



Technology Plan

2011-2016

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Introduction

The purpose of this Technology Master Plan (further called The Plan) is to establish technology guidelines that will help to direct El Camino College Compton Educational Center as it moves into the future. This Plan contains procedures, visions and recommendations for technological enhancements within El Camino College Compton Educational Center that will occur over the next five years. However, this Plan should be viewed with a degree of flexibility that will certainly be impacted by rapidly evolving technology and fluctuating funding issues.

The El Camino College Compton Educational Center Technology Committee served as initiator and primary source of information for this Plan. The Committee's makeup allowed for easy access to several of the most technologically dependent areas on campus and provided a significant source of information and recommendations for the structure and body of this Plan.

This Plan focuses on three major elements that are crucial for the success of any technology master plan; organization, processes, and technology.

Technology

The Plan examines the current status of technology on the El Camino College Compton Educational Center campus. The Plan outlines budgeting requirements that are necessary to keep the technology infrastructure current and evolving.

Procedures

The Plan contains administrative procedural recommendations that should be implemented and supported in order for the El Camino College Compton Educational Center to maintain the high standard of education it currently provides.

Organization

The Plan includes future staffing needs that require consideration to support the El Camino College Compton Educational Center's growth in technology.

In effect, this Plan is a "living document" that serves as the strategic guide for current and future technology for El Camino College Compton Educational Center.

The plan should be reviewed every year. The Technology Committee should submit a report to the El Camino College Compton Educational Center based on this review. The report should articulate the recommendations, implementation strategies, and an assessment of efforts.

Committee Membership

Dr. Rodney Murray, Dean of Career Technology & Education, Math & Science

Rudy Ramos, Co-Chair, Director of MIS

Brent Kooiman, Instructor, Automobile Collision & Repair

Dr. Michelle Priest, Instructor, Biology

David Maruyama, Instructor, English

Christopher Richardson, Instructor, Physical Education

Dovard Ross, Instructor, Business

David Simmons, Technician, MIS

Dale Ueda, Instructor Air Conditioning & Refrigeration

Andree Valdry Instructor, Library Information

John Wagstaff, ECC Information Technology Director

Mission

The Technology Plan for El Camino College Compton Educational Center is guided by the El Camino College Compton Educational Center's mission statement, "... El Camino College Compton Educational Center is committed to offering a comprehensive range of transfer, vocational, cultural, and community education, and to facilitating community and economic development. The El Camino College Compton Educational Center provides support programs and services to assist students and the broader community in gaining access to higher education and achieving success in their chosen endeavors..."

The Plan details the expansion of technology within El Camino College Compton Educational Center and establishes the current environment and future plans to be implemented. The Plan must work in conjunction with the Facilities Master Plan, the Educational Master Plan and the other planning documents created by El Camino College Compton Educational Center as well as Information Technology Services unit and program reviews. To that end, the following goals were established:

- Provide direct, universal and user friendly access to information and instructional technologies by students, faculty, administrators and staff to facilitate improved teaching and learning.
- Promote student access, success in the pursuit of their educational and life career goals.
- Improve communication, collaboration and coordination among those who enable students, faculty and staff to make the most effective use of technology resources.
- Sustain and improve instructional, student and administrative support services
- Promote alternative methods of education that integrate technology into instruction.
- Invest in faculty and staff development to increase use and application of technology resources.

The successful implementation and completion of this Plan will establish a strong technological presence at El Camino College Compton Educational Center and give the faculty and staff the necessary tools to incorporate technology into their academic and administrative business practices. The goal is to provide a productive workplace and an exemplary educational environment where our students receive an education that is current both in content and technology.

Technology Definition

In this Plan, the term technology refers to the use of hardware, software, and processes that support educational and informational technology. It also describes the equipment necessary for the integration of voice, video, data, and multimedia production and presentation in teaching, learning, and managing the educational process. Technology includes, but is not limited to computer labs, media classrooms, distance learning facilities, desktop video conferencing, Internet use, and communication via email and voice mail. The Plan focuses on the use of computers and computer peripherals, local and wide area communication networks, local and long distance digital databases, and online information systems.

Technology Vision Statement

El Camino College Compton Educational Center will stand at the forefront of community colleges in utilizing technology to provide students with the greatest opportunity for achieving their educational goals; faculty with the resources and support necessary for continued excellence in instruction; administrators and staff with the most efficient and effective work environment for overseeing daily instructional operations; and the community with effective, efficient, and timely responses to their need for information, training, and instruction.

Planning Principles

Guiding principles for El Camino College Compton Educational Center technology include general planning principles, project prioritization principles, and project design principles.

General Planning Principles

1. Technology is to support teaching and learning.
2. Funding should be available for purchasing academic hardware and software to utilize the latest technology for instructional and instructional support environments and to responsibly replace old or dated technology.
3. Faculty, students, and staff should have easy, well-supported electronic access to data and information necessary to perform their functions, regardless of their location.
4. The El Camino College Compton Educational Center will use proven technologies in innovative ways to further its mission.
5. Technological applications should provide increased efficiency and effectiveness while maintaining or improving the quality of support functions.
6. Technological applications should be planned, developed, shared, and implemented for multiple campus locations.
7. A balance should be maintained between investing in entry-level technology and advanced technology.
8. Technology products, services, and projects should be measured and supported based upon their ability to benefit strategic objectives.

Technology Project Prioritization Principles

In prioritizing technology projects, preference will be given to:

1. projects with clearly defined benefits for the faculty/student learning and teaching environment;
2. initiatives that facilitate collaboration among programs/departments for the design, implementation, and the use of common applications;
3. initiatives meeting common objectives, yet capitalizing on local autonomy and using local strengths;
4. projects that further faculty, student, and staff technological literacy;
5. projects that generate new revenue;
6. projects that promote security and facilitate compliance with regulatory mandates; and;
7. projects that free up resources.

Project Design Principles

1. Data should be collected once, electronically, as close to its point of origin as possible.
2. New applications should be easier to use than the manual or automated systems they replace.
3. The need for clerical or manual intervention should be minimized with the adoption of new applications.

Issues

This section of the Technology Master Plan (further The Plan) focuses on current issues to be addressed with technology and issues impacting the implementation of technology.

Data systems and networking

Facilities

Current Environment

The physical plant encompasses all of the structures and equipment owned or leased by the Compton Community College District. This organization is vital to the success of this Plan. Certain technological considerations must be included to support the future technology growth of the El Camino College Compton Educational Center. Since the facilities of the El Camino College Compton Educational Center are subsumed in their own Master Plan and it would be redundant to go into great detail. Below is a list of requirements necessary for the Technology Master Plan to be successful:

- Adequate electrical power to all classrooms, offices, laboratories, server rooms, and data closets.
- New cable infrastructure to the row buildings that meets best standards and delivers the same bandwidth that is available to the VocTech, Math Science and new LRC.
- Power receptacles that meet building and fire codes in type, quantity, and location.
- Proper environmental conditions for heating, ventilation, and air conditioning.
- Security measures such as secured classrooms, key control, and video surveillance.
- Sufficient storage to house computer equipment and peripherals.
- Office locations for Technology Team Staff
- Category 6 data cable to all classrooms and computer labs.
- ADA compliant accessibility for persons with disabilities.

Just as all of the Master Plans of the El Camino College Compton Educational Center should be focused on the same goal, each department within the El Camino College Compton Educational Center must work together to achieve these goals.

Future Plan

- Install new single and multimode fiber optic cable to all of the row buildings.
- Re-dress the category 5 and 6 data cable in the row building Intermediate Distribution Frames (IDFs) and provide adequate HVAC.
- Install Category 6 data cable to all classrooms and computer labs.
- Continue to address facility issues through the Facilities Master Plan keeping in mind the above requirements for the success of the Technology Plan.

Technology Infrastructure

The technology infrastructure is a network of physical connections, hardware, and software that provide for the transmission and reception of voice, data, and video information and services. Planning for expansion of this infrastructure is critical to the El Camino College Compton Educational Center's academic and administrative business practice. An adequate and reliable technology infrastructure is essential to ensure that students and faculty

have the best opportunities available for teaching and learning and that staff has the latest in technology to help streamline the administrative process.

Current Environment

El Camino College Compton Educational Center has an integrated and converged technology infrastructure; integrated to utilize uniform technology and converged to support the transmission of video, voice, and data signals over the same media. The Management Information System (MIS) building is the main distribution frame of a star typology network infrastructure. The cabling system provides for an integrated and converged infrastructure that hosts data, voice, video, safety/security, and energy management systems. The backbone consists of single and multimode fiber optic cable. Except for the “row buildings” the inter-building is Category 5 twisted pair cable. The row buildings are a special concern because they are connected to the main infrastructure via a mixture of fiber optic and Category 5 cable that has been thrown from rooftop to rooftop and is lying on the roof unprotected from the elements.

The El Camino College Compton Educational Center network utilizes Ethernet local area network technology capable of data transmission speeds up to 1 Gbps (gigabit per second) between the buildings and 100 Mbs inside the buildings, except for the row buildings where intra and inter-building data speeds are much slower. The El Camino College Compton Educational Center is connected to the Internet via CENIC (Corporation for Education Network Initiatives for California) using a DS12 circuit that is capable of 1 Gbps data transmission speed. The El Camino College Compton Educational Center is also connected to the Los Angeles County Office of Education (LACOE) via a T-1 circuit (1.5 Mbps) in order to access LACOE’s PeopleSoft Financial System and GLINK Human Resources System. It is connected to El Camino College via 3 dedicated T1 circuits. These circuits provide secure access to the Compton Community College District’s ERP systems and the bookstore. When the application for rebates from the California Teleconnect Fund is processed through the local utility, the El Camino College Compton Educational Center will double the bandwidth of these circuits from 4.5 Mbps to 9 Mbps.

The El Camino College Compton Educational Center’s technology infrastructure provides many advantages and benefits. First, the uniform cable plant enables the college to transmit voice, video and data over the same wire. Second, it allows the El Camino College Compton Educational Center to add new technology without pulling separate cabling. Third, it allows the infrastructure to evolve without the need to forklift a completely new system. For example, the El Camino College Compton Educational Center has implemented a unified messaging system that combines electronic mail, voice mail and fax services into one system.

The El Camino College Compton Educational Center also has a robust and secure intranet that provides access to online data, office productivity tools and applications that improve workflow. New online applications have been developed with a web browser “look and feel,” because Microsoft’s Windows software has become the dominant desktop operating system. For example, electronic mail can now be accessed using a web browser from home or anywhere in the world. There are also administrative applications such as the web portal that allows students to apply for admission, to register for classes, add a course, drop a course, and to check their academic history from any computer on campus or off.

During the partnership with El Camino College the El Camino College Compton Educational Center uses ECC’s Datatel Colleague and its Enterprise Resource Planning tool (ERP) and

operates under its business practices and work flows. The data is stored on El Camino College's data servers and will remain there forever. Before the partnership began, El Camino College Compton Educational Center purchased the Microsoft SQL version of Datatel Colleague. The El Camino College Compton Educational Center's legacy data prior to August 22, 2006 is converted and exists on its Colleague servers. In the last 12 to 18 months of the partnership, El Camino College will work with El Camino College Compton Educational Center to complete the deployment of a fully integrated Colleague ERP. On the day re-accreditation is achieved El Camino College and Compton El Camino College Compton Educational Center will separate and Compton College's Datael ERP will go live.

Future Plan

- The El Camino College Compton Educational Center's technology infrastructure will support the El Camino College Compton Educational Center's mission by providing access to the voice, video, and data network services including Internet access and the latest technologies that support teaching and learning.
- Complete a five year plan for integrating the El Camino College El Camino College Compton Educational Center ITS operations and separating upon the re-acquisition of accreditation. This Plan should have sections describing the staffing and organization of the Compton's ITS unit as well as steps leading to the separation of El Camino College Compton Educational Center's business practices and work flow from those of El Camino College.
- Upgrade and expand the technology infrastructure to support streaming video and other bandwidth intensive applications.
- Establish secure network connections for all off campus sites.
- Expand the functionality of the El Camino College Compton Educational Center's Cisco IP Telephony switch to include the reverse 911 system and deployment of the "soft" features such as IP communicator and IP Call El Camino College Compton Educational Center.
- Operate network systems and services that are highly integrated with El Camino College's system so that all users, students, faculty and staff will experience the same range and quality of service regardless of location, including four-digit dialing, integrated address books, and seamless active directory login accounts.

Online Student Services

Current Environment

At the onset of the partnership, El Camino College extended its academic, administrative, and student service to El Camino College Compton Educational Center. Consequently, the El Camino College Compton Educational Center's student services are available online to the students at both campuses. These services include application, registration, adding and dropping courses, fee payment, financial aid award letters and status, counseling, tutoring, grades and transcripts. Students can also use the portal to access the El Camino College Compton Educational Center's online public access catalog for books, periodicals, and digital serials. Students access these online services via a web-based intranet portal called MyECC. During the first month of spring semester 2009 the portal logged over 260,000 student users.

The portal was migrated to a new Datatel software solution that utilizes Microsoft Share Point technology. The cutover to the new portal did occur at the end of spring semester, 2009.

Future Plan

- El Camino College will help the El Camino College Compton Educational Center implement online degree audit. This would allow students to retrieve information on demand based on their major and the courses they have completed. It will be a valuable tool for students to use when planning their class schedules and will help to reduce traffic in Admissions and Counseling.
- Deploy an online counseling resources, such as chat room, to help students select courses and draft their educational plans.
- The El Camino College Compton Educational Center will implement a document imaging system capable of creating a uniform environment of informagtion storage and retrieval that integrates with other file formats including Datatel Colleague. The goal should be increased productivity through the creation of paperless environment that emphasizes ease of information retrieval and file security.

Remote Access for Faculty and Staff

Current Environment

All El Camino College Compton Educational Center students, faculty, and staff have access to the same array of portal (MyECC) based services from off campus that they have when working on campus. The portal is available from any web based internet service point anywhere in the world. With the launch of the new Share Point portal in late spring semester 2009, students and faculty will see their class schedules displayed in exchange/outlook calendar format. The data will refresh automatically from live data upon the login. Student course adds and drops will also be visible in the next login. Faculty can use the portal to post grades. Students and faculty will have a space for each course being taught. The space will support threaded discussions, assignment drops, document libraries, and announcements specific to that course section. The portal will allow for rich customization. Students against whom holds have been placed because they owe fees or fines will see an automated notification each time they log on to the portal. Outlook Web Access, the portal based email engine allows users to create custom personal folders and special filters for routing inbound email. The portal is protected by a spam filter that users can customize with their own rules to insure that the systems blocks unwanted email and allows wanted mail through the filter.

Future Plan

- El Camino College Compton Educational Center's IP Telephony system will be upgraded to allow for the same features and functions that are available to users at El Camino College, including reverse 911 system and deployment of the "soft" features such as IP communicator and IP Call El Camino College Compton Educational Center.
- Virtual Private Network (VPN) technology will be utilized to allow authorized staff using college issued and support PC workstation or laptops to access the El Camino College Compton Educational Center's network remotely. To support these types of access the El Camino College Compton Educational Center should deploy Cisco's Clean Access" appliance.

Electronic Mail

The use of electronic mail (email) as a means of communications has expanded rapidly over the last decade. Email that was once restricted to the desktop can now be pushed all the way to the edge to reach hand held devices such as iPhones and Personal Digital Assistants (PDAs). Electronic mail has become an essential collaborative tool that allows colleagues to stay in touch, teachers and students to easily communicate, and is an excellent way to provide information to large groups of people such as the employees within the El Camino College Compton Educational Center.

Current Environment

The El Camino College Compton Educational Center email system utilizes Microsoft Exchange Outlook. ITS gives all students, faculty, and staff email accounts. Services include personal and shared calendars and contacts and to-do lists. Off campus users use Outlook Web Access which has most of the features and functions of Outlook.

The El Camino College Compton Educational Center's email system recognizes the compton.edu domain name. The "compton.edu" name has been licensed with EDUCAUSE to prevent other entities from buying the name during the partnership.

The El Camino College Compton Educational Center has adopted El Camino policies for acceptable use of computers by students and staff of the El Camino College Compton Educational Center's computing facilities. These policies are a strong first step in providing guidelines and structure for overall use of computing resources, but need to be updated.

Future Plan

- To prevent the 'compton.edu' domain name from being lost, El Camino College renewed the license with EDUCAUSE when the partnership began in August, 2006. The El Camino College Compton Educational Center's domain name continues to appear in all outbound email and will be available when the El Camino College Compton Educational Center regains its accreditation.
- El Camino College Compton Educational Center will continue to participate in district discussions concerning decisions and improvements throughout the evolution of our email system.
- Update the El Camino College Compton Educational Center's acceptable use policies for students and staff.

Web Site Access and Development

Institutions of higher learning are being confronted by a technology change far different in origin and scope than anything previously experienced. Traditionally educators have brought technology changes and opportunities to their students. This was true of such innovations as the low cost personal computer, email, the internet, and web browsers. The impact of these technologies on the interaction of students and faculty with each other and with the subject matter being studied has been the central concern of the last decade. Integrating technology into the curriculum, constructing and deploying the technology infrastructure to support the new curriculum, increasing the technical literacy of the students and the faculty are all issues that have been intensely contemplated and discussed.

Web 2.2 is completely new. Web 2.2 is upon us now and the students who are bringing Web 2.2 into the classroom. Web 2.2 is connecting users to distributed computing and social networking that incorporates personalized services with grouped human interaction. This technology, along with virtualization, is giving rise to the mobile student with the potential to profoundly alter the instructional interaction of students and faculty. For the first time in history students themselves are using web-based internet tools such as Facebook, to create social structures consisting of nodes (individuals or organizations) that are tied to each other by one or more specific types of interdependency; in this case the need to discuss and complete subject matter related assignments. These nodes might consist of other students in the class. But they can also include other individuals or acquaintances including content experts unknown to the instructor teaching the course. The outcome could be as perplexing and threatening to academic integrity as fascinating and exciting.

Current Environment

The El Camino College Compton Educational Center's technology infrastructure is completely unprepared for Web 2.2 and the mobile students and their socially networked associates. While the outcome is uncertain, it is clear that these new users and their applications will put enormous pressure of the El Camino College Compton Educational Center for reliable and efficient access to on-campus web based services. Much of the activity can be focused on the services, features, and functions presented in the internet and intranet sites. The new El Camino College Compton Educational Center Portal has great potential in helping students shape their collaborative educational environment. The El Camino College Compton Educational Center is working with El Camino College to create portal-based course sites that contain areas where faculty and students can post announcements, drop assignments, check in and check out documents, and engage in treated discussions. These features will not only enrich the educational experience, they may contribute to increased achievement and retention scores.

The El Camino College Compton Educational Center is moving toward implementation of WiFi networking for student and faculty access of online resources, both local and web-based. Priority locations will include student use areas, such as the Library, LRC, Math Science, VocTec, Writing El Camino College Compton Educational Center, and Student Lounge.

Future Plan

- In order to assure reliable, 24X7 – 365 day a year uptime, the El Camino College Compton Educational Center must invest in additional backup hardware and software.
- El Camino College Compton Educational Center will continue to work with ITS staff to integrate Web services with the student information system.
- El Camino College Compton Educational Center will include a full-time Webmaster in its staffing plan.
- Since the Web is a public medium and the easiest way for the general public to assess the El Camino College Compton Educational Center's level of technology, El Camino College Compton Educational Center will make a concerted effort to keep the technologies in use on its Web site as current as possible. Examples include:
 - Web cameras that provide real-time views of the campus and events
 - Virtual tours that invite potential students to “visit” the campus

- The Web must be ADA compliant
- El Camino College Compton Educational Center will implement WiFi access in priority areas as soon as networking upgrades permit.

Backup Procedures and Disaster Recovery

ITS has a plan for backing up and protecting the El Camino College Compton Educational Center's mission critical databases. The storage Area Network (SAN) is redundant and has the capability to automatically switch to backup hard drives when they fail. Data is incrementally backed up to tape media nightly and a full backup is made each week. This backup is taken off-site, off the fault line to a vaulted and secure storage location. However, the SAN is approaching "end of life" which means repair parts will no longer be available. In addition, it is nearly out of storage space. This presents a problem because ITS is attempting to persuade administrative users to move personal data from their PCs to the SAN. Most of these people are keeping vast amounts of sensitive data on their local hard drives. It is unlikely that any of this data is backed up. There is enormous potential for loss due to hardware failure, corruption, and theft.

In addition, the El Camino College Compton Educational Center lacks a disaster recovery and security plan. If there is an event which seriously damages the main IT building, it could take the El Camino College Compton Educational Center several weeks or even months to recover. There is a similar risk if the El Camino College Compton Educational Center suffers a serious security breach involving student data, such as names addresses and social security number. The Sarbanes-Oxley Act requires the institution to send certified mail to anyone whose personal information might have been exposed. Such a mass notification could cost the El Camino College Compton Educational Center hundreds of thousands of dollars. The El Camino College Compton Educational Center needs a plan that describes methods of forensic investigation and appropriate responses.

Future Plan

- Upgrade and expand the Storage Area Network
- Begin a campaign to increase staff awareness of the importance of data security and require offices accumulating sensitive data to use the SAN.
- Draft a Disaster Recovery Plan
- Involve the El Camino College Compton Educational Center in a security analysis of its data resources and use the results to draft a Security Plan.

Equipment and Software

Computer Replacement, Upgrade and Maintenance

Given the El Camino College Compton Educational Center's increasing dependency on technology, keeping it current is a major budgetary challenge. Inventories must be accurate and current to support decisions about what to upgrade and replace during any given fiscal year. Remote deployment and management technologies should be used to reduce the time required to replace old machines and maintain the installed base. The

El Camino College Compton Educational Center should avoid keeping workstations in the active inventory whose warranties have expired. This is a difficult decision because PC workstations are usually operational far longer than their useful life.

Current Environment

The El Camino College Compton Educational Center provides all faculty and staff with a computer for their work area. There are standards to guide acquisition of new computing systems. However, allocating adequate funding continues to be a challenge and the faculty and staff inventory of PC workstations is badly aged. The El Camino College Compton Educational Center should consider becoming more “green” through the introduction of virtual desktop and server technology. This would dramatically reduce the cost of keeping this technology current as well as the overall campus carbon footprint.

Part-time employees and adjunct faculty have access to campus computers in a variety of ways. There are shared machines in most work areas. Open computer labs are available. Some of the academic divisions have created special work areas for their adjunct faculty.

The El Camino College Compton Educational Center has policies for distributing printers and other peripherals. Networked printers have been deployed in most workgroup clusters. As a rule, individual printers have been limited to those offices where shared printers are not practical

Future Plan

- Deploy the Altiris client to all staff and faculty PCs. Use this tool to obtain accurate on-demand inventories
- Negotiate a 5-year onsite parts and labor warranty for all new PC workstations. Negotiate a 4-year warranty for all laptop PCs.
- Synchronize the replacement cycle with the warranty periods.
- Establish a goal of replacing 2/3s of PC workstations with virtual desktop technology and 50% of the physical servers with virtual server technology.
- Outsource PC workstation maintenance.
- End the practice of recycling old PCs downward to staff and faculty.
- Create a central budget for technology

Procurement Procedures

Current Environment

The El Camino College Compton Educational Center is utilizing the same technology standards and purchasing procedures as those in practice at El Camino College. The purchasing procedures require IT Director’s approval for the acquisition of all technology. Users can reference the web site for the current standards. The web site also contains request forms for new and replacement technology.

Future Plan

- The El Camino College Compton Educational Center will continue to provide all employees with technology as needed.

- All technology related purchases must meet current standards
- All purchases must have prior approval of the Chief Information Systems Officer (CISO) or designee to ensure cost effectiveness and compliance with minimum specifications.

Media Equipment Replacement and Maintenance

Current Environment

Most classrooms have basic media equipment, including overhead projectors, pull down screen, and TVs & VCRs. The El Camino College Compton Educational Center is trying to convert to “smart” classroom with a network connection, a computer, and a video projector. Inadequate intra and inter building data cable is hampering conversion, particularly in the row buildings. The Vocational Technology El Camino College Compton Educational Center stands as an exception. These rooms are equipped with an instructor computer, network connection, projection and sound systems, and the ability to play different media ranging from videotape to DVD.

Future Plan

- The El Camino College Compton Educational Center will draft a schedule to convert all of its classrooms to smart technology through fixed or mobile installations.
- All media equipment will comply with the Americans with Disabilities Act and section 508 of the Rehabilitation Act of 1998.

Multimedia

Background

Multimedia is a broad term used to describe any combination of two or more of the following elements: text, image, animations, sound, speech, video, and computer programs deployed to enhance communication and understanding. Traditional technologies such as slide and film projectors, audio video tape players have converged onto PCs and hand held devices. Video conferencing, once an expensive luxury available to only few well funded community colleges in the country is now commonplace. The internet has replaced satellite uplinks and downlinks. Low cost video conference CODECs can convert any smart classroom into a multi-site high definition video conferencing network site. Unfortunately, many of the El Camino College Compton Educational Center’s classrooms cannot utilize this technology because they lack adequate data cabling.

Current Environment

El Camino College Compton Educational Center provides basic support for campus-wide use of multimedia as a medium where instructors can enhance student learning outcomes with Internet access, PowerPoint presentations, a CMS (Course Management System), and videos. Since not all college classrooms have video/data projectors, IT will set-up a limited number of video/data projector & laptop for multimedia presentations anywhere on campus. This service is provided to faculty, staff and students.

El Camino College Compton Educational Center recently embraced the idea of offering more advanced multimedia capabilities and access with the construction of the Instructional Technology El Camino College Compton Educational Center in the new

Learning Resource El Camino College Compton Educational Center. The newest capabilities provide faculty, staff and students, under supervision of a staff member an opportunity for multimedia production. The room is equipped with modern desktop computers, 4 video-editing computers, Internet access, digital and video cameras, projection and lighting systems, an audio system, cassette players, multimedia software applications and the ability to play and produce different media ranging from VHS to DVD.

Future Plan

- Staff development will deliver continuous training and support for integrating multimedia and presentation software into the curriculum.
- New classrooms and computer labs must support multimedia teaching and learning.
- The El Camino College Compton Educational Center needs to create a full time support position for the ITC.
- Develop standards for a standard portable smart media solution for the older buildings.

Distance Education

Background

According to California Community Colleges Distance Education Regulations and Guidelines distance education is defined as instruction in which the instructor and student are separated by distance and interact through the assistance of communication technology. Virtually every California Community College offers online learning and a growing number are offering full online degrees and certificates.

A handful of faculty and staff met and worked on the Technology Mission Statement and charge for the Technology Committee. The Distance Education Committee also sent out a survey to gather feedback from the faculty to help the efforts. The following focal points were adopted as the goals of El Camino College Compton Educational Center's Distance Education Committee to help promote and support a future Distance Education Program.

- Seek policies and procedure standards conducive to the District's Master Distance Education Plan
- Provide online developmental opportunities and resources El Camino College Compton Educational Center staff
- Develop programs for equitable compensation and support for those interested in development of Distance Education technologies

Current Environment

Since the partnership began, El Camino College Compton Educational Center's online instructional program has mirrored the El Camino College program. Both campus utilize the ETUDES course management system. Faculty is encouraged to consider retrofitting their traditional course offering to the online environment. The academic faculty and managers are responsible for setting standards that guarantee the same equivalency and rigor as to be had in the traditional classroom experience. A growing number of both fully online and hybrid courses are appearing in the schedule. While ETUDES requires all faculty to pass a

training course before activating their course shells, there is a need for additional training and support at the local level to adequately manage rapid growth and ensure quality.

Future Plan

- Continue to support the development of distance learning via web based course shell as well as video conferencing.
- The Distance Education and Technology Committees will work together to plan the future goals for distance learning opportunities. The outcome will consist of strategic planning and policy recommendations that will guide decisions about the courses, degree, and certificate offering migrating to the online environment.
- Create the full time position of Media Design Specialist to support faculty in their training and course development needs.
- All distance learning course offerings must be ADA and Bobby compliant.

Software Replacement, Upgrade, and Maintenance

Software applications are constantly adding new functionality and opening new opportunities that users are eager to adopt. Software is also limited by the hardware that it is run. Continuing developments in the technologies of information storage and retrieval open the door for increased opportunity for improved software development. Software instruction and multimedia applications will continue to be of intense interest to educators and the community. Furthermore, as computing networks evolve so does the ability and need of transmitting data more accurately and more quickly. To stay compatible with the newer systems, the El Camino College Compton Educational Center is often forced to upgrade software applications, as well as the operating system software that run them. This is to meet industry standards or remove a sanction on the El Camino College Compton Educational Center.

Compatibility is one of the main issues that all computer users and the El Camino College Compton Educational Center face. From different hardware platforms to different file/data formats, being able to share reliable/secure information is key to a successful organization, and so are the tools that enable cross platform compatibility. Having a single platform with standardized software reduces compatibility problems.

Software licensing is a concern with so many employees, students, and computers, as the risk of having unlicensed software increases dramatically. Due to faculty, staff, and students bringing in software from home and campus-wide network/interest access, controlling who installs software and what software is installed is impossible without the proper tools. Not all software is licensed equally. By installing software, the El Camino College Compton Educational Center is agreeing to abide by its terms and conditions. Everyday, the El Camino College Compton Educational Center enters into license agreements unbeknownst to them.

Current Environment

The El Camino College Compton Educational Center supports applications that run on Windows systems and provides limited support for Macintosh systems. Present support levels for these applications are as varied as the applications themselves. This is a common occurrence in a distributed computing environment where the user of the application is generally the most knowledgeable about its functionality. At the same time,

all new faculty and staff computers and all office computers come equipped with a standard current package of Microsoft Office and Microsoft Outlook.

Currently there are single-user licenses, multiple-user licenses, and site licenses for software. Some monitoring and tracking of campus licensed software occurs, but no standard procedures for dealing with copyright violations exist. Individual departments may purchase and license any software package they choose provided that Technology Services has reviewed and approved their request. Specific needs for specialized applications can create a dizzying variety of software. Individual departments and divisions with appropriate expertise may assume responsibility for the specialized software that they utilize; or, if not, they may expect support to come from Technology Services. Occasionally, the users' current hardware will not support their newly purchased software packages. In addition, software patches and upgrades are continually becoming available and need to be installed El Camino College Compton Educational Center-wide. This presents a logistical problem, given the El Camino College Compton Educational Center's current topology.

Future Plan

- The El Camino College Compton Educational Center will strive for further standardization of general-use, El Camino College Compton Educational Center-licensed software. The basic setup should include:
 - Microsoft Office,
 - Norton AntiVirus
 - Web browser
 - Accessibility software necessary to ensure compliance with federal and state regulations
- Upgrades and new applications will be evaluated for functionality, system requirements, investment value, and feasibility of cross-platform operation. The expertise for selection resides with the department requesting the software.
- Computer Support Services and other staff will continue to receive training to support installed applications.
- The compatibility of assistive software programs and campus wide programs for students will be considered when new software, upgrades and maintenance are considered. The El Camino College Compton Educational Center will be responsible in keeping the assistive programs upgraded to the level of compatibility when new software upgrade and maintenance is considered. If the current assistive software is not compatible with the campus wide software being purchased, upgraded or maintained, the compatible assistive software upgrade cost will be included in any purchasing, upgrading or maintenance.

Library and Learning Resources

Current Environment

The Library maintains a web presence to facilitate access to the online catalog, electronic databases, and links to important academic & reference websites. Eleven online databases are available for student use; including over 10,000 full-text journal and magazine titles. Computer stations and Wi-Fi are available in the Library for student use and a demonstration area for classes can be scheduled and individualized instruction in library resources can also

be arranged by appointment. Some computers are outfitted with adaptive technology for students with special needs. Printing is available through a print control system.

The Learning Resource Center (LRC) houses the Basic Skills Lab with specialized programs, as well as computers hosting individualized interactive learning systems for students of Reading, Math, and other content areas. The LRC also houses computers for word processing and other standard office applications used in support of classroom learning. The LRC also offers tutoring services in a variety of subjects by appointment and offers drop-in appointments on a space-available basis. The LRC also provides Distance Education students access to online instruction and Help Desk support.

Future Plans

- Offer online reference, tutoring, and eBooks.
- Hire technology/computer lab assistants to help students with computer hardware/software problems
- Expand accessibility with adaptive technology: Kurzweil reader/scanner, additional voice reading licenses (e.g. Dragon Speaking)
- Update existing print control system & stations for use in Library, LRC, and all other open access computer labs on campus.
- Set up referring URL or other method for remote student authentication for database use
- Overhaul Library website & pages for greater ease of use
- Upgrade existing library automation software.

Staffing

Current Environment

The thrust of the FCMAT finding (2008-2009) for Technology is that while the El Camino College Compton Educational Center MIS office has been operating as a satellite of ECC without a full range of skills and responsibilities necessary to operate Compton independently. This should be reversed to provide the district with a fully functioning and appropriately staffed MIS operation, suitable for a district of Compton's size, and equipped to prepare the district for independent re-accredited status.

The five year plan which is now about current, as of September 2011, calls initially to stabilize El Camino College Compton Educational Center by integrating MIS staff and operating platforms. Then, moving over time from a multi-campus model to a multi-college model. In this Plan, the final step is parallel operation followed by full separation of the staffs and systems. That point occurs at the end of the fifth year which may need to be modified based on when El Camino College Compton Educational Center will achieve independent accreditation. The cost of separation is expected to be in the range of \$500K to \$1M based on the most likely scenario of a reinstall of El Camino College Compton Educational Center own Datatel ERP. The full staffing of the Compton MIS department would occur only when required at the end of the plan with the ECC CIO John Wagstaff fulfilling that role during the interim. At transition, local staffing is expected to increase by about 4 FTES, about \$300K.

Future Plan

- Develop a detailed five year follow-up plan for integration and separation of the El Camino College Compton Educational Center's IT organization. Include a staff plan that positions IT to assume the role of a full function operation when reaccreditation occurs.
- Review and evaluate all IT job descriptions and the skills of the current staff. Look for best fit staff deployment.
- Prepare to fill additional vacancies as reaccreditation approaches.

Technology Training

Training

Training is vital to provide exemplary service and support, education and technical expertise required to establish and maintain information technology systems for El Camino College Compton Educational Center. The El Camino College Compton Educational Center recognizes that the purpose of technological training is to align the framework of campus technology support with institutional goals, directions, and priorities and to bring about an ongoing process that will continually assess the relationship between these two. The process is an endeavor to identify how we use technology at the El Camino College Compton Educational Center, how we wish to use it and, lastly, how to make a successful transition from one to the other. The scope and creation of the training plan is not limited to the MIS department. The scope is El Camino College Compton Educational Center-wide, with the focus on what student's need and how to foster student success through the use of technology training.

Current Environment

Faculty and staff have responded to surveys intended to determine technology training needs. Staff development has hosted a series of formal training opportunities that address some of these needs. The new Learning Resource El Camino College Compton Educational Center will house a variety of general purpose training resources intended to prepare students and staff to use existing and emerging technologies.

There are several groups of individuals and their training needs that are currently being assessed. For example:

Staff – managing Email accounts, basic word processing, El Camino College Compton Educational Center-wide technological systems such as Datatel

Faculty – managing Email accounts, basic word processing, updating Web pages, online content, multimedia production, and online grading and student database, effective implementation of Web 2.2

Students – basic word-processing, a Web-based student/college portal, Internet skills.

Future Plan

- The El Camino College Compton Educational Center will support the professional development of employees with a trainer program that concentrates on the integration of technology into the school's academic and administrative business practices.
- Technical support staff and Professional Development trainers will be readily available and current on new technologies to provide on-demand support to both faculty and staff.

- The El Camino College Compton Educational Center will offer ongoing opportunities for assistance in how to use technology in the classroom leading to the development of classes that integrate technology into curriculum.
- The El Camino College Compton Educational Center will consider developing a system of incentives, rewards and institution-wide recognition for those faculty and staff responsible for the successful infusion of technology into teaching and the continuing education.
- Increase faculty awareness of the importance of making the technology that is integrated into the curriculum accessible to persons with disabilities.

Assistive Technology

Background

The El Camino College Compton Educational Center's population of students requiring assistive technology has grown dramatically over the last ten years. The Disabled Students Programs and Services (DSP&S) has been able to meet the needs of this population. Through its "High Tech Lab", the staff of DSP&S has provided assistive technology that allows students with special needs to effectively complete their educational goals.

Current Environment

Currently, the majority of the students with disabilities who take classes at the El Camino College Compton Educational Center receive services and support through the DSP&S Program. Accommodations have been made in several computer labs to ensure accessibility in terms of facilities and furniture.

The staff of the El Camino College Compton Educational Center's DSP&S Lab is trained on the proper use of assistive technology and provides information when needed to other faculty and staff.

Future Plan

- The El Camino College Compton Educational Center will allocate funds to purchase additional required assistive technology, specialized software, and ergonomic support equipment to accommodate all users.
- DSPS will ensure that assistive technology is deployed; all instructional media is produced in alternative formats upon request; the faculty/staff are educated on the needs of the disabled population, and the El Camino College Compton Educational Center stays within compliance of local, state and federal laws pertaining to students with disabilities.
- The El Camino College Compton Educational Center will ensure that signage is provided for accessible classrooms and computer labs and restrooms. Directional signs should be provided in areas where wheelchair accessibility is other than a regular classroom door.
- All classrooms will have furniture that allows wheelchair access, as well as accommodate persons of short stature. Lab staff or wheelchair users should easily be able to adjust table height either manually or automatically. Visual fire alarms should

be positioned throughout the campus to ensure that hearing-impaired students are notified in emergencies.

Review Process

As mentioned throughout this Plan, technology is constantly changing. In order for this Plan to be current and effective there must be an annual review that is coordinated with the budget development cycle. At that time, the Technology Committee will review current trends in technology and education, evaluate the progress the El Camino College Compton Educational Center has made since the last review, make recommendations for modifications or additions to any part of the Plan, and highlight any recommendations that require funding.

Once the review is completed, the Technology Committee will forward the modifications and recommendations to the Planning and Budgeting Committee and from there to the El Camino College Compton Educational Center Council for discussion and recommendation. The results will be submitted to the Vice President of Academic Affairs and Student Services of El Camino College Compton Educational Center.

Conclusion

The El Camino College Compton Educational Center's Technology Master Plan is intended to focus on the technology needs of El Camino College Compton Educational Center over the next five years. This document will serve as the foundation for technology planning and budgeting.

The Technology Master Plan (The Plan) is a comprehensive view of technology and how technology supports the El Camino College Compton Educational Center's mission. The Plan articulates several important issues and contains recommendations for future enhancements and changes. While some of these issues have been implemented, others require planning and budgeting. The most serious concern is the deterioration of the fiber optic cable that connects the row buildings to the data and voice infrastructure. The El Camino College Compton Educational Center could experience permanent outages within a year or less.

In support of this Plan, the El Camino College Compton Educational Center needs to establish a consistent funding process. Funding should be based on a percentage of the El Camino College Compton Educational Center's capital outlay, maintenance, and operational budget. A minimum of three percent of the total operating budget should be set aside for technology, maintenance, upgrades, and changes. The El Camino College Compton Educational Center must accept the fact that computer technology has a built-in obsolescence period and must be upgraded regularly. The simple analogy is that computers are like chalk, only more expensive.

It is also important to remember that this Plan should be viewed as a living document. The annual reviews are imperative to the success of this Plan and the technological health of the El Camino College Compton Educational Center. This Master Plan, if properly executed, should provide a dynamic, structured view of technology as it pertains to education and the business services of the El Camino College Compton Educational Center. The El Camino College Compton Educational Center should continue to rely on and support the Technology Committee and Computer Support Services as they monitor the success of this Plan, continue to investigate emerging trends, and update the Plan accordingly.

Should the El Camino College Compton Educational Center Board of Trustees and administration maintain and support the technological growth as they have in the past, this El Camino College Compton Educational Center should be well poised to support the academic and administrative goals of the students, staff, faculty and administration throughout this Plan and beyond.

Appendix A.

Appendix A contains an Executive Summary and the 67 Technology Plan Action Items as grouped in the plan document under “Future Plan” headings.

The items in the tables that follow the executive summary are numbered in the order in which they appear in the plan document. This was done to facilitate auditing. The original goals and objectives are retained. Most, but not all the action items are prioritized. The original wording is retained. The status is indicated in the third column and cost in the fourth right column.

Executive Summary

The chart below provides a quantitative summary of the current state of Compton’s 2009-2014 technology plan. The tables located at the end of this summary show the completed and uncompleted plan activities that support the quantitative data in the first table.

Technology Plan Action Items	Completed and/or Ongoing	Inactive and/or Pending	Roll Over to 2011-2012
Data Systems and Networking			
Facilities	2	2	0
Technology Infrastructure	5	1	0
Online Student Services	3	0	0
Remote Access for Faculty and Staff	2	0	0
Electronic Mail	2	0	0
Web Site Access and Development	2	2	0
Backup Procedures and Disaster Recovery	1	3	0
Subtotal Data Systems and Networking	17	8	0
Equipment And Software			
Computer Replacement, Upgrade, and Maintenance	4	3	0
Procurement Procedures	3	0	0
Media Equipment Replacement and Maintenance	1	1	0
Multimedia	2	2	0
Distance Education	2	2	0
Software Replacement, Upgrade, and Replacement	1	3	
Library and Learning Resources	1	5	0
Staffing	2	1	0
Subtotal Equipment and Software	16	17	0
Technology Training			
Training	1	4	0
Assistive Technology	0	4	0
Subtotal Technology Training	1	8	0
Total	34	33	0

The following summary conclusions are drawn from this data:

1. Of the 67 plan activities, 34 are completed and 33 are inactive.
2. All the easy, nonpolitical work has been done. The larger issues of staff support and training have not been addressed.
3. Of the 3 major plan categories, Data Systems and Networking have the most completed or underway plan activities (17 of 25) and Technology Training the least (1 of 9).
4. Clearly, the college focused its energy and resources on infrastructure and online issues. All the activities associated with online student services, remote access for faculty and staff, and electronic mail are completed.
5. Creating new staff positions that support the college's new technology initiatives has not been possible. The plan requested five new, full time positions; two in web site access and development, one in the Instructional Technology Center, one media design specialist in distance education, and one technology / computer lab technician in the LRC. All five are in the inactive stage.
6. The condition of the data infrastructure in the row buildings continues to be a concern with serious unresolved issues in the classrooms and the intermediate distribution frames (data switch closets). There is also a concern over connectivity between Compton CCD and its off campus sites.
7. The lack of staff and faculty awareness of the importance of being good citizens in the network and observing even basic security precautions has not been addressed.
8. The college lacks the most basic security and disaster recovery plans.
9. Of the 6 plan activities slated for the library/learning resources area only 1 is completed; the library automation system has been upgraded. Online reference, tutoring, and eBooks remain on the inactive list along with accessibility issues and a workable print control system.

10. The college has a workable, automated inventory system that provides information about the PCs connected to the network that is helps decision makers determine when to upgrade. All new PC carry five year warranties and maintenance agreements that have been outsourced. The college has ended the practice of repurposing old PCs. However, unpredictable budget cycles have conspired against establishing a PC replacement cycle that is synchronized with the warranty periods. For the same reason, the college has been unable to establish a predictable, adequate center budget for technology.

The technology committee plans to review this data and the summary conclusions to select plan activities for implementation during the 2011-2012 fiscal year.

Technology Plan 2009-2014
Status, Cost and Priority of Completed Plan Action Items

Priority	Description	Status	Cost
DATA SYSTEMS AND NETWORKING			
Facilities			
1	1. Install new single and multimode fiber optic cable to all of the row buildings.	Completed	\$166,000
1	4. Continue to address facility issues through the Facilities Master Plan keeping in mind the above requirements for the success of the Technology Plan.	Ongoing	\$0.00
Technology Infrastructure			
1	5. The Center's technology infrastructure will support the Center's mission by providing access to the voice, video, and data network services including Internet access and the latest technologies that support teaching and learning. <i>This item requires an annual budget augmentation.</i>	Ongoing	\$500,000
1	6. Complete a five year plan for integrating the El Camino College and Compton Education Center ITS operations and separating upon accreditation. This plan should have sections describing the staffing and organization of the Compton's ITS unit as well as steps leading to the separation of Compton Center's business practices and work flow from those of El Camino College. <i>Datatel submitted a Project Plan on 12-19-2009</i>	Completed	\$0.00
1	7. Upgrade and expand the technology infrastructure to support full bandwidth video and other bandwidth intensive applications. <i>State funded facilities project.</i>	Completed	
2	9. Expand the functionality of the Center's Cisco IP Telephony switch to include the reverse 911 system and deployment of the "soft" features such as IP communicator and IP Call Center.	Completed	\$100,000
1	10. Maintain network systems and services that are highly integrated with El Camino College's system so that all users, students, faculty and staff will experience the same range and	Completed and Ongoing	\$0.00

Priority	Description	Status	Cost
	quality of service regardless of location, including four-digit dialing, integrated address books, and seamless active directory login accounts.		
Online Student Services			
2	11. El Camino College should help the Center implement online degree audit. This would allow students to retrieve information on demand based on their major and the courses they have completed. It will be a valuable tool for students to use when planning their class schedules and will help to reduce traffic in Admissions and Counseling. <i>Online Degree Audit deployed for El Camino College and Compton Center in January, 2011</i>	Complete	\$0.00
3	12. A virtual counselor needs to be established in the form of a chat room, video conference or even automated degree audit using "fuzzy" artificial intelligence technology to make course suggestions since not all students have time or do not attend counseling appointments. <i>Datatel e-Advisor suite has this functionality. ECC deployed in early January, 2011. Datatel developed Degree Audit and e-Advising as tools for students and counselors.</i>	Completed	\$0.00
1	13. The Center should implement a document imaging system capable of creating a uniform environment of information storage and retrieval that integrates with other file formats including Datatel Colleague. The goal should be increased productivity through the creation of paperless environment that emphasizes ease of information retrieval and file security. (ECC licensed for unlimited users at El Camino and Compton Center)	Ongoing	\$13,000 @ scanning station
Remote Access for Faculty and Staff			
1	14. Compton Center's IP Telephony system should be upgraded to allow for the same features and functions that are available to user at El Camino College, including reverse 911 system and deployment of the "soft" features such as IP communicator and IP Call Center. <i>Same as #9 above</i>	Completed	
1	15. Utilize Virtual Private Network (VPN) technology to allow authorized staff using college issued and support PC workstation or laptops to access the Center's network	Completed	\$0.00

Priority	Description	Status	Cost
	remotely. In order to support these types of access the Center should deploy Cisco's "Clean Access" appliance.		
Electronic Mail			
1	16. To prevent the 'compton.edu' domain name from being lost, El Camino College renewed the license with EUDCAUSE when the partnership began in August, 2006. The Center's domain name continues to appear in all outbound email. It will be available when the Center achieves accreditation. <i>There is a annual cost associated with this item,</i>	Completed and Ongoing	\$50.00
1	17. El Camino College-Compton Educational Center will continue to participate in district discussions concerning decisions and improvements throughout the evolution of our email system.	Completed and ongoing	\$0.00
Web Site Access and Development			
1	18. In order to assure reliable, 24X7 – 365 day a year uptime, the Center must invest in additional backup hardware and software.	Underway	\$400,000
1	19. El Camino College-Compton Educational Center should continue to work with ITS staff to create interfaces that integrate Web services with the student information system.	Completed and Ongoing	\$0.00
Backup Procedures and Disaster Recovery			
1	22. Upgrade and expand the Storage Area Network <i>Included in #18. above.</i>	Underway	\$0.00
EQUIPMENT AND SOFTWARE			
Computer Replacement, Upgrade and Maintenance			
1	26. Deploy the Altiris client to all staff and faculty PCs. Use this tool to obtain accurate on-demand inventories	Completed	\$0.00
1	27. Negotiate a 5-year onsite parts and labor warranty for all new PC workstations. Negotiate a 4-year warranty for all laptop PCs	Completed	(Adds \$135.00 to the cost of each unit)
1	30. Outsource PC workstation maintenance.	Completed	(Cost of annual GST contract.)
1	31. End the policy of recycling old PCs downward to staff and faculty.	Completed	\$0.00
Procurement Procedures			
1	33. The Center should continue to provide all employees with technology as needed.	Ongoing	\$0.00

Priority	Description	Status	Cost
	<i>This item relates to item #5 above</i>		
1	34. All technology related purchases must meet current standards.	Completed	\$0.00
2	35. All video projectors purchased should be capable of closed captioning.	Ongoing	\$0.00
Media Equipment Replacement and			
2	37. All media equipment will comply with the Americans With Disabilities Act and section 508 of the Rehabilitation Act of 1998. <i>This item relates to item #35 above.</i>	Ongoing	
Multimedia			
1	38. Staff development will deliver continuous training and support for integrating multimedia and presentation software into the curriculum.	Ongoing	\$0.00
1	41. Develop standards for a portable smart media solution for the older buildings.	Completed	\$80,000
Distance Education			
1	42. Continue to support the development of distance learning via web based course shell management software as well as video conferencing. <i>ECC has extended its ETUDES licensed to cover Compton Education Center's distance education course sections.</i>	Ongoing	\$0.00
1	45. All distance learning course offerings must be ADA and Bobby compliant.	Ongoing	\$0.00
Software Replacement, Upgrade, and Maintenance			
2	46. The Center should strive for further standardization of general-use, Center-licensed software. The basic setup should include: <ul style="list-style-type: none"> • MS Office, • AntiVirus Software • Internet Explorer • Colleague Client • Accessibility software necessary to ensure compliance with federal and state regulations 	Completed and Ongoing	\$100,000
Library and Learning Resources			
1	55. Upgrade the library automation software or consider outsourcing.	Completed	\$0.00
Staffing			
1	56. Develop a detailed five-year follow up plan for integration and separation of the Center's IT organization. Include a staff plan that positions IT to assume the role of a full function operation when accreditation occurs.	Completed	\$0.00

Priority	Description	Status	Cost
1	57. Review and evaluate all IT job descriptions and the skills of the current staff. Look for best fit staff deployment.	Completed	\$0.00
TECHNOLOGY TRAINING			
Training			
1	59. The Center should continue to support the professional development of employees with a “train-the-trainer” program that concentrates on the integration of technology into the school’s academic and administrative business practices. <i>Self help documentation on Colleague procedures is available online via the ECC Portal.</i>	Completed	\$0.00
Assistive Technology			

**Technology Plan 2009-2014
Status, Cost and Priority of Uncompleted Plan Action Items**

Priority	Description	Status	Cost
DATA SYSTEMS AND NETWORKING			
Facilities			
1	2. Re-dress the category 5 and 6 data cable in the row building Intermediate Distribution Frames (IDFs) and provide adequate HVAC.	Inactive	\$75,000
1	3. Install Category 6 data cable to all classrooms and computer labs. (Row Buildings only; may not be necessary)	Inactive	\$100,000
Technology Infrastructure			
1	8. Establish secure network connections for all off campus sites. (Cost estimate for each site)	Inactive	
Online Student Services			
Remote Access for Faculty and Staff			
Electronic Mail			
Web Site Access and Development			
1	20. El Camino College-Compton Educational Center should include a full-time Webmaster in its staffing plan. (Annual Salary) <i>This requires a new full time position.</i>	Inactive	\$80,000
	21. Since the Web is a public medium and the easiest way for the general public to assess the Center's level of technology, El Camino College-Compton Educational Center should make a concerted effort to keep the technologies in use on its Web site as current as possible. <ul style="list-style-type: none"> a. Web cameras that provide real-time views of the campus and events b. Virtual tours that invite potential students to "visit" the campus c. The Web (<u>Compton CCD web Site??</u>) should be ADA compliant. Requires a Web Master and one time funding <i>This requires a new full time position.</i>	Inactive	\$50,000
Backup Procedures and Disaster Recovery			
2	23. Begin a campaign to increase staff awareness of the importance of data security and require offices accumulating sensitive data to use the SAN. (Must wait for #18. Above)	Inactive	\$0.00
2	24. Draft a Disaster Recovery Plan	Inactive	\$0.00
2	25. Involve the Center in a security analysis of	Inactive	\$0.00

Priority	Description	Status	Cost
	its data resources and use the results to draft a Security Plan.		
EQUIPMENT AND SOFTWARE			
Computer Replacement, Upgrade and Maintenance			
1	28. Synchornize the replacement cycle with the warranty periods.	Inactive	\$0.00
1	29. Establish a goal of replacing 2/3s of PC workstations with vitual desktop technology and 50% of the physical servers with virtual server technology. <i>Some virtual desktops have been deployed but the concept remains in the alpha testing phase.</i>	Inactive	\$0.00
1	32.Create a central budget for technology	Inactive	\$250,000
Procurement Procedures			
2	36.The Center should draft a schedule to convert all of its classrooms to smart technology. <i>The college must first launch the infrastructure upgrade project to the extent that it begins to touch the row building classrooms. The college must also rewire the intermedia distribution frames and the connected classrms for this item to occur.</i>	Inactive	\$0.00
Multimedia			
3	39. New classrooms and computer labs must support multimedia teaching and learning.	Inactive	\$0.00
3	40. The Center needs to create a full time support position for the Instructional Technology Center (ITC). <i>This item requires the college to create a new full time position.</i>	Inactive	\$80,000
Distance Education			
3	43. The DE (Distance Education) and IT (Instructional Technology) Committees will work together to plan the future goals for distance learning opportunities. The outcome will consist of strategic planning and policy recommendations that will guide decisions about the courses, degree, and certificate offering mibgrating to the online enviornment.	Inactive	\$0.00
3	44. Create the full time position of Media Design Specialist to support faculty in their training and course development needs. <i>This item requires the college to create a new full time position.</i>	Inactive	\$65,000

Priority	Description	Status	Cost
Software Replacement, Upgrade, and Maintenance			
3	47. Upgrades and new applications should be evaluated for functionality, system requirements, investment value, and feasibility of cross-platform operation. The expertise for selection resides with the department requesting the software.	Inactive	\$0.00
2	48. Computer Support Services and other staff must continue to receive training to support installed applications.	Inactive	\$0.00
2	49. The compatibility of assistive software programs and campus wide programs for students should be considered when new software, upgrades and maintenance are considered. The Center should be responsible for keeping the assistive programs upgraded to the level of compatibility when new software upgrade and maintenance is considered. If the current assistive software is not compatible with the campus wide software being purchased, upgraded or maintained, the compatible assistive software upgrade cost will be included in any purchasing, upgrading or maintenance.	Inactive	\$0.00
Library and Learning Resources			
3	50. Create an online gateway for reference, help, tutoring, and eBooks	Inactive	
3	51. Hire technology/computer lab assistant to help students with computer hardware/software problems. <i>This item requires the college to create a new position that should report to the MIS unit</i>	Inactive	\$55,000
3	52. Expand accessibility with adaptive technology: Kurzweil reader/scanner, additional voice reading licenses (e.g. Dragon Speaking)	Inactive	\$75,000
2	53. Acquire print control system & stations. <i>This can be a "no cost to the Center" option.</i>	Inactive	\$0.00
2	54. Set up referring URL or other method for remote student authentication for database use. <i>This item requires more discussion</i>	Inactive	\$0.00
Staffing			
3	58. Prepare to fill additional vacancies as accreditation approaches. <i>The staffing plan is complete and will be reviewed periodically. As accreditation</i>	Inactive	\$400,000

Priority	Description	Status	Cost
	<i>approaches, Compton CCD will have to fund the vacant positions.</i>		
TECHNOLOGY TRAINING			
Training			
3	60. Technical support staff and Professional Development trainers should be readily available and current on new technologies to provide on-demand support to both faculty and staff. <i>This item required more discussion. The cost of implementing technology that requires a training component should be factored into the procurement cost.</i>	Inactive	\$0.00
	61. The Center will offer ongoing opportunities for assistance in how to use technology in the classroom leading to the development of classes that integrate technology into curriculum.	Inactive	\$0.00
4	62. The Center should consider developing a system of incentives, rewards and institution-wide recognition for those faculty and staff responsible for the successful infusion of technology into teaching and the continuing education.	Inactive	\$0.00
2	63. Increase faculty awareness of the importance of making the technology integrated into the curriculum accessible to persons with disabilities.	Inactive	\$0.00
Assistive Technology			
	64. The Center should allocate funds to purchase required assistive technology, specialized software, and ergonomic support equipment to accommodate all users.	Inactive	\$0.00
	65. DSPS will be responsible for ensuring that assistive technology is deployed; all instructional media is produced in alternative formats upon request; the faculty/staff are educated on the needs of the disabled population, and that the Center stays within compliance of local, state and federal laws pertaining to students with disabilities.	Inactive	\$0.00
	66. The Center will ensure that signage is provided for accessible classrooms and computer labs and restrooms. Directional signs should be provided in areas where wheelchair accessibility is other than a regular classroom door.	Inactive	\$0.00
	67. Furniture in all classrooms should allow for wheelchair access, as well as accommodate	Inactive	\$0.00

Priority	Description	Status	Cost
	persons of short stature. Lab staff or wheelchair users should easily be able to adjust table height either manually or automatically. Visual fire alarms should be positioned throughout the campus to ensure that hearing-impaired students are notified in emergencies.		