

Cypress College

Technology Plan

Prepared by:
Academic Computing and Media Services in consultation with
Cypress College Campus Technology Committee

November 11, 2008

Document Review/Approval Dates

Campus Technology Committee Review – 22 April 2008
Campus Technology Committee Approval – 13 May 2008
Budget and Planning Committee –
Constituent Groups –
Presidents Advisory Council -

| | |
|------------------------------------------------------------------------------------------------------------------------------|----|
| Executive Summary | 4 |
| Cypress College Technology Goals and Objectives..... | 6 |
| Goal 1: Establish funding mechanisms necessary to maintain and further develop the effective replacement of technology | 6 |
| Goal 2: Develop effective training opportunities for Faculty and Staff | 6 |
| Goal 3: Develop strategies and systems for insuring the integrity of systems and data..... | 6 |
| Goal 4: Develop and implement strategies to maintain secure access to systems and applications. | 7 |
| Goal 5: Maintain access to computers and technology to support instructional and operational objectives..... | 7 |
| The Planning Process..... | 8 |
| Infrastructure, Hardware and Software..... | 9 |
| Infrastructure: | 9 |
| Hardware | 9 |
| Technology Services..... | 9 |
| Electronic Mail | 9 |
| Shared Storage | 9 |
| Web Site | 9 |
| Remote Access | 10 |
| Virtual Systems..... | 10 |
| CCCSAT Satellite Downlink | 10 |
| Satellite TV Programming..... | 10 |
| Videoconferencing and Teleconferencing..... | 11 |
| Course Management System (CMS)..... | 11 |
| Wireless Access | 12 |
| Financial Resources..... | 12 |
| Staffing | 12 |
| Background | 12 |
| Current Organizational Structure..... | 12 |
| Current Staffing | 13 |
| Administration | 13 |
| Technical Support Personnel..... | 13 |
| Administrative Support Personnel | 13 |
| Baseline Systems, Applications, and Software..... | 13 |
| Software Licenses and Agreements..... | 13 |
| Network Security | 14 |
| Virus Protection | 14 |
| Network Management | 14 |
| Future Infrastructure Upgrades and Additions under Consideration..... | 14 |
| Computer replacement schedule and estimated costs | 15 |
| Computer Types - Computer Specifications (Minimum Requirements) – 4/8/2008..... | 16 |

Executive Summary

One of the ingredients in a dynamic environment is the use of information technology. Higher education is changing as a result of information technology and the college must not only continue to respond to these changes, but responsibly guide and lead them. Computer based and multimedia technologies expand the possibilities for creative teaching, collaborative research, and meaningful public service. To explore and use these technologies, Cypress College must create a framework that enables and encourages a wide and varied use of technology. We live in an information age, we are all enlisted (voluntarily or not) in an information revolution, more of us are becoming information/knowledge workers, and we are preparing our students to enter an information-based economy. This Information Technology Plan recommends a number of goal and objectives to enhance learning and expand access, while addressing the need to ensure reliable delivery of information. Underpinning this plan is a campus-wide vision for the role and use of information technology that facilitates growth in the delivery of education and nurtures the success of our students. Student learning is the highest priority at Cypress College.

The Cypress College Technology Plan recognizes the core requirements necessary for the continued support of Information Technologies at the college but most important, it identifies specific advancement objectives that will allow the college to reach our IT goals over the next three years of the plan. The Technology Plan will be reviewed annually by the Campus Technology Committee to identify trends that should be incorporated within the plan. This plan does not work alone; several other campus planning documents are used along with and in the creation of the technology plan, including the Educational Master Plan and the Campus Strategic Plan. Because of the need for the technology plan to be flexible, the goals and objectives may change as the technology needs of the institution change. The focus of the technology plan will be on the following goals:

Goal 1: Establish funding mechanisms necessary to maintain and further develop the effective replacement and refresh of technology: Identifies sources of ongoing funding for equipment, software, systems replacement, and systems maintenance. It also identifies the ratio of computer needs in several key functional areas such as student labs, staff and faculty areas.

Goal 2: Develop effective training opportunities for Faculty and Staff: Objective A: Provide access to web page development training at least 12 times per year: Training is provided on a continuous and ongoing basis on baseline systems such as web development and E-mail training. This training ranges from basic needs to some more advanced topics.

Goal 3: Develop strategies and systems for insuring the integrity of systems and data: Outline current and proposed systems to maintain systems and data integrity. This includes backups of user data stored on network resources for the restoration of information and systems.

Goal 4: Develop and implement strategies to maintain secure access to systems and applications: Security of information system resources requires establishing a formal security policy that provides basic rules, guidelines and definitions for the use and administration of the campus systems. Currently, the District "Computer Use Policy" is being re-written to clarify and details the District policy in this area. The guidelines are being developed by a sub-committee of the District Planning Council with input from constituent group representatives. This goal recognizes the need to secure the administrative environment and the need for "academic freedom" in other areas. Several network management tools are the basis for managing campus network and computer security. One of the biggest challenges is how to manage and maintain security with the growing use of wireless network devices and systems. Wireless systems are becoming an integral part of educational environments, that it requires special attention. These challenges and system requirements are detailed in the current Technology Plan.

Goal 5: Maintain access to computers and technology to support instructional and operational objectives: This goal includes plans to replace and update equipment and technology on a constant and continual basis, and plans for maintaining current equipment and technologies. Another objective is to provide helpdesk and repair support for extended day and weekend instructional and administrative needs.

The Cypress College Information Technology Plan is a comprehensive approach to the development of information technology resources and the needs of the college. It provides a thoughtful and measured vision for how information technology should be developed, used and applied at the college over the next three years. It is sensitive to the fact that Cypress College is a multi-disciplined institution with an emphasis in Business, Computer Information Systems, Health Sciences, Fine Arts, Language Arts, Social Sciences, Science Engineering and Mathematics, Physical Education and Vocational / Technical programs. A practical approach is taken to appreciate the need to balance the central direction in the development of some areas of information technology security with the need for flexible access of academic groups and operational areas. In addition, it recognizes the importance of effective access to the College's infrastructure and information assets from anywhere and at any time.

Cypress College Technology Goals and Objectives

Goal 1: Establish funding mechanisms necessary to maintain and further develop the effective replacement of technology

Objective A: Identify sources of ongoing funding to maintain computer replacement and refresh every three to five years.

Objective B: Identify sources of ongoing funding to maintain multimedia equipment replacement and refresh at a minimum of every 5 years.

Objective C: Identify sources of ongoing funding to maintain campus infrastructure maintenance on an annual basis.

Objective D: Identify sources of ongoing funding to maintain software applications refresh and replacement on an annual basis.

Objective E: Maintain a ratio of one computer for every 20 full-time students.

Objective F: Ensure a baseline of computer access that agreeably accommodates students with disabilities.

Objective G: Maintain a ration of faculty computers and access at a minimum of one computer for each full-time faculty and access to one computer for every three part-time faculty.

Objective H: Maintain a computer access by full-time classified staff at 80%.

Goal 2: Develop effective training opportunities for Faculty and Staff

Objective A: Provide access to web page development training, including accessibility and copyright guidelines and requirements, at least 12 times per year.

Objective B: Provide access to e-mail training at least 12 times per year

Objective C: Establish a posted schedule of continuous workshops that allow for the ongoing training of faculty in the use of information technology tools.

Goal 3: Develop strategies and systems for insuring the integrity of systems and data

Objective A: Identify funding sources to increase or maintain infrastructure up-time rates by increasing system redundancy.

Objective B: Obtain an infrastructure backup system that is sufficient and scalable and will provide the backup of system data for an indefinite period of time.

Objective C: Obtain an infrastructure backup system that is sufficient and scalable and will provide the backup of user data for an sufficient period of time to provide restoration of information.

Goal 4: Develop and implement strategies to maintain secure access to systems and applications.

Objective A: Identify and implement a network/system logon system that will maintain reasonable network security for instructional systems.

Objective B: Identify and implement a network/system logon system that will maintain reasonable network security for administrative systems.

Objective C: Identify and implement a network/system logon system that will maintain reasonable network security for guests to the college.

Objective D: Identify and implement security systems to meet the need of desktop users and guests accessing the campus network from remote locations.

Objective E: Identify and implement security systems to meet the needs of the campus infrastructure (including servers, network devices, etc.)

Goal 5: Maintain access to computers and technology to support instructional and operational objectives.

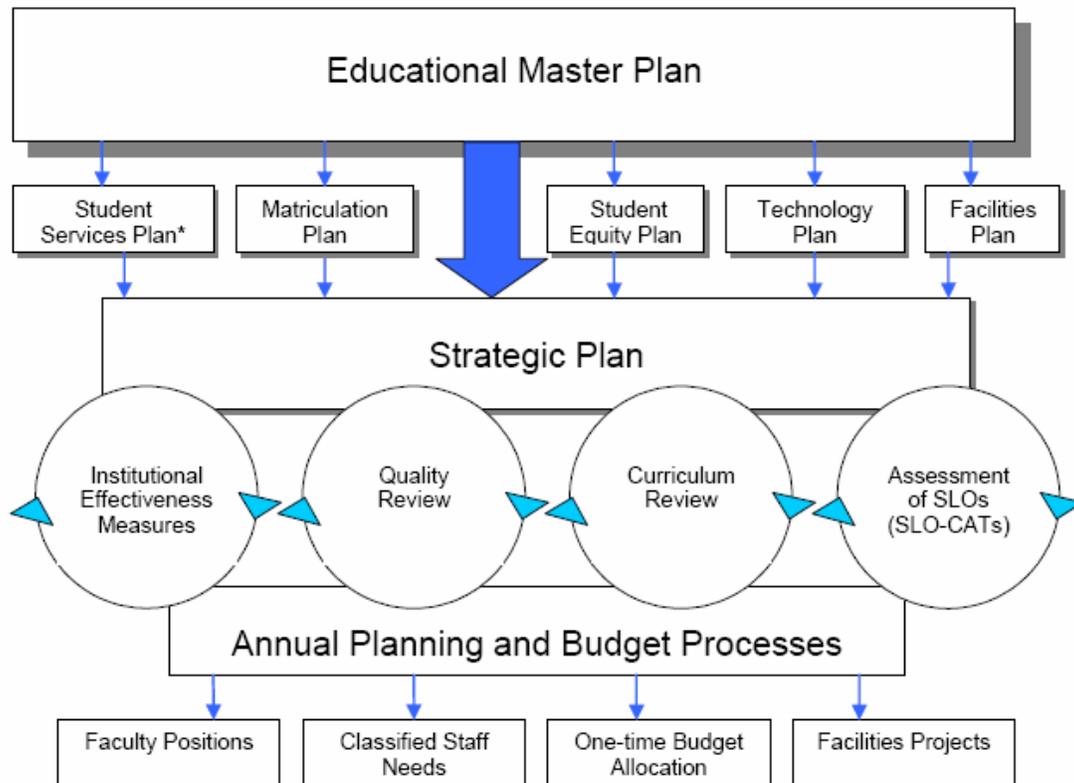
Objective A: Identify and implement a plan or replacement cycle for all instructional and support systems and desktops that will maintain the operational objectives of Cypress College.

Objective B: Identify and implement a plan to support the maintenance of all instructional and support systems and desktops that will maintain the operational objectives of the Cypress College.

Objective C: Provide after-hours support during the evening hours and on Saturday.

The Planning Process

Planning involves a number of mechanisms at Cypress College. As depicted by the chart, the Technology Plan is a small part of the overall planning process and has a direct interface with the EMP and the Strategic Plan. The information in the Technology Plan is used to support decisions made at all levels of the organization, especially within the Annual Planning and Budget Process.



Infrastructure, Hardware and Software

Infrastructure:

The campus technology infrastructure consists of XX Building and Intermediate Distribution Frames spread out among XX buildings. These BDF/IDF's are connected to a central MDF via redundant fiber links. The MDF consists of redundant Cisco cores, routers, and various network systems and servers.

Hardware

The campus has an open environment for most computing devices for which there is a demonstrated need. The campus has standardized with Dell brand hardware for servers and desktop systems. Some of the other system brands supported are HP, Apple, and Sony.

Currently the campus has about 1450 desktop systems in operation within the campus.

Technology Services

Electronic Mail

E-mail is provided to all faculty and staff and others as needs arise. Students have a variety of off-campus sources for E-mail and generally have several E-mail accounts.

Shared Storage

Network Storage is provided for many operational, planning, and support materials and is available to all faculty and staff on the campus J-drive. In addition, departments have shared drives in support of specific program and operational needs.

Web Site

The campus web-site is currently undergoing a major re-design and restructuring . Go-live date is August 2008, with ongoing development of less critical pages continuing during the summer.

The re-design is expected to provide the following:

Shift the focus of the web-site to more of marketing and outreach

Develop a consistent look, feel and branding to the site.

Provide a site that can easily be maintained and managed.

Simplify updating of the site.

Provide enhanced security

Establish a workflow that can help identify issues in a timely manner.

The campus web-site is being re-designed taking into consideration several other systems in use within North Orange County Community College District. The first is MyGateway (the District portal), which is used as the gateway to the District and the campuses for instructional, faculty and staff support. The second is Blackboard, which is used for on-line, hybrid, and web-enhanced instruction. Along with the campus web-site, this provides for instructional, support, and outreach platforms/systems. These three separate systems allow us to more effectively target specific needs among student, faculty, staff, and prospective students.

Remote Access

Citrix provides remote access to faculty, staff, and students. The remote access provides a single point of access to applications and systems needed in support of instructional (online and traditional), and operational requirements. This allows students remote access to applications and systems that would normally only be allowed in a traditional classroom setting. This is generally for students taking online classes, but is also used for traditional student to use tutorials and applications from remote locations. In addition, various operational systems such as e-mail, shared folders and other systems are available to administrative staff from remote locations.

Virtual Systems

The campus production network systems have been moved to a virtual environment using VMware. This provides Academic Computing and the campus with a very powerful, flexible, and reliable platform for providing campus networking and systems services. Currently about 70% of the campus production systems are being run in the VMware environment. This results in a cost savings, including lower resource needs for electricity, lower cooling requirement, space saving and consolidation, and reduced systems management overhead.

Some classes require students to have access to multiple systems for training purposes. The virtual environment provides this capability without the need to purchase multiple systems student use. The virtual systems provides student with access to virtual systems in the classroom, lab, or remote locations while providing the campus with a lower cost of ownership.

CCCSAT Satellite Downlink

CCCSAT is a statewide initiative established by the California Community College Chancellor's Office to advance distance learning and support the mission of the California Community College system. CCCSAT is physically domiciled at Palomar College - Educational Television. CCC is able to access CCCSAT programming for live or archived broadcasts.

Satellite TV Programming

Support for satellite TV is through a subscription with Dish Network. Currently, the campus support nine channels of programming with plan to increase programming selection. Programming for channels 50 to 73 will be coming soon.

Current programming

| Campus Channel | Broadcast Channel |
|----------------|-------------------|
| 27 | Fullerton College |
| 40 | CBS 2 |
| 41 | NBC 4 |
| 42 | KTLA 5 The CW |
| 43 | ABC |
| 44 | *** Blank *** |
| 45 | Fox 11 |
| 46 | MY 13 |
| 47 | Spike TV |
| 48 | Oxygen |
| 49 | Biography |
| 50 | ESPN |
| 51 | ESPN-2 |
| 52 | ESPN CI |

| | |
|----|------------------|
| 53 | ESPN Ne |
| 54 | MTV |
| 55 | MTV2 |
| 56 | VH1 |
| 57 | VH1 C |
| 58 | CMT |
| 59 | E! |
| 60 | CNN |
| 61 | Bloom |
| 62 | Fox News |
| 63 | CNBC W |
| 64 | CNBC |
| 65 | MSNBC |
| 66 | Weather |
| 67 | Discovery |
| 68 | Discovery Health |
| 69 | Discovery Home |
| 70 | Food |
| 71 | HGTV |
| 72 | History |
| 73 | History I |

Videoconferencing and Teleconferencing

Currently, one videoconferencing system is available for use in the Cypress Complex. Three new systems are in the process of being ordered in support of specific classroom requirement and general use by the campus.

Course Management System (CMS)

Web Education (online, hybrid, and web enhanced courses) supports Cypress College online, hybrid, and web-enhanced instruction. Web enhanced courses at Cypress College are defined as face-to-face courses that use the web to deliver materials and not instruction online. Web enhanced courses offer students access to class materials and other resources online, while online and hybrid courses provide online instruction equivalent to face-to-face campus instruction.

In addition to offering ongoing training in teaching methodologies and instructional technology, the Web Education program reviews software, hardware, and courseware delivery systems on a regular basis in an effort to provide effective options and lower cost solutions for quality distance education. Support for online, hybrid, and web enhanced course delivery methods is dependant solely upon college funding which is determined on a yearly basis.

There are two delivery systems in current use for online, hybrid, and web-enhanced courses. Online and hybrid instruction is delivered with Blackboard, a course management system (CMS) designed for web-based instruction. With the current Blackboard contract, instructors also have the option of using Blackboard for web-enhanced courses. Web-enhanced courses are supported by MyGateway, the district Luminis portal. Luminis Course Studio features cannot support web-based instruction at this time and there are no plans to develop it for delivering online instruction in the future.

Current recommendations for the CMS are:

1. Create a line item to permanently budget for Web Education program support including a coordinator and administrative assistant.
2. Create a line item to permanently budget for a Course Management System. The March 29, 2007- June 1, 2008 (14 mo.) contract cost for Blackboard.com was \$187, 438.32 with one time cost reductions of \$21, 995.50 for a net cost of \$165,442.82 for the licensing and hosting fees.
3. Continue to explore an open source solution for course management system.
4. Explore the possibility of offering a Cypress College student email account to enable assured communication for online and hybrid students.

Wireless Access

The need for wireless access to the campus is increasing for students, faculty, and staff. Wireless provides flexible access to various campus systems and applications from virtually any area of the campus. Wireless access is available to a large area of the campus buildings. The wireless network is being deployed as buildings are remodeled or constructed.

Financial Resources

Financial resources for replacement hardware (technology and media) are accomplished through the annual one-time budget process. In the past several years this funding has been given a high priority and has been funded ahead of the process. Generally funding is provided based on the replacement plan for that given year. Some years, replacement funding is as low as \$80,000, while in other years the funding exceeds \$400,000. This is primarily a result of the 3 year and 5 year replacement cycles. In order to even out the funding need, additional funding would be needed in years that require less funding. This would allow Academic Computing to purchase additional computers to replace computers that are in one of the higher cost replacement years. The intent is to stabilize the replacement of computers to about 20% of the campus total each given year. This equates to about 250 computers per year. After about two to three years, the annual funding requirement for desktop computers would level out to about \$250,000 a year. The uneven distribution of replacement computers has a detrimental effect on support needs by straining technology resources due to the labor required to install 400 – 500 computers in a given year.

Software, applications and maintenance support for campus systems are provided on an ongoing basis and do not require requests for funding from year to year, unless increased to the software, applications or maintenance requirement warrant a request.

Staffing

Background

Prior to 1999, support for technology was provided by District Information Services. As the need for technology grew, a need for local support also grew.

In 1999, the position of Director of Academic Computing Technologies was established and filled. Since that time, eight positions have been created and filled in support of campus technology needs. These positions are identified in the current staffing section to follow.

Current Organizational Structure

The faculty, staff and students (indirectly) receive support from Academic Computing and Media Services for computer technology and media related issues. These support services are under the direction of the Director of Academic Computing Technologies. Campus labs provide direct user/student support with lab personnel and in-house staff and faculty.

Current Staffing

Administration

The Director of Academic Computing Technologies is the administrator in charge of the Academic Computing and Media Services Departments, and oversees technology and media support for all faculty staff, and student support technical issues. The Academic Computing department is responsible for the planning, design, implementation, and maintenance of the college network. It is responsible for the installation and maintenance of all computing hardware including but not limited to servers, workstations, printers, scanners, and other peripherals. It is also responsible for the installation of software and provision of end user support.

Total technology administration = 1

Technical Support Personnel

The following IT/Media personnel provide technical support.

- (2) – Information Technology Coordinator 1
- (2) – IT Specialist, Systems Applications
- (2) – IT Specialist
- (1) – User Support Analyst
- (1) – Multimedia Systems Specialist
- (1) – Schedule Specialist

Total technical staff = 9

Administrative Support Personnel

- (1) – Administrative Assistant II

Total administrative staff = 1

Baseline Systems, Applications, and Software

Software Licenses and Agreements

Currently the campus maintains a Microsoft Campus Agreement that support a large part of the software used by instructional and operational programs at Cypress College. In addition to this agreement, a number of other software need are provided by an annual agreement or purchased for instructional needs by Academic Computing.

| Software | Type of Software | Used By | License Type |
|-----------------------------------------|----------------------------------------|----------------------------------------|---------------------|
| Microsoft Campus Agreement | Desktop Productivity | Instructional and Operational Programs | Campus |
| Novell Software Agreement | Network and Email Systems and Programs | Instructional and Operational Programs | Campus |
| Various Software Maintenance Agreements | Varied | Varied | Varied |

Network Security

Securing Cypress College information resources presents the challenge of balancing the need for access with the need to support the administrative and instructional environments on the campus. There needs to be a balance established that is based upon a responsible approach to reducing risk of unauthorized intrusion. The following key baseline systems are in place.

- Safe-Connect: Network Access Control (NAC)
- Packeteer: Network bandwidth control
- PIX Firewall: Public gateway security
- McAfee SCM-3200: Network anti-virus and spam control
- McAfee desktop anti-virus software

Virus Protection

Current Anti-Virus protection is provided from the network and from the desktop. This protection is updated daily and provides a great deal of protection. Some security gaps have been identified, mainly with wireless access and student owned computers. These gaps been reduced with the addition of a Network Access Control (NAC) appliance. The (NAC) prevents users to connect personal laptops to the campus network without anti-virus protection or critical system updates.

Network Management

Expanding access to information systems at Cypress College increases the college community's ability to be successful, while the use of wireless access presents concerns about security and the appropriate use of information systems. To reduce this risk a managed approach should be implemented that addresses the need for secure mobility within the campus environment. This approach should provide the ability to segment different user populations yet still provide full mobility to all groups.

Future Infrastructure Upgrades and Additions under Consideration

| System | Timeframe | Approx. Cost | Funding Source | Remarks |
|---------------------------------|------------------|----------------------|-----------------------|----------------------------------------------------------------------------------------------------------------|
| Network Access Control System | FY 2008 | \$30,000 to \$80,000 | Possibly TTIP Funding | Fill Gaps in Anti-virus and security control, Activated Aug 2008 for wireless systems. Roll out will continue. |
| Wireless Network Expansion | Unknown | \$60,000 | None Identified | 100 Access Points |
| VOIP – Call Manager | Unknown | \$80,000 | None Identified | |
| VOIP Desktop Phone Replacements | Unknown | \$350,000 | None Identified | 700 Plus Phones |

| System | Timeframe | Approx. Cost | Funding Source | Remarks |
|-----------------------------------------------------------|------------------|---------------------|----------------------------------|----------------|
| Wireless/WiFi VOIP (for Emergency and Critical Positions) | Unknown | \$15,000 | None Identified | 50 Phones |
| Building BDF/IDF Redundancy | Unknown | \$270,000 | None Identified | |
| Location Appliance | Unknown | \$10,000 | None Identified | |
| Wireless LAN Security Engine | Unknown | \$5,000 | None Identified | |
| Video System Upgrade | FY 2008 | \$12,000 | Academic Computing General Funds | Completed |

Computer replacement schedule and estimated costs

The Computer Replacement Schedule consists of a Three and a Five Year Replacement Schedule. A rolling 12 year schedule is provided to normalize the two schedules for budget averaging. The total number of computers within the rotation is approximately 1427 (20% for Staff, 63% for Instructional, 17% for Faculty).

The Three-Year Replacement Cycle consists of systems that have been determined to require replacement on a more frequent basis. This is due to the validated need of the program or functional area. In most situations, this is dictated by the need for a high performance computing environment, such as Digital Graphics and Photography. In other cases it may simply be a business function or need, such as in the accounting, finance, or research area.

Currently, the replacement plan is funded on an ongoing annual basis with one-time funds. One issue with this, is the lack of ability to average out the computer purchases per year. You can see in the table below, there are several years with a high number of computer replacements, and several years with a low replacement schedule. This causes the requests from year-to-year to increase or decrease by as much as seven times. This procedure tends to put a strain on the Academic Computing Resources during the replacement years with a high number of computers to be replaced. There is only one possible solution to this issue. Provide a constant stream of funding at the annual average cost of replacement. This will allow computers to be purchased early and start averaging the replacement numbers each year. This solution will require additional funding above the average for a number of years in order moderate computer needs for each year.

Academic Computing is starting to deploy thin-clients as a replacement for selected desktop systems that can be supported by this technology.

The current replacement plan includes desktop systems that were purchased through the annual one-time budget process. Any computer approved through that process is included in future replacements. However, desktop systems that are not approved and purchased through the one-time budget process will not be included on the replacement plan. This schedule provides a general annual requirement to support the replacement of computers that are part of the replacement plan.

Rolling Three and Five Year Computer Replacement Schedule

| FY | 3 Year | 5 Year | Total | Low | Med | High |
|------|--------|--------|-------|------------|------------|------------|
| 2008 | 17 | 70 | 87 | \$ 124,600 | \$ 136,959 | \$ 177,504 |
| 2009 | 2 | 59 | 61 | \$ 70,500 | \$ 71,954 | \$ 76,724 |
| 2010 | 39 | 405 | 444 | \$ 554,700 | \$ 583,053 | \$ 676,068 |
| 2011 | 3 | 278 | 281 | \$ 314,200 | \$ 316,381 | \$ 323,536 |
| 2012 | 17 | 370 | 387 | \$ 454,600 | \$ 466,959 | \$ 507,504 |
| 2013 | 2 | 184 | 186 | \$ 208,000 | \$ 209,454 | \$ 214,224 |
| 2014 | 39 | 70 | 109 | \$ 186,200 | \$ 214,553 | \$ 307,568 |
| 2015 | 3 | 59 | 62 | \$ 73,300 | \$ 75,481 | \$ 82,636 |
| 2016 | 17 | 405 | 422 | \$ 493,100 | \$ 505,459 | \$ 546,004 |
| 2017 | 2 | 278 | 280 | \$ 311,400 | \$ 312,854 | \$ 317,624 |
| 2018 | 39 | 370 | 409 | \$ 516,200 | \$ 544,553 | \$ 637,568 |
| 2019 | 3 | 184 | 187 | \$ 210,800 | \$ 212,981 | \$ 220,136 |

| | | | |
|--------------|--------------|--------------|--------------|
| 12 Year Cost | \$ 3,517,600 | \$ 3,650,641 | \$ 4,087,096 |
|--------------|--------------|--------------|--------------|

| | | | |
|---------------|--------------|--------------|--------------|
| Avg. per Year | \$293,133.33 | \$304,220.08 | \$340,591.33 |
|---------------|--------------|--------------|--------------|

**Computer Types - Computer Specifications
(Minimum Requirements) – 4/8/2008**

The following list identifies the types and minimum requirements of computers purchased for various functional areas and needs. This list is used as a general guideline and may be modified on an Ad-hoc basic based on requirement changed between annual reviews. This list should be reviewed and validated annually.

Type A1: Student Lab Computers: \$1,155.00

- Intel Core 2 Duo (All in one)
- 80 GB Hard Drive
- CD/DVD (no writing)
- USB Ports
- Flat Panel Display (17 inch)
- Memory: 2 GBytes
- Standard Video
- Standard Keyboard
- Standard Mouse

Type A2: Business Lab Computers: \$965.00

- Intel Core 2 Duo (Desktop Chassis)
- 160GB Hard Drive
- CD/DVD (CD Writing)

- USB Ports
- Memory: 2 GBytes
- 256MB Video
- Standard Keyboard
- Standard Mouse
- No Monitor

Type B: Faculty Computers:

- Same as "C"

Type C: Administrative, Faculty, Classroom Tech Computers: \$1,100.00

- Intel Core 2 Duo (Desktop Chassis)
- 80GB Hard Drive
- CD/DVD (CD Writing)
- USB Ports
- Flat Panel Display (17 inch min.)
- Memory: 2 GBytes
- Standard Video
- Standard Keyboard
- Standard Mouse

Type D: Classroom Technology

- Same as "C"

Type E: Adjunct Faculty Computers

- Same as "C"

Type F: Apple Desktop Computers: \$1,270.00

- iMac 20" Intel Core 2 Duo 2.0Ghz
- 1GB RAM
- 250GB HDD
- 8x Double-Layer Super Drive (CD-R/RW, DVD +R/RW –R/RW)
- Keyboard
- Mouse
- Standard graphics

Type G1L (Formally H1L): Photo and Digital Graphics \$2,080.00

- Intel Core 2 Duo
- 250GB HDD
- CD-RW/DVD Combo Drive
- Memory 4GB
- USB
- Firewire
- 256MB Graphics
- Keyboard
- Mouse
- No Monitor

Type G1M (Formally H1M): Photo and Digital Graphics \$2,640.00

- Intel Core 2 Duo
- 250GB HDD
- DVD+/- RW
- Memory 4GB
- USB

- Firewire
- 512MB Graphics
- Keyboard
- Mouse
- 19" Wide Screen Samsung

Type G1H (Formally H1H): Photo and Digital Graphics \$3,275.00

- Intel Core 2 Duo
- 250GB HDD
- CD-RW/DVD Combo Drive
- Memory 4GB
- USB
- Firewire
- 768MB Graphics
- Keyboard
- Mouse
- 19" Wide Screen Samsung

Type G2L (Formally H2L): Photo and Digital Graphics, \$2,800.00

- Mac Pro Quad-Core Intel Xeon
- 320GB HDD
- 16x Super Drive (CD-R/RW, DVD +R/RW –R/RW)
- Memory 4GB
- USB
- Firewire
- 256MB Graphics
- Keyboard
- Mouse
- No Monitor

Type G2M (Formally H2M): Photo and Digital Graphics, \$3,527.00

- Mac Pro Quad-Core Intel Xeon
- 320GB HDD
- 16x Super Drive (CD-R/RW, DVD +R/RW –R/RW)
- Memory 4GB
- USB
- Firewire
- 512MB Graphics
- Keyboard
- Mouse
- 20" Apple Cinema Display

Type G2H (Formally H2H): Photo and Digital Graphics, \$5,912.00

- Mac Pro Quad-Core Intel Xeon
- 320GB HDD
- 16x Super Drive (CD-R/RW, DVD +R/RW –R/RW)
- Memory 4GB
- USB
- Firewire
- 1.5 GB Graphics
- Keyboard
- Mouse
- 20" Apple Cinema Display

Type J: Internet Only \$495.00

- Thin-Client Type
- Flat Panel Display (17 inch min.)