

Fall 2008 Comprehensive Program Review

Name of Program: Info Tech/ AVMS/ Reprographics/ Operators/Cub Card
Name of Unit: Finance and Technology
Name of Area: Administrative Services
Date Completed: 12/01/2008

Program's Mission Statement

The Information Technology department is committed to the support of student learning programs and services and to improve institutional effectiveness.

Program Outcomes

Information Technology provides leadership, planning, and direct technical support for both academic and administrative computing within the college. This includes: academic lab software and hardware support; college wide networking (both WAN and LAN support); help desk functions for administrative, and academic users; college wide telephony services; support and administration of academic and administrative servers; support and management of employee cub card IDs, Instructional Multimedia and college operators.

Information Technology is responsible for the College wide information delivery infrastructure and its supporting components. Organizationally, this encompasses the following services and support groups within Information Technology:

- * Network Services
- * Administrative Systems
- * Academic systems
- * Desktop Computing
- * IT Help Desk
- * Instructional Multimedia
- * Audio Visual
- * Reprographics
- * Employee ID System
- * Videoconferencing and Teleconferencing
- * Telephony Services
- * Remote Support for Satellite Educational Centers
- * College Telephone Operators

Program's Characteristics, Performance, and Trends

IT SERVICES

A) Network Services

- Plans and provides all the necessary components for a college wide Cisco and HP based 10/100 Ethernet, utilizing a DS-3 (45 Mbits per second) connection from LA City College to the Internet service provided by CENIC (Corporation for Education Network Initiatives in California) as well as inter –campus connectivity from LA City College to the District Office and all other eight (8) colleges within our District, currently operating via 10MB VPN tunnel lines, with additional redundant Frame Relay connectivity between our college and District Office for failover purposes. In addition to the campus to campus connectivity, network services are also provided to the City College at Wilshire off site location.
- Provides centralized security and intrusion detection, anti-spam filtering, and network monitoring to insure a reliable, secure network environment.
- Planning, implementation and maintenance of enterprise level solutions for email, storage area networks (SANS), and servers in support of academic and administrative needs.

B) Application/Web Servers

- The college web servers host the LACC home page as well as web sites for instructors, departments and offices. The college email servers provide college faculty, staff and students with email accounts. Application servers host college wide and department specific applications like EdExpress for Financial Aid; SARS and ActionPlanIt for EOP&S; STARS and OCS for college FTES data collection and student printing and copying services. Remotely hosted servers are also provided by contract for online course hosting.

C) Desktop Computer Support

- Responsible for maintaining and supporting the institutional desktop computing services for faculty and staff as well as the academic lab environments. This includes assisting with purchasing and requisitioning, full hardware and software support, license management and asset control.
- Centrally purchase, distribute and maintain the Microsoft Windows environment for the college. This consists of the latest version of Windows, the Microsoft Office Suite (Word, Excel, Power Point, Access, Visio, Outlook, and Publisher) Front Page and Visual Studio Pro.
- Specific educational and other software is purchased by various departments with the help of the Information Technology department to insure hardware compatibility, group purchasing discounts and software licensing compliance.

D) Email, Voice Mail and Fax Services

- E-mail, voice mail and fax services are available for all faculty and staff. This is a unified messaging system that combines electronic mail, voice mail and fax services into one system and access is provided through Microsoft Exchange.

E) Telephone Group

- Maintains a centralized telephone system for the college. Currently, we are fully deployed with a voice over internet protocol (VoIP) solution by Cisco.
- Negotiates and purchases outbound circuit connectivity for local and long distance calling for the college to take advantage of volume discounts and other incentives offered by service providers.
- Contract for college cell phones and manages the Blackberry server which provides users with full integration between their Blackberry phones and the Outlook email and calendaring functions.
- Responsible for account reconciliation with all vendors for the previously described services.

F) Help Desk

- Provide a centralized tracking system and work request generation for all Information Technology related issues, wireless applications, District enterprise applications (DEC, SAP, Protocol, PCR, etc.), and a Facilities work order system. Incoming problems are reported to the help desk via phone call, email or work requests entered directly into the web interface of the help desk system (Altiris) by end users. Tickets are then routed to specific IT staff for the problem resolution. We receive an average of 440 work requests per month (approximately 20/day).

G) Instructional Multimedia

- The Instructional Multimedia Center (IMC) provides the faculty of Los Angeles City College with multimedia services ranging from video and audio equipment to portable computers and sound systems. Instructional equipment and materials are available to faculty and staff for presentation or classroom usage. These include a video and film library, video players, monitors and projectors, computers on wheels (COW), and audio systems.

H) Cub Card IDs

- The college issues an identification card to all faculty, staff and students. The card is a form of identification, and provides access to parking lot areas, copiers, library and computer lab services (print, copy, and book check outs) and electronic access to most rooms in new building like the Library. As part of the planning for Proposition A/AA/J buildings, the usage of the smart card will be expanded to include building/room access, small bookstore purchases and vending machine purchases.

I) Videoconferencing and Teleconferencing

- The President's Conference Room (PCR) and Harris & Associates (college CPM) have been equipped with a High Definition camera and television with microphones, speakers and a codec to facilitate videoconferencing. Furthermore, the college network is capable of sending the videoconference program to any desktop computer that is capable of accepting the video/audio stream.

J) Student Service Kiosks

- The LACC Intranet is in place to support kiosks and student-accessible stations for general information, admissions, guidance, and locations of resources.

K) 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. LACC is able to access CCCSAT programming for live or archived broadcasts.

L) Remote Support for Satellite Educational Centers

- Provide support to existing satellite City College at Wilshire (CCW) remotely and on site at least once a week. We are also scheduled to provide support to the new satellite location, North-East Campus (located on 2930 Fletcher Dr., LA, CA 90065), remotely and a new IT position is scheduled to be stationed on site to assist with the on site support.

M) College Telephone Operators

- The Telephone Operators answer and route all general calls to the college. They also assist with the printing of the employee cub card identifications, route some incoming faxes from the central fax server, distribute district reports and process IT and process paperwork such as phone bills, purchase orders and timesheets.

PHYSICAL RESOURCES

LACC has an integrated and converged network. The administration building is the hub of the network that is physically laid out as a star. The cabling is designed to host multiple systems such as data, voice, video, safety/security, and energy management systems. Fiber optics cable is used for the backbone (to connect the other buildings back to the administration building) and copper cable is used for the distribution inside buildings. Below is a diagram of the college network.

The Local Area Network (LAN), or simply the college network, uses an Ethernet cabling scheme that provides a switched 100 Mbps data transmission rate. However, recent improvements in technology now permit transmission rates of 10Gbps so we are planning to upgrade our backbone to link all buildings at 10Gbps and 1Gbps to the desktops. The college network is linked into a Wide Area Network (WAN) that includes the district office and the other campuses using meshed VPN tunnels within our ISP lines. The college network is linked to the Internet via Corporation for Education Network Initiatives in California (CENIC) using a 1Gigabit line. The Internet DS3 lines have a data transmission capacity of 45 Mbps and we were recently granted an additional 1Gbps (1024 Mbps which is approximately 22 times faster than the previous DS3 line). The college has one satellite education center that is connected to the main campus via T1 lines. There will be a second satellite education center going live by the fall of 2009 which will increase the demand for IT support by at least 20%. The distinct characteristics of the college network are as follows.

- High bandwidth and fast access
- A converged network with the ability to transfer data, video, audio, and graphics
- Easy-to-use but secure environment
- Access to online, real-time data
- Office productivity tools
- Applications that improve the workflow at reduced costs

ACADEMIC COMPUTER FACILITIES AND HARDWARE

Current inventory show 53 labs containing 1,385 computers for the following uses; classroom, departmental lab, and other (Assessment Center & Teaching Learning Center).

FACULTY COMPUTERS

As of December 2008, every member of the LACC faculty has access to a computer, the Internet and an email account. Current inventory shows 361 computers in faculty offices.

ADMINISTRATOR AND CLASSIFIED STAFF COMPUTERS

As of December 2008, all members of the LACC administrative & clerical staff have a computer and access to the Internet and an email account. All other classified staff members have access to computer resources. Current inventory shows a total of 289 computers in administrative use.

LICENSED SOFTWARE

In an effort to reduce costs for software and use existing resources efficiently, it is the intention of the Manager of College Information Systems to maintain a database of licensed software and implement the idea of “softwarehousing”. Softwarehousing is best implemented after a determination of the software needs of the campus. The college should then negotiate for site licensing prices from a reseller or the software developer. This may require a contract between the college and the reseller/software developer.

At present, the college has site licensing agreements with Computerland for Microsoft software, Symantec for virus protection software, Desktop management (imaging, remote support) and IT Help Desk. The reseller or software developer delivers to the college a complete set of documentation, diskettes, or CDs with the product. No successive purchases are required for a license to install the product on more workstations. The college just needs to keep track of how many licenses are available and in use. This approach saves redundancy in product and should result in a lower unit price. As more workstations come online, the networks will deal with the distribution and variety to some extent. Furthermore, most site licensing agreements have a maintenance provision that allows the college to upgrade the licensed software to a new version at no additional cost.

IT HUMAN RESOURCES

BACKGROUND:

As a general criterion, the ratio (the network support staffing ratios are recommended by Gartner Group, an international information technology consulting service) of support staff to technology users depends on the level or type of use required by the user. Users are divided into three broad categories. The ratio for “power users”—those who develop their own applications and always need the newest and fastest—is 1 (support staff):30 to 50 (users). The ratio for “middle-of-the-road users”—those who use a common suite of applications or use servers for database decision-support or work-group support—is 1:60 to 100. The ratio for “general office workers”—those who use a standardized suite of applications, need access to file and print servers, and use host-based legacy applications—is 1:125 to 300. As stated in the 2003-2008 Strategic Plan for Information Technology, a reasonable level of staff support to meet student, faculty, staff, and administrative demand can be based on Full-Time Equivalent Student (FTES) for students and Full-Time Equivalent (FTE) for faculty, staff, and administration. The ratio of 1:300 is used as a measure of need, because of the range of abilities, access needs, and application uses among all potential users. For this model, the 2008-2009 headcount data was used.

Student users	= 17,478
Faculty users	= 636 (224 full-time + 412 adjunct)
Staff users	= 796
Administrative users	= 22
Total potential users	= 18,932 ÷ 300 = 63 optimum staffing

The Instructional Technology Committee proposes another model which determines staffing needs based on the number of computers supported. This model uses a ratio of one support staff per 30 computers. In our environment there are 53 student labs averaging 26 computers per lab, open labs need at one lab assistant present during all open hours. These labs also have high levels of usage

requiring a significant degree of technical support. In addition support is needed for faculty and administrative staff computing.

Student computers	= 1,492
Faculty computers	= 361
Administrative & staff computers	= 289
Total computers	= 2142 ÷ 30 = 71 optimum staffing

Whether we choose the former or latter model, current support staff is not adequate. It is recommended that at the very least two additional positions (Sr. Computer and Network Support Specialist and Web Architect) be added to the IT department in order to be able to provide the service level needed by the college. These two positions play a major role in the overall performance of the department so the college would benefit greatly by adding them.

CURRENT ORGANIZATIONAL STRUCTURE:

The faculty, staff and students currently receive support from three different sources: Information Technology, the departmental labs, and the Teaching Learning Center (TLC).

CURRENT STAFFING:

ADMINISTRATION

The Manager of College Information Systems supervises the Information Technology department and oversees the technology and procurement and contracting. The IT 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 end user support.

Total technology administration = 1

TECHNICAL SUPPORT PERSONNEL

The following TSS personnel provide technical support.

- (1) – Senior Computer & Network Support Specialist
- (1) – Data Communication Specialist
- (3) – Computer & Network Support Specialist
- (2) – Asst. Computer & Network Support Specialist
- (1) – Computer Technician

In addition to the above responsibilities, IT is also responsible for the management of five other departments – (Instructional Multimedia, Reprographics, College Telephone Operators, Employee Cub Card ID and All College Computer Lab).

Total technical staff = 8

TEACHING LEARNING CENTER (TLC)

The TLC is supervised by the Director (currently vacant) and staffed with one computer and network support specialist and an Office Assistant. The TLC is a multifunctional site that provides training and support including multimedia technology development, the use of the Internet, and the use of software (including course management software). The TLC is the center of technology training activities with 12 computers available for both faculty and staff. There are trainings available on the common applications regularly but only a hand full of people take advantage of them so there's a need to figure out how that can be improved.

Total technical staff = 1

INSTRUCTIONAL MULTIMEDIA CENTER (IMC)

The IMC is supervised by a Senior Instructional Media Specialist and staffed with one Office Assistant and one Electronics Technician (only one technical staff).

Total technical staff = 1

DEPARTMENTAL STAFFING

Departmental computer-equipped facilities are staffed as follows based on information provided in December 2008. This includes 36 of departmental labs staffed by 10 FTE (This represents the FTE for technology classes of instructional assistants) of staff reporting to academic departments.

Total departmental lab support staff = 10

TOTAL COLLEGE TECHNICAL SUPPORT = 21

CONCLUSION:

Given the amount of responsibility for the IT department, I think it is easy to see that the current staffing level is not adequate to provide the support needed by the college. The trend has been that more and more functions (new and existing) are being moved under the umbrella of Information Technology so there's an urgent need to review this situation and the level of support expected by the college and make adjustments as needed.

Program's Strengths and Weaknesses

STRENGTHS:

1. The IT staff is dedicated to the educational mission of the college.
2. The IT staff is knowledgeable and experienced.
3. The IT staff continues to develop a supportive, team-building climate.
4. The college is in the process of adopting a Desktop Computing Plan involving BladePCs and PC Virtualization that has the potential for reducing the demands for technical support and improve total cost of ownership (TCO).

WEAKNESSES:

1. The IT staff does not share a common work area which hinders communication and teamwork.
2. Most of the IT staff share their work space with a number of networking equipment which generates a lot of noise which creates a very unpleasant work environment.
3. The IT staff lacks the space necessary to support the growing expectations of its clients and the growth of the inventory of computer equipment. We need additional space for staging the equipment inventory (new and existing) and to setup work tables for computer repairs and setups.
4. The IT staff lacks the personnel necessary to support the growing expectations of its clients and the growth of the inventory of computer equipment.

5. The IT staff lacks the personnel and training necessary to support the growing number and complexity of software applications requiring support.

6. The college has implemented a PC Desktop Upgrade Plan but has been unable to follow it due to lack of funding which in turn generates a higher demand for technical support.

Program's Opportunities and Challenges

OPPORTUNITIES:

1. The convergence of data, voice (telephone), and video will provide an opportunity to reduce the size and complexity of the network infrastructure.

2. The robustness and reliability of wireless technology will provide an opportunity for greater mobility for students, faculty and staff.

3. The integration of computer and media technology will provide an opportunity to enrich the classroom learning experience and contribute significantly to the success of our students.

4. The new Fiber infrastructure will provide an opportunity to increase the capacity of the network to improve the existing applications and enable the deployment of new ones like Video surveillance, Wireless (campus wide) and video broadcasting to name a few.

5. The Storage Area Network (SAN) is modular so it can easily be scaled up to provide much needed services like offsite data replication for disaster recovery, a network drive for all employees (including a share collaboration space for departments) and students, more server virtualization, higher email storage limit, etc.

CHALLENGES:

1. The absence of financial plans and financial resources to support the routine replacement of aging computers and other technology resources including hardware and software. No funds have been allocated for the replacement of aging computers for the last few years which leads us to work with a high number of inadequate computers (at least 50%) in labs, faculty and staff desks and in the data center. This creates extra work for the IT department since more things fail with older systems, productivity goes down since there's more down time for the users and computers work slower with newer applications.

2. The need for adequate assessment/training and user support for students and faculty including the support for distance education to facilitate the optimum use of technology resources for teaching, learning, and instruction.

3. The need to develop a disaster recovery and business continuity plan.

4. The convergence of data, voice (telephone), and video will increase the need for system resiliency and improved system security.

5. The proliferation of easily installed unauthorized wireless devices will increase the need for improved network security.

6. Reliance on one-time state funding continues to make it difficult to develop long-term plans for major technology projects such as the network infrastructure.

These challenges, if not addressed, can have adverse affects in the quality of the services provided by the college which can lead to the loss of student enrollment to other colleges that have found a way to address these needs.

Evaluation of Program's Performance

The efforts of the IT department to achieve its mission have had good results but our efficiency and effectiveness is hampered by the limited financial and human resources available. Each of the following areas will be examined and recommendations provided:

Help Desk:

The operation of the Help Desk can be described as stable but continues to be stressed. We can resolve most issues in a timely fashion but we normally have a backlog of incidents. The following are the most serious issues that need to be addressed:

1. The time required to install new and upgraded software in the instructional labs does not meet the needs of the instructional program due to limited licenses available on our Desktop Management System (Altiris).
2. The time to install or repair a desktop computer is not responsive enough for the needs of the faculty and staff. This is due to the need to migrate the data stored on the PCs as apposed to the network.
3. The time required to install new network connectivity does not meet the needs of the instructional program.

The following actions are recommended to address the above concerns:

1. Acquire additional licenses in order to image multiple labs simultaneously without having to micromanage the server for available resources.
2. Acquire additional Storage Area Network (SAN) so we can migrate faculty/staff data storage from the local desktop computer to the network which will significant reduce the time needed to upgrade or repair a faculty/staff desktop computer because it will not be necessary to backup the local desktop computer.
3. Continue to implement the Desktop Upgrade Plan which creates a more homogenous and current inventory of desktop computers used by the student and faculty/staff. A less complex desktop environment will require fewer resources for support than the current one.
5. Continue to train our users on how to submit and monitor requests for services from the Help Desk so we can reassign our staff currently taking phone and email requests to actually pickup and resolve requests in the Help Desk queue.

6. Continue to improve the IT web site to include more client documentation and self-help tools for use by the faculty/staff which will allow the technical staff to focus on the more complex support problems.
7. Investigate the possibility of augmenting the IT staff to address the increased demand for IT support due to increase in computers in the new buildings and satellite locations. This would contribute significantly to the reduction of the Help Desk backlog.

Technical Training and Support Needs:

Information Technology has an ongoing need for technical training and we have been able to receive some through Staff Development. However, due to budget issues, we have not been able to send anyone to any training that exceeds the \$500 limit in the last few years. Some important training include our Desktop Management solution from Altiris, VMware's server virtualization, Lefthand's Network Storage Area Network (SAN) solution and Mac computer and application support.

We acquired and deployed these systems to the best of our abilities with the support from other colleges within the District but could easily be missing out on some features and not getting the most out of them due to the lack of adequate training. The pain is also felt by our Mac users when we are not able to support them adequately due to our lack of expertise with Mac computers.

IT Staff Needs:

As I explained in the "Characteristics, Performance, and Trends" section, the IT department is not staffed adequately. We have one less person than we did five years ago and the numbers of computers supported have doubled, the services provided and the number of faculty and staff supported have increased substantially. Furthermore, the bond construction has also added at least 30% of work load to our day to day work load.

The responsibilities for the IT department have almost doubled in the last few years and the staff to support them has actually been decreased by one. The college still expects and demands timely responses to all work requests which is completely understandable from the user's point of view but unrealistic and unreasonable from a practical point of view since the resources are just not available. We are doing everything we can to keep up with the ever growing demand for IT support but it is getting more difficult as we continue to grow disproportionately.

We are leveraging new technology as much as possible to automate where possible, assist users remotely, provide more self service tools, etc. but unfortunately that can only go so far. We have a need for additional human resources as soon as possible so we can provide the best service possible in a timely fashion so we can become a more effective and efficient educational institution.

Program's 3-5 Year Strategic Directions

1. Upgrade the network infrastructure to 10Gigabit (building to building and in data center) and 1Gigabit to the desktop from the 10/100 Megabit that we have now.
2. Deploy wireless college wide to allow students, faculty and staff to have access to college computer and Internet resources anywhere on the campus without physical location restrictions
3. Transition from traditional PCs into BladePCs and PC Virtualization.

4. Coordinate with DO and other colleges to look for more opportunities leverage our buying power to get better pricing when acquiring hardware and software commonly used across the whole District.

5. It is expected that there will not be a significant increase in Help Desk incidents but the nature of the incidents will become increasingly less routine and more complex.

6. There will be a need to develop and provide improved Help Desk self-help tools for routine incidents.

7. There will be a need to significantly increase the training of the staff of Help Desk to improve their ability to deal with less routine and more complex incidents.

Goal #1 Short term (1 year) Status: in progress

Improve IT Help Desk services

Objective #1.1 Status: in progress

Route all work request through the new help desk solution to ensure that all requests are handled in the first come first served basis

Objective #1.2 Status: in progress

Encourage all users to use the new web interface to release IT staff to work on the requests by eliminating the need for them (IT staff) take requests via phone or email and then entering them into the new help desk for the user.

Goal #2 Long term (2-5 years) Status: in progress

Upgrade core network infrastructure to enable new technologies

Objective #2.1 Status: in progress

Develop capacity to anticipate and adapt to rapid change in instructional or administrative uses of technologies

Existing Resources

Prop J bond has ear marked funds for this project

Resources Needed: Additional Budget

Object Code: 6400 EQUIPMENT

Required for How Long: Ongoing

Requested Amount: \$

Description:

1/10G switches to connect buildings at 10Gigbytes and deliver 1Gigabyte to computer desktops

Supporting Rationale

This will enable the addition of new services needed like video on demand, security cameras, campus wide wireless, data distribution for DR, etc.

Resources Needed: Additional Technology

Technology Classification: Computer Hardware

Requested Amount: \$

Description:

Reason:

Location:

New or Replacement: Replace Existing

Services Required: Electricity, Internet Access, College Network Access, Hardware Support

Objective #2.2

Status: in progress

Acquire adequate platforms and bandwidth to achieve instructional and administrative mission of the college

Objective #2.3

Status: in progress

Create second Data Center to eliminate Administration building as a single point of failure for campus systems

Goal #3

Long term (2-5 years)

Status: in progress

Augment IT staff to provide adequate support to the College and satellite locations.

Objective #3.1

Status: in progress

Build business case to justify the need for a B shift Sr. Computer and Network Support Specialist (supervisor) and a Web Architect

Resources Needed: Additional Personnel

Position Classification: Classified Staff

Required for How Long: Ongoing

Position Description:

Sr. Computer and Network Support Specialist and Web Architect

Estimated Cost: \$

Supporting Rationale:

These two positions are needed to provide the support level needed by the college to function properly

Objective #3.2 Status: in progress
Generate reports showing amount of work performed by department in relation to the current staff to support request

Goal #4 Short term (1 year) Status: in progress

Improve business continuity and disaster recovery

Objective #4.1 Status: in progress
Acquire modular network storage that can grow with the needs of the college

Resources Needed: Additional Technology

Technology Classification: Computer Hardware

Requested Amount: \$ 130000

Description:

Storage Area Network (SAN) from Left-Hand Networks

Reason:

Distribute data around the college to eliminate Administration building as a single point of failure for data storage and automate the backup of critical data to an off site location (LAHC).

Location:

New or Replacement: N/A

Services Required: None

Objective #4.2 Status: in progress
Provide network storage to all network users (students, faculty and staff) that can be backed up centrally to minimize chances for data loss

Objective #4.3 Status: in progress
Distribute data around the college to eliminate Administration building as a single point of failure for data storage

Objective #4.4 Status: in progress
Automate the backup of critical data to an off site location (LAHC)

Goal #5 Long term (2-5 years) Status: in progress

Extend wireless access campus wide for accessibility to electronic technology

Objective #5.1 Status: in progress

Provide an effective learning environment for all students which allows them to have access to college computer and Internet resources anywhere on the campus without physical location restrictions

Resources Needed: Additional Technology

Technology Classification: Non-computer Equipment (e.g., copier, etc.)

Requested Amount: \$ 377000

Description:

Wireless Controllers and Access Points

Reason:

Allow students and staff to have access to college computer and Internet resources anywhere on the campus without physical location restrictions

Location: MDF room in most buildings depending on # of APs

New or Replacement: New Installation

Services Required: Internet Access, College Network Access, and Hardware Support

Goal #6 Long term (2-5 years) Status: in progress

Provide a reliable technology environment in the data center

Objective #6.1 Status: in progress

Introduce new technology initiative while existing operations are maintained and upgraded

Objective #6.2 Status: in progress

Standardization of computer equipment and applications will improve level of support and total cost of ownership (TCO) at the college

Goal #7 Short term (1 year) Status: in progress

Provide a learning environment that supports technology

Objective #7.1

Status: in progress

Acquire additional computer storage in the Data Center to provide network storage for student, faculty and staff that can be accessed from any computer on campus

Resources Needed: Additional Technology

Technology Classification: Computer Hardware

Requested Amount: \$ 64000

Description:

Storage Area Network (SAN) from Left-Hand Networks

Reason:

This setup will allow students and staff to store and access their data from anywhere on campus and it can also be backed up by the IT department.

Location: Data Center

New or Replacement: N/A

Services Required: Electricity, Internet Access, College Network Access, Hardware Support

Objective #7.2

Status: in progress

Increase the college's capability to serve individuals and organizations, using distance-learning strategies and technology

Individuals Who Participated in Developing this Plan

1. Mendoza, Juan