 years

	08/09	09/10	10/11	11/12	Total
4 Year Lease Payments	\$45,273	\$45,273	\$45,273	\$45,273	\$181,092

Table 2. Cost to lease new servers for 4 years.

There are several benefits to leasing equipment for the server consolidation project

- TCO is reflected in annual base budget as opposed to periodic large one-time costs
- At the end of lease, EOL equipment is traded for new equipment
- Monetary savings can be redirected to areas that produce a high rate of return, such as desktop support
- Data center growth constraint delays the need for additional server support positions
- Opportunity to use leapfrog technology eliminates high transition costs to newer proven technology, i.e., server virtualization

2. Implementation of Chancellor's Office Directives

The *CO directives* are numerous and require implementation of new technologies and programs. Compliance requires both staff training and consultants. The Chancellor's Office has mandated several technologies the campus must adopt and deploy. These include the following:

1. New firewall product and vendor – Cisco to Juniper
2. New wireless network product and vendor – Cisco to Aruba
3. Identity Management Infrastructure – Sun Identity Management Suite
4. Data Warehouse Project
5. Compliance with Department of Justice CALEA legislation – making our network traffic “wiretap ready”
6. Accessible Technology Initiative – Coded Memorandum
7. eAdvocacy – Electronic lobby and fundraising technology

The budget implications of directives 1-7 are the following:

1. The adoption of *new firewall product and vendor* necessitates training and travel expenses. The CO will provide the hardware. The firewall is our first line of defense in securing our network and is located between our campus network and the Internet. Any problems with the firewall will affect access to the Internet and a range of network-based services from email to Blackboard to www.csuci.edu. On-the-job training will not suffice for learning the firewall product because mistakes configuring the firewall will impact user access to the Internet.

2. The adoption of a ***new wireless product and vendor*** necessitates training and travel expenses. The Chancellor's Office will provide funding from some of the access points, but we expect that we will also need provide some funding. As reliance on our wireless network grows, high availability of the wireless network becomes critical. For example, Mobile Campus, the laptop checkout program and all of Anacapa and Santa Cruz Villages rely on the wireless network to access the campus network. On-the-job training will not suffice for learning the wireless network product because mistakes configuring the wireless network will impact user access to the campus network and the Internet.
3. The implementation of an ***Identity Management Infrastructure*** requires product purchase, training, travel, and consulting expenses. The cost of the product is \$15,000 for 5 years and consulting expenses are \$30,000. IT staff will need to travel for training so they can support the product. Consulting services are needed to guide IT staff through a very technical and complex implementation. The Chancellor's Office is requiring campuses to supply user ID information to a central LDAP v5 database. The CO hired a consulting firm to make recommendations and the Sun Identity Management Suite meets all the criteria. In addition to compliance with CO *CSUCI will accrue direct benefits* from implementation of an
4. Identity Management Infrastructure in the following ways:
 - delivery of single sign-on eliminating multiple passwords
 - compliance with security best practices through timely addition and deletion of user accounts (provision/deprovision)
 - integrate third party products is easier (Hobsons, Blackboard, etc)
 - creation of a meta directory to integrate our Windows, Linux, Unix, and Apple OS systems (interoperability)
5. The ***Data Warehouse Project*** is a reoccurring annual expense that we are currently estimating at \$200,000. The Data Warehouse will provide easier access to CMS data for report creation. The Data Warehouse will allow users to access CSU created reports and more easily create reports relevant to our local users needs.
6. The CSU has directed that each campus comply with ***CALEA***. Congress passed the Communications Assistance for Law Enforcement Act of 1994 (CALEA), Pub. L. No. 103-414, 108 Stat. 4279. The law defines the existing statutory obligation of telecommunications carriers to assist law enforcement in executing electronic surveillance pursuant to court order or other lawful authorization and requires carriers to design or modify their systems to ensure that lawfully authorized electronic surveillance can be performed. (<http://www.askcalea.net/faqs.html>) What this means for CI, is that IT must purchase and install equipment that makes our network "wiretap ready" 24x7x365 in case the Department of Justice ever decide to listen to our network traffic. IT is requesting one time money to purchase the necessary technology and training required to comply with CALEA. Further CALEA information can be found at www.askcalea.net.
7. The ***Accessible Technology Initiative (ATI) coded memo*** requires that web pages and instructional material be compliant with Section 508 Accessibility standards. Currently, only one for the four CSUCI web servers is 508 compliant. www.csuci.edu is between 96-98% 508 compliant and pages on the other three web servers range from 3% - 58%

compliant. There are approximately 105,000 web pages that must be evaluated for possible retrofit and Web Services has two people to perform the work. We believe students can be trained to do much of the retrofit work and the IT budget has increased the request for student technology assistants to help comply with the ATI.

8. *eAdvocacy* is a program in the Division of Advancement that requires support from the Web Services team. eAdvocacy uses email to send urgent action requests to people who can lobby for CSU and CSUCI favorable state and federal legislation. This is similar to the way that moveon.org works. Web services staff time is estimated to be 20-40 hours per month. This time demand will have a noticeable impact on the two person web staff. The IT budget has increased the request for student technology assistants to help offset the staff time needed for eAdvocacy.

3. Wrestling Value from CMS

Wresting value from *CMS* is labor intensive. Value is realized when meaningful information is extracted from CMS to meet user needs. CMS is very good at facilitating data entry but not very good at reporting. IT is asking for three Analyst Programmer positions to create reports and to develop on-line applications as a means to move data in and out of CMS. The CSU has invested tens of millions of dollars into the CMS project and is the only enterprise reporting system that our campus has ever had campus and, as a result, our Oracle environment is quite robust. It is time to begin wresting value from the system and our extensive investment in it by facilitating information output. In addition, WASC was clear that the university needs to make data more available for decision making. IT proposes to do so by creating new positions dedicated to report generation and web development.

Report generation, system maintenance

There is no dispute that getting information out of CMS is more difficult than inputting data and requires the expertise of programming staff. Of the five Oracle programmers, there are four expert level accounting for approximately 28% of IT salary costs. These highly skilled analyst programmers (as well as the less senior programmer analysts spend most all of their time producing routine reports, providing mandatory support and performing routine maintenance. We have squeezed in a few development and implementation projects (Hobsons, R25, degree audit), but we've accomplished that by assigning even more work with a greater time commitment of the programmers. Some of the work the experts are doing could be performed by less senior individuals. However, everyone is working far beyond their personal capacity and need help. In addition, this is an inefficient and costly use of IT human resources because the expert level programmers often work below their skill level and higher priority and pay back items that CMS can deliver are delayed. This can and must be redressed. To do so, IT is requesting two Analyst Programmer positions. We anticipate hiring foundation or career level programmers that will take on the report and maintenance functions, freeing up experienced programmers to work on the backlog of user customization requests. The realignment of work will also facilitate retention of our senior programming staff because their work will be more challenging and rewarding.

Web development

A common means for universities to retrieve data from and enter data into Oracle is through a Portal. A Portal allows students to complete all University business online. Students can add/drop classes, view transcripts, pay bills, order books, etc without having to come to campus. Faculty can enter grades, access transcripts, download email addresses and class rosters, etc. Advisors can view student transcripts and current class enrollment. The Portal will provide integration of Blackboard, ePortfolio, and 3rd party products and services like credit card payments, Health Services, dining dollars, career services, and the bookstore into one application, with a CI branded look and feel, that users will enjoy using. Creation of a Portal is an extremely large project and the 3rd programmer analyst that we are requesting is a Web Developer position to create a Portal prototype by the end of FY 07-08.

4. Increasing Help Desk Capacity

The IT Help Desk performs several functions for the university. The Help Desk staff responds to requests for help that come via phone call, email, and in person; resolves problems with classroom and lab technology; delivers A/V carts; receives goods; and creates work orders. The IT Help Desk is staffed with one FT staff and several students. The IT Help Desk hours are 7:30 a.m. – 10:00 p.m. One person cannot cover these hours, so after 7 p.m. and on Saturday, students man the Help Desk. However, there are certain tasks only a staff member may perform, like resetting passwords, so user requests for help cannot always be met when students are manning the Help Desk. To offset the lack of Help Desk staff, IT has been diverting desktop support staff from completing work orders to man the Help Desk from 8:00 a.m. until 7:00 p.m. on week days,

The university has two types of computing, commodity and value-added. Commodity computing refers to computers found mainly in classrooms and labs. These are computers that present a standard desktop environment to users and are returned to a standard desktop when the user logs off. Value-added computing refers to computers found mainly in offices and research labs. These computers are unique to the user and, more often than not, are not shared. Maintenance of commodity computers usually requires simple and routine re-imaging of the computer. Entry-level technology staff and students can do this work. Value-added computing, on the other hand, requires skilled technicians to solve problems because problems are more complex. When desktop support staff are assigned to the Help Desk, response to problems in the value-added computing environment is impeded. This leads to loss of productivity among and increased frustration for our valuable faculty and staff.

There are approximately 800 commodity computers on campus, including the 350+ computers that will be installed in the Broome Library, and currently there is only one Help Desk staff member and several students to support all of them. We do try to keep 3 students on the desk at all times. There are approximately 700 faculty and staff value-added computers and there are 5 staff members to support them. We need two new Help Desk staff positions to support commodity computing and to provide service during Help Desk hours thus allowing the desktop support staff to focus on serving the value-added computing environment. Chart 1 below highlights the increase in work order volume over a one year period. We expect that number to grow in 2007 as we add more computers, hire more faculty and staff, enroll more students, and purchase new technologies.

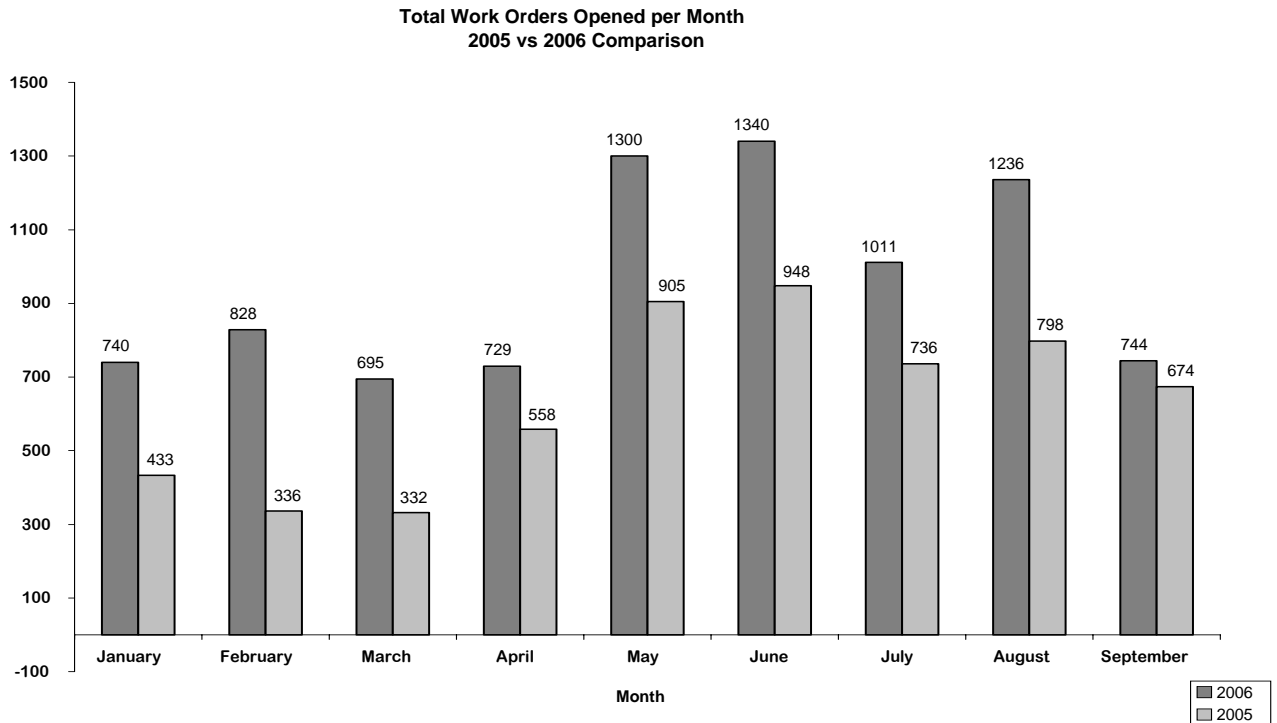


Chart 1. Comparison of work order volume 2005 - 2006

Finally, the Help Desk receives orders for A/V equipment and carts and is responsible for timely delivery and pick up of the equipment and carts. The number of deliveries is shown in Chart 2. Although projectors and computers were installed in the BT 1st floor classrooms, requests for A/V delivery services continued.

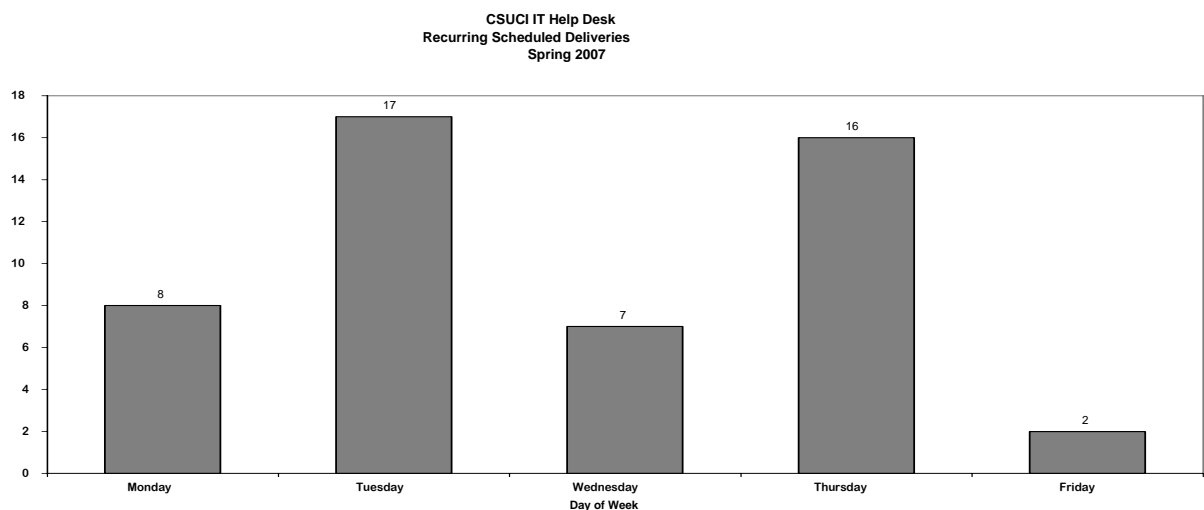


Chart 2. A/V cart deliveries after installation of projectors/computer in BT 1st floor classrooms

5. Other noteworthy IT Budget Items

In addition to the three foci noted above, ***other noteworthy IT budget*** items include the increase in maintenance costs and one time costs.

The IT maintenance budget has grown significantly. The Chancellor's Office has mandated that each campus take part in the CMS data warehouse initiative and the cost to Channel Islands while not finalized is estimated at \$200,000 per year. A contributing factor is the inclusion of maintenance costs for software applications from across campus. At the end of FY05-06, many departments purchased software applications that require ongoing maintenance costs and these are reflected in the IT Maintenance budget. We are concerned that departments will again purchase significant software as FY 06-07 closes. Those maintenance costs are not reflected in the FY07-08 budget request. The only costs we've included are the ones that we know about and the estimate for the data warehouse.

One Time Costs

One-time costs are not included in the IT budget request; however there is a need to fund these. The one-time costs are currently estimated at approximately \$1.8 million. In FY06-07, IT requested more than \$3 million in one time-money and received \$400,000. IT is reducing the request for one-time funding for several reasons. We dropped implementation of disaster recovery and instead are going to produce a 3-tier plan for implementation in FY08-09. IT is substituting less expensive technologies and scaling back implementation of larger projects. We saved money by scaling back the student laptop checkout program. There were a couple of projects we just dropped because there was no hope of funding them in the near future. Some examples of projects IT is planning on that require one-time money include: IT needs to *expand the capacity of the Voice over IP phone and voice mail system*. The growth in user accounts is straining the servers and storage. The phone system is one of the university's basic services and IT is concerned that demand is outstripping capacity. Our Storage Area Network is an array of hard disks that stores most of the campus data. It is efficient but expensive. IT proposes to add *tertiary storage* to our SAN so that older email and files, infrequently used, can be stored on less expensive disk storage. The users will not experience any difference in service level, but future IT costs will be significantly constrained. Tertiary storage will also allow IT to comply with new legislation regarding discovery of electronic documents. Users have asked for *Virtual Private Network* (VPN) technology to allow access to services currently available while on campus. For example, users would like to access the files on their H: drives or department share drives from off campus. IT proposes to purchase a web based VPN product to provide staff and students computing services they require when off campus. IT needs to strengthen *network security*, especially on the wireless network. Currently, our wireless network lacks basic security and our wired network is only partially protected. Finally, IT needs to *expand the data center* to accommodate the demand for new services. The amount of money needed for this project will decrease significantly if the server consolidation project is funded.

Summary of new personnel requested

In the FY07-08 budget, there is a request for seven new positions. They are two Analyst/Programmers (Foundation or Career), a Web Developer, two Equipment Specialists (Help Desk), CMS security position and an Information Security Officer.

Future Needs

Personnel

Over the next three years, IT will need to add more positions to meet increased demands for desktop support, Web Services, CMS programming, Web Development, Infrastructure, and Administrative Services.

When all planned classrooms, labs, and office spaces come online, technology support will be required. Support of these additional resources will require three more desktop support and Help Desk positions over the next five years. These positions will support both commodity and value added computing.

The two person Web Services group cannot keep up with the current demand, let alone future demand. We anticipate that we will need two new positions over the next 3 years in the Web Services group to manage 508 Compliance, development of web pages and small applications, and media arts.

CMS upgrades are planned for the foreseeable future, including adoption of Fusion, a new product that will replace CMS. Every upgrade requires support of the current environment while bringing a new environment online. As the number of CMS customizations grows, so will the complexity of upgrades. Customizations must be reprogrammed when there is an upgrade and is a labor-intensive task. We will need six more programmers over the next five years to accomplish all required upgrades, maintain production support, and create customizations identified by the campus community.

Demand for web based applications will grow as the Portal becomes central to users and new features are requested. As the Portal emerges as the mechanism by which users will conduct university business, the demand for Portal based services will grow. IT predicts that most requests for Portal based applications will come from Academic Affairs as Academic Technology evolves and becomes indispensable to teaching and learning. An example is the adoption of ePortfolio technology as a mainstream teaching and learning tool. IT will need two additional Web Developer positions over the next four years.

The ongoing build out of the physical plant requires the IT infrastructure group to design an ever-expanding data and telecommunications grid. This activity requires a dedicated infrastructure design/project manager to ensure the entire network infrastructure planning is integrated, with an eye on future cost constraints. As the data and telecommunications network is expanded, it will need to be managed. We anticipate a need for two additional network analyst positions over the next three years. Our data center growth continues and the amount of data that requires storage, retrieval, and archiving is growing exponentially. Industry benchmarks indicate that the amount of data storage increases by 150% every 12 months and CI history proves that the benchmark is accurate. We anticipate a need to hire one more Systems Administrator over the next three years. However, if the server consolidation project is not approved, there will be a need to hire two more System Administrators over the next four years.

IT administration foresees a need to hire three positions over the next 4 years. The positions are a Project Manager, an Enterprise Architect, and a clerical worker. The Project Manager will

coordinate and manage all the IT projects and manage vendor relationships. The Enterprise Architect contains future costs and eliminates waste by ensuring that all software and hardware will interact in a seamless manner with minimal complexity. A clerical position is needed to manage maintenance agreements and contracts, asset inventories, shipping and receiving, and other like tasks.

IT foresees a need to create an Academic Technology group that will support classrooms and labs; research; and teaching and learning technologies. This group will require a director or manager and three full time staff members. A main task for this group is to work directly with faculty identification and support of teaching and research technology.

When the University is fully built out at 15,000 students, IT anticipates a staff numbering between 75 and 85 employees. The hiring curve is steeper in the near term because building an IT infrastructure is more labor intensive than maintaining a mature infrastructure.

Service Group	Staff Needed	Time Frame
Desktop Support	3	5 years
Web Services	2	3 years
Oracle programmers	6	5 years
Web Development	2	4 years
Infrastructure	3	3 years
Administrative Services	4	4 years

Table 3. Future IT Staffing

Facilities

The IT needs for office space are the same as the rest of campus. The needs we envision over the next three years are the following:

- IT will require more office space to accommodate new employees. The Applications Development group is moving into the Broome Library, however, it will outgrow this space in a couple of years. It is advantageous to co-locate the CMS programmers and Web Developers because the work they perform is interdependent. We hope to move the teaching labs from Ojai Hall to another location and convert the teaching labs into office space.
- IT needs to finish Data Center. The two biggest costs are the installation of expanded electrical capacity and air conditioning.
- As the campus expands, IT would like to open Satellite Stations (Help Desks) on the South and North Quads. The main Help Desk is in the Broome Library, a long walk to get a password reset or a wireless card working. Satellite Stations will bring IT to the users. Each Satellite Station should be able to house three staff.
- IT wants to embed the desktop support team near the users. To achieve that goal, there will be a need for desktop support staff offices in various buildings on campus. These offices should be geographically dispersed.

Other

The University needs a robust, funded Disaster Recovery Plan. When planning for the Avian Flu Pandemic, units and departments across campus submitted business continuity requirements that depended upon IT services. However, IT does not have funding to execute a true 3-tier disaster recovery strategy. The costs for disaster recovery increase as the scope of the disaster increases and the amount of allowable downtime decreases. A 3-tier disaster recovery plan includes the following:

- Ojai Hall is unusable
- The campus is unusable
- The region is unusable

Enrollment Growth Impact

Every area in IT is affected by our projected growth. Every campus member, present and past, has an electronic identity that requires resources and management. As the campus adds departments and units, as it moves toward capturing students from cradle to grave, as it expands fundraising and lobbying, as new majors and courses are added, as phones and computers are added, IT is impacted. At some point, IT reaches a tipping point and we have to resize our foundation to support growth. This resizing of our foundation will require substantial monetary resources. At this point in time, if our growth rate holds steady, IT anticipates the need for a major restructuring of the infrastructure in approximately 3 years or FY10-11

UPACC Strategic Priority

The IT budget addresses UPACC Strategic Priorities in the following ways.

- Accessibility – Our request for a Web Developer and Help Desk personnel, as well as our training budget, enable IT staff to acquire necessary skills and deliver services. Together, these resources will allow IT to respond to the ATI Coded Memo requiring redress of existing technologies and prevention of future problems. IT has already expended significant resources to address 508 Accessibility, and we have learned it is far less costly to prevent problems than to fix problems.
- Administrative Systems/Web development/IT – The entire IT budget details what is necessary in the upcoming fiscal year to provide the tools that result in data driven decisions, maintain and upgrade CMS, develop a campus portal, staff the Help Desk, and manage commodity computing.
- Student Retention – IT believes that delivery of expected technologies and development of a portal will positively impact student retention. First, students expect a certain level of technology, like wireless network, laptop checkout programs, on-line courses, and a robust web site. They will go to schools where this expectation is met. Second, the more services that are moved online, the more time staff has to focus on student retention. For example,

an online application to process scholarships or housing applications relieves staff from data entry tasks and allows them to concentrate on student retention.

- Space/Physical Infrastructure – The IT laptop checkout program is an example of how students can access general use computers in a mobile form relieving the need for general computing lab space. IT services allow on-line courses to be offered alleviated the crunch for classroom space. The IT budget includes funding to create a Virtual Private Network, which can facilitate telecommuting.
- Staffing to Support Growth – The bulk of the IT budget request is for positions, not things. We need staff to handle the rapid growth of students, faculty, and staff.
- Tenure Track Faculty Hires – N/A
- Training and Development – IT is responsible for providing subject expertise and IT training to the University community. During FY06-07, IT hired a desktop support employee with a technical training background. We plan to make use of that background if we are able to fund the Help Desk positions requested in this budget. If the University funds a formal Training and Development program, IT will still have to provide the subject matter and the trainer.