

## STANDARD III.C - TECHNOLOGY RESOURCES

**Technology resources are used to support student learning programs and services and to improve institutional effectiveness. Technology planning is integrated with institutional planning.**

**III.C.1. The institution assures that any technology support it provides is designed to meet the needs of learning, teaching, college-wide communications, research, and operational systems.**

Technology is integral to learning, teaching, research, communications, and operations at Los Angeles Mission College. Students use technology to access information, register for classes, communicate with faculty, complete their coursework, and participate in elections and surveys. Faculty use technology to enhance or deliver instruction, develop curriculum, assess Student Learning Outcomes, manage class rosters, and submit grades. College employees use technology to communicate, manage student records, schedule events, order supplies, conduct research and program review, coordinate meetings, and provide services to support student learning. The College provides many avenues for campus personnel to be informed about and respond to technology in order to advance its mission. Some of the venues that facilitate dialogue about technology include Program Review, department discussions of SLO/SAO assessment reports, training workshops, and Flex Day (III.C-1), in addition to Technology and Professional and Staff Development Committee meetings.

To continue fostering the College's technological integrity, advancing its mission, and improving institutional effectiveness, the Technology Committee held several meetings in 2009-2010 (III.C-2) to elicit input for the goals and objectives of the new Technology Master Plan (TMP) 2010-2015. The final TMP (III.C-3), was approved in fall 2010, and is fully integrated into the Strategic Master Plan, supports the Educational Master Plan, is consistent with the Facilities Master Plan, and aligns with the District Technology Strategic Maser Plan. The TMP outlines technology solutions within the College to maintain technology skills for faculty and staff, enhance student success by providing access to instructional resources, update the College infrastructure, implement a long-range budget plan for technology needs, and annually review and revise the effectiveness of the Technology Master Plan.

**III.C.1.a. Technology services, professional support, facilities, hardware, and software are designed to enhance the operation and effectiveness of the institution.**

### DESCRIPTIVE SUMMARY

Technology needs at Los Angeles Mission College are identified and evaluated in a variety of ways. These include the following:

- **Program Review:** Departments and programs identify and assess technology needs as part of the annual Program Review and planning process (III.C-4).
- **Technology Committee:** the Technology Committee at Los Angeles Mission College is a shared governance body (III.C-5) that discusses and recommends technology needs to the College Council for approval. The College Council approved the Technology Master

Plan on November 18, 2010 and also approved the proposal of adding two computer teaching labs for the East Campus Complex.

- **District Technology Committee and College IT professionals** make decisions regarding infrastructure and selection of vendors as part of a collaborative effort to enhance the operation and effectiveness of the institution.

Over the last six years, the College has implemented many technology initiatives to support student learning, teaching, research, college-wide communications, and operational systems. Furthermore, the recent completion of several new instructional buildings and the opening of the East Campus Complex in 2009 have provided both the necessity and opportunity to upgrade technology throughout the campus. The following tables (Tables 1-3) list some of the most important technology-driven developments or projects implemented to meet the College's evolving needs since the 2006 self study.

<b>TABLE 1 LAMC TECHNOLOGY PROJECTS FOR STUDENT ACCESS (2006-12)</b>		
<b>Year</b>	<b>Project Name</b>	<b>Description</b>
<b>2007</b>	Kiosk computers	Upgraded 10 old computers in the Admissions and Records student lobby area to Pentium computers.
	Online ASO voting	An online voting module was implemented and deployed successfully through a secure student portal interface for annual Associated Students Organization (ASO) elections.
	Equitrac Print System	Print management software was installed that allows the College to easily track, analyze, and charge for student printing. The Equitrac printing system was implemented in the Library and Learning Resource Center (LRC).
	Student Portal	A centralized Student Portal system was made available for students to view grades, check their lab usage, conduct voting, and other tasks.
	NetTrack	A time tracking system was installed on lab computers that tracks usage time and provides capabilities for reporting positive attendance.
	Life Science Computers	Upgraded 6 student computers in the Life Sciences lab.
	Academic Calendar	A dynamic calendar was developed to keep track of important deadlines throughout the academic year.
<b>2008</b>	MAC labs	Replaced 50 IMAC computers in LRC 233 and 126.
	Library computers	Replaced 27 student computers in the Library.
	Math Center	Replaced 44 student computers in the Math Center.
	Assessment Computers	Replaced 25 student computers in the Assessment Center.
	SOCO	Created the Schedule of Classes Online (SOCO), a searchable class schedule, which allows students to look up specific courses and seat availability for current and coming semesters.
<b>2009</b>	Learning Resource Center (LRC) computers	Replaced 28 computers, Room 234, LRC, with new computers. Replaced 40 computers, Room 205, LRC. Upgraded memory of 129 computers in LRC Commons.

**TABLE 1  
LAMC TECHNOLOGY PROJECTS FOR STUDENT ACCESS (2006-12)**

<b>2009</b>	Electronic Message Board	An electronic message board was implemented at the corner of Eldridge and Hubbard to broadcast campus news, events, and activities. This increases the awareness of campus activities to students and the surrounding campus community.
	Television in the student break area	Installed two televisions in the student lobby area of the Campus Center.
<b>2010</b>	Equitrac Print System	The Equitrac Print System was implemented in the Computer Applications and Office Technologies (CAOT) Center.
	EZ Proxy	Off-campus access to library electronic resources through EZ Proxy is now available to all current Los Angeles Mission College students, staff, and faculty.
	College Event Calendar (CEC)	The CEC was implemented to provide event information to students, community, and campus.
	YouTube Channel	The College established an official educational YouTube channel. The site is available to upload tutoring videos to students and serves as an informal learning environment anywhere and at any time.
	Video Advisory	With a Verizon grant, the District and College coordinated to implement a counseling advisory section using a video conference call. Video communication occurred between counselors on the main campus and students at high schools as needed during recruitment.
	Outreach Computers	Replaced 6 student computers in the Outreach Office.
<b>2011</b>	Equitrac Print System	The Equitrac Print System was implemented in Computer Sciences and Information Technology (CSIT) labs.
	Kiosk Computers	Upgraded 10 computers to the latest Pentium technology and added two computers in the Admissions and Records student lobby area.
	Virtual Desktop Infrastructure (VDI)	The virtual desktop infrastructure (VDI) technology was implemented to increase the life span of student computers in the Library and the Title V Learning Resource Center.
<b>2012</b>	Blackboard Connect	Purchased Blackboard Connect (BBC), a Web-based mass communication system, to send voice, e-mail, and text messages to students regarding campus events, LRC activities and services, and safety.

**TABLE 2**  
**LAMC TECHNOLOGY PROJECTS FOR FACULTY & STAFF ACCESS (2006-12)**

<b>Year</b>	<b>Project Name</b>	<b>Description</b>
<b>2007</b>	Scheduling And Reporting System (SARS) Grid	SARS Grid, a student appointment and scheduling software, was implemented for use in the Counseling Office, EOP&S, DSP&S and Transfer Center.
	Scheduling And Reporting System (SARS) Call	SARS Call, an automated messaging system to send appointment reminders, announcements, and registration notices to students, was implemented.
	Online Tutoring Referral System	To improve the student success rate, the Online Tutoring Referral System was developed to assist faculty to refer students who need tutoring services to the Learning Resource Center.
	Smart Classrooms	Converted 11 regular classrooms in the Instructional Building into Smart classrooms; these rooms were equipped with mounted projectors, electronic screens, and computers. Converted rooms are 1001, 1002, 1012, 1013, 1017, 2003, 2004, 2006, 2009, 2018, and 2021.
	Faculty/Staff Portal	A centralized portal system, which consolidates online systems in one location, was initiated. Services are available using a role-based system.
	Faculty Resources	A set of useful tools, such as the ability to refer students to tutoring systems, upload syllabi, e-mail students, etc., was made available for faculty.
	Windows SharePoint Services	A centralized Web site that allows faculty/staff to collaborate was initiated.
<b>2008</b>	Smart Copy	Faculty and staff are able to submit a copy or printing request to the Reprographics Office online from off campus. This in-house development has helped faculty avoid long waiting lines in the Reprographics Office, especially at the beginning of each semester.
	Instructional Program Review	Online instructional Program Review became available for Academic Programs.
	Dynamic Reporting Modules	Common data reports were converted to dynamic online based reports.
	Online Curriculum Retrieval System	A searchable online repository of approved course outlines of Record (CORs) was developed.
	Faculty Profile System	Easy-to-use Web page development tools became available to faculty/staff for posting course content for students.
	Class Climate	Scantron's Class Climate server now enables automated, high-volume evaluations of courses, study programs, and departments.
<b>2009</b>	Faculty Computer Replacement	The Faculty Office Complex Renovation Project was an opportunity to purchase new computers for all full-time and adjunct faculty computers.
	Non-Instructional Program Review	Online non-instructional Program Review became available for Student Services and Administrative Services.
	Equitrac Print System	The Equitrac Print System was implemented in the faculty offices. The system effectively reduces printing costs and increases document security for all faculty members.

**TABLE 2  
LAMC TECHNOLOGY PROJECTS FOR FACULTY & STAFF ACCESS (2006-12)**

<b>2009</b>	Student Learning Outcomes system	An online Student Learning Outcome (SLO) system was developed to record and assess SLOs.
	ImageNow (Admissions and Records)	ImageNow is a document management solution which allows the Admissions and Records Office staff to scan, store, and retrieve documents.
<b>2010</b>	Program Review version 2	Integrated annual resource requests and facility requests for unit assessment into Program Review.
	Enrollment Reporting System (ERS)	Developed an automated enrollment reporting tool and made it available to faculty and staff.
	FLEX Reporting System	An online system was implemented which calculates faculty FLEX obligations and allows faculty to submit hours completed for those obligations.
	Microsoft IT Academy	Provided Microsoft online training courses to staff and faculty.
<b>2011</b>	Student Learning Outcomes	Implemented Program Learning Outcomes Online system for recording and posting assessment data.
	Class Climate	Scantron's Class Climate server enabled automated, high-volume evaluations of courses, study programs, and departments. Extended to off-campus access.
	SharePoint Server 2007	Windows SharePoint Services was upgraded to SharePoint 2007 server.
<b>2012</b>	E-mail Upgrade Project	Upgraded faculty and staff e-mail system from Outlook Exchange 2003 to Outlook Exchange 2010.

**TABLE 3  
LAMC TECHNOLOGY PROJECTS FOR CAMPUS WIDE ACCESS (2006-12)**

<b>Year</b>	<b>Project name</b>	<b>Description</b>
<b>2007</b>	Campus cabling	Major improvements in the campus infrastructure were addressed. This started with the most critical part of the network in upgrading the cabling backbone from category 3 to category 6, full-duplex multimode fiber optic cabling connected between buildings; the edge switches and the core switches were completely replaced with the layer three technology. This feature reduced network collision and increased the high speed network for instructional uses.
	Event Management System (EMS)	Implemented Web-based facilities scheduling software to maximize the use of college resources and avoid conflicting room booking.
	OmniUpdate	Converted campus Web page to District standard Content Management System OmniUpdate.
	SIS Sync	Common Student Information System tables were cached on local SQL for faster access. These tables are used by services that support student and faculty/staff.
	Mass E-mail	Communication with student population via mass e-mail was initiated.
<b>2008</b>	Voice over Internet Protocol	Migrated the 15-year old PBX Fujitsu analog phone system to the Voice over Internet Protocol. All faculty and staff were provided unified voice services.
	Video over Internet Protocol	Implemented High Definition Video Conferencing via Internet Protocol in the Library Conference Room 330.
	Wireless Access	Implemented wireless network throughout all campus facilities.
	Online Directory	An online searchable directory that lists faculty/staff/department contact information was implemented.
<b>2009</b>	Optic fiber connection to East Campus	Installed 96 fiber optic strands connecting the HFAC building to the main campus to provide internet and phone service to the East Campus.
	Gigabit Internet	The one-gigabit broadband internet service was provided by the Corporation for Education Network Initiatives in California (CENIC). This provides high capacity Internet access and is a failover (hot standby) for the Digital Signal 3 (DS3) circuit which was installed in 2004.
	Emergency phones	Implemented an emergency blue light phone response system throughout key areas of the campus. When activated by a push button, the caller has immediate verbal communication with an on-duty campus police officer and the nearest camera pointing to the caller.
	Security Camera System	About 200 security cameras were installed throughout the main campus and satellite locations.
	Campus Payphones	Implemented 6 pay phones in areas with high traffic and weak cell phone signal.

**TABLE 3**  
**LAMC TECHNOLOGY PROJECTS FOR CAMPUS WIDE ACCESS (2006-12)**

<b>2009</b>	AlertU	In spring 2009 implemented mass notification AlertU system, a District wide initiative. The system requires students, faculty, and staff to enroll in AlertU in order to receive emergency notifications.
	Video over IP	Implemented High Definition Video Conferencing via Internet Protocol in the President's Conference Room and HFAC Conference Room.
<b>2010</b>	Access Control Security	Exterior doors of new buildings and existing buildings were equipped with Access Control Security system. The technology offers advanced access control, alarm monitoring, digital video, and intrusion detection.
	Video over IP	Implemented High Definition Video Conferencing via Internet Protocol in the Academic Affairs Conference Room and Culinary Arts Conference Room.
	Off-Site Backup	4-terabyte storage was installed in the data center at Los Angeles Harbor College as off-site backup. Los Angeles Mission College IT staff performed weekly remote backup of all critical data such as e-mail, student database, and daily on-site backup.
<b>2011</b>	New College Web page	Designed and completed in August 2011 a new robust, user friendly, modern, and streamlined navigation main College Web page.
	Virtual Desktop Infrastructure (VDI)	VDI solution was implemented in the LRC Computer Commons and Student Success Center.
	Adobe Professional Site License	Recently, the College joined with other colleges to purchase the Adobe Professional Agreement to increase Adobe Creative Suite licenses across campus at a low cost.
	Fiber Ring	Connected all buildings with redundancy configuration.
<b>2012</b>	Blackboard Connect	Purchased Blackboard Connect (BBC), a Web-based mass communication system, to send voice, e-mail, and text messages to students, faculty, and staff. BBC has the capability to send 10,000 messages in 2 minutes.

Los Angeles Mission College has adopted Moodle, eCollege, and MyLabsPlus as its Learning Management Platforms for distance learning, hybrid, and Web enhanced courses. The performance and capabilities of these software programs are generally regarded as suitable to the College's needs. The College provides workshop training in these programs to support faculty in using these tools. Moodle is hosted remotely, and LAMC pays a proportionate share of the overall hosting fees with other sister colleges in the District. Faculty develop and maintain their course shells with Moodle. The Distance Education (DE) Faculty Coordinator and the IT Department administer the LAMC Moodle site and assist faculty with the creation of course shells to ensure that student names are uploaded from the District Student Information System directly to the respective Moodle course shell. ECollege and MyLabsPlus are hosted by the Pearson Publishing Company, and the costs are passed on to the students. Students also have the possibility to bundle a "hard copy" of the textbook or an eBook.

## SELF EVALUATION

Over the last six years, the College has implemented a wide range of far-reaching technological initiatives throughout the campus. Technology resources are provided on an ongoing basis and are designed to meet the needs of learning, teaching, and enhancing the operation and effectiveness of the College. Even with budget and staffing limitations, technology resources have been harnessed to support the needs of learning and teaching, students, and college operations.

In the Fall 2011 Faculty and Staff Survey, a sizable majority of respondents either strongly agreed or agreed with the following statements (III.C-6): “*The computer hardware and software available at Mission College help me to effectively perform my required duties*” (85%), “*When I have a technology question or issue, the Technology Department provides me with help and/or training in a timely manner*” (73%); “*I am satisfied with the systematic maintenance, upgrade and replacement of the technical resources I utilize*” (70%); “*When I have received technology training, it has been effective and of high quality*” (68%); and “*When I need technology training, it has been available*” (66%). Additionally, 78% of respondents indicated that they were satisfied all or most of the time with the completion of their computer and telephone service requests and 74% were satisfied with the timeliness of the service. These survey results indicate that the College is doing an adequate job of serving the technology needs of its faculty and staff.

**TABLE 4**  
**FALL 2011 FACULTY AND STAFF SURVEY (N = 158)**

Survey Questions	Strongly Agree or Agree %	Disagree or Strongly Disagree %	Not Applicable or No Experience %
28. The computer hardware and software available at Mission College help me to effectively perform my required duties.	85	10	5
29. When I need technology training, it has been available.	66	17	17
30. When I have received technology training, it has been effective and of high quality.	68	9	23
31. I am satisfied with the systematic maintenance, upgrade and replacement of the technical resources I utilize.	70	17	13
32. When I have a technology question or issue, the Technology Department provides me with help and/or training in a timely manner.	73	11	16

Survey Questions	All or Most of the Time %	Some or None of the Time %	Not Applicable %
20. Timely Completion of Computer and Telephone Requests	74	8	18
20. Satisfaction with Completion of Computer and Telephone Requests	78	6	17



In the Fall 2011 Student Survey, which was completed by 607 LAMC students, 75 percent of respondents either strongly agreed or agreed that the availability of student computing facilities meets their needs. Additionally, 74 percent of respondents either agreed or strongly agreed that they can access the Internet anywhere on campus. Finally, 89 percent of all respondents either agreed or strongly agreed that the College Web site is easy to navigate (III.C-7). These survey results indicate that the College is doing an adequate job of serving the technology needs of its students.

**TABLE 5**  
**FALL 2011 STUDENT SURVEY (N = 607)**

Survey Questions	Strongly Agree or Agree %	Disagree or Strongly Disagree %	Not Applicable or No Experience %
43. The availability of student computing facilities meets my needs.	75	8	17
44. I can access Internet anywhere on campus.	74	10	16
45. L.A. Mission College Web site is easy to navigate.	89	8	4

Until summer 2012, the College communicated with students using three different mass notification technologies:

- **SARS Call:** Sends a voice message to students using four telephone lines; it takes two days to complete a call to 10,000 students. Used primarily for registration appointments, class announcements, college events, and counseling appointment reminders.
- **Alert-U:** Is an opt-in system; it delivers a message to students and faculty members via a text message on their cell phones. The message is delivered to those who have enrolled into the Alert-U system; however, currently, only 10 percent of students and faculty are enrolled in Alert-U. This system is used for emergency notifications only.
- **E-mail Blast:** Provides the ability to send a notification to all students, staff, and faculty instantly, but must be done by an Information Technology staff member. It takes about 30 minutes to send out 10,000 e-mail notifications. Used primarily for registration appointments, general announcements, college events, and emergency notifications.

All three of the mass notification systems described above have significant limitations. The College needed a robust, unified mass notification system to quickly deliver notifications or emergency messages to all students, staff, and faculty via a combination of e-mailing, texting, and calling. In 2012 the College purchased and implemented the Blackboard Connect (BBC) system, which allows it to send voice mail, text and/or e-mail messages to students, faculty, and staff in a very short time. The BBC mass notification system can send up to 10,000 messages in two minutes. Since July, 2012 the College has used Blackboard Connect for mass notifications, which has allowed it to communicate more effectively with students, faculty, and staff. The funds to cover the costs of BBC were provided by a Title V Hispanic Serving Institution (HSI) grant. The College will have to identify funding to cover the cost of a mass notification system after the Title V HSI grant ends in September 2014.

### **ACTIONABLE IMPROVEMENT PLAN**

The Vice President Administrative Services and College IT Manager will develop a plan by spring 2014 to identify funding for ongoing operational support needs for existing and new technology projects.

### **III.C.1.b. The institution provides quality training in the effective application of its information technology to students and personnel.**

#### **DESCRIPTIVE SUMMARY**

##### **Technology Training for Students:**

Informal technology training is provided to students by the Information Technology Instructional Assistant personnel in the Learning Resource Center, Math Center, Computer Science, CAOT, DSP&S, Science Success Center, and Academic Success Center. Computers and lab assistants are available in these locations to help students supplement their course work. Departments provide training for their faculty and students. For example, the Math Department has requested representatives of the software Wolfram Mathematica to provide workshop and training sessions for students and faculty on a regular basis. Counselors in the Transfer Center train students to use the online ASSIST student-transfer information system or use the Eureka career-assessment software to meet their needs.

In addition, students at Los Angeles Mission College have an opportunity to use and improve their technology skills in a number of ways including the use of the wireless network, the Student Portal, online Associated Students Organization (ASO) voting, Schedule of Classes Online (SOCO), and online surveys.

To engage students in using technology, an official Los Angeles Mission YouTube channel (III.C-8) was configured and serves as an informal technology learning environment. Many tutor videos of mathematics, science, and law courses are made available on the LAMC YouTube channel, so students can review their labs, lectures, or tutor sessions anywhere and at any time.

Every semester, formal training is held for students in the Library. The College Library provides a one-unit course on Internet Research Methods to focus on finding and evaluating resources on the Internet. This one-unit class strengthens the information literacy and technology skills of students and can be found in the Class Schedule (III.C-9).

##### **Technology Training for Personnel:**

Technology training for faculty and staff is a goal in the Technology Master Plan and College Strategic Plan: “Goal #2: To develop and maintain technology skills for faculty and staff” (III.C-10). The goal is to increase technology skills of staff and faculty in the work place. The needs of technology training for personnel have been identified via online requests through the departmental comprehensive Program Review and various meetings including the Professional and Staff Development Committee and Council of Instruction.

At the beginning of the semester and during the semester, the College regularly offers technology training opportunities for faculty and staff. A Media Specialist provides training sessions or one-on-one training on the use of audio-visual equipment in the classroom (III.C-11); Web Designer and Computer Network Support Specialists provide training sessions or one-on-one training to faculty on how to use the Faculty Portal to upload class syllabi (III.C-12). Since 2010, in addition to one-on-one training, the training sessions requested by department chairs have been conducted in a group environment. The new training format is based on the collaborative model where people engage in a common task, ask questions, and interact by sharing experiences about the training subject. Faculty and staff technology training opportunities are also offered frequently through the Professional and Staff Development Committee (III.C-13).

In partnership with Title V Hispanic Serving Institutions, the Teacher Prep Program, and the Professional and Staff Development Committee, the Information Technology Office has joined the online learning Microsoft IT Academy (III.C-14). MS IT Academy courses consist of the Microsoft Office Suite, which prepares users for the Microsoft Office User Specialist (MOUS) examination and enhances staff skills at their work place. Online video trainings (III.C-15) on how to use college resources are available for review and for new hires.

Additional technology training workshops for faculty and staff are provided by District personnel whenever there is a new software feature or a new software application that would affect the use of a District wide application. Several workshops have been provided by District personnel on campus: Systems, Applications, and Processes (SAP), and Electronic Budget Transfer Authorization (eBTA) workshops. PowerPoint presentation files were posted on the Web site for review after the workshops as well (III.C-16).

Technology training for Information Technology staff is a part of the completion of the new buildings and provided by vendors; examples include Smart classroom trainings for the Health and Fitness Athletic Complex, Culinary Arts Institute and the Center for Math and Science buildings. Any new technology project being implemented and funded through Bond A/AA or Measure J always includes a training component with IT staff.

### **SELF EVALUATION**

The College assesses the need for information technology training based on current trends in the technology industry and on what is required to accomplish business and academic computational tasks in support of the College mission of student success. In the Fall 2011 Faculty and Staff Survey (Table 4), about two-thirds of respondents either strongly agreed or agreed with the following statements (III.C-17): “*When I have received technology training, it has been effective and of high quality*” (68%), and “*When I need technology training, it has been available*” (66%). These survey results indicate that the College is doing an adequate job of serving the technology training needs of most of its faculty and staff. Only about a third of all respondents either disagreed with these statements or reported having no experience with technology training.

While most faculty members are eager to use technology, the College lacks the resources to provide training for all faculty to ensure widespread integration of technology and timely incorporation of technological innovations in teaching. Technology training workshops usually take place in a computer classroom where academic classes are scheduled. A dedicated training

center would increase availability of technology training sessions and provide more opportunities for hands-on experience with new technology to better meet faculty needs.

**ACTIONABLE IMPROVEMENT PLAN**

See recommendation in Standard II.C.1.b.

**III.C.1.c. The institution systematically plans, acquires, maintains, and upgrades or replaces technology infrastructure and equipment to meet institutional needs.**

**DESCRIPTIVE SUMMARY**

Los Angeles Mission College systematically plans, acquires, maintains, upgrades, and/or replaces technology infrastructure and equipment to meet the institution's needs through a well-developed process that involves the College Technology Committee and Information Technology Office. The College Technology Committee ensures that the technology-related activities of the Strategic Master Plan and the Technology Master Plan are being implemented. The Information Technology Department is responsible for the overall selection, installation, maintenance, update, and upgrade of all technology infrastructure of the College. At the District level, the District Information Technology Department is actively involved in all tasks related to network security and District wide application (III.C-18).

In addition to these processes, the District Technology Committee, comprised of IT managers from the nine campuses and the Chief Information Officer, is responsible for recommending network policies, standards, and driving details of the discussion about District wide projects which are implemented across nine campuses. Several District wide projects, standards, and policies are listed below:

**District Wide Projects:**

- **Student e-mail:** Implementation of Microsoft e-mail for students and alumni (III.C-19).
- **Student Information System (SIS):** The current SIS, Legacy, has been in place for over 30 years. By implementing a new system, the colleges will have the opportunity to increase support for students' academic success throughout the student lifecycle. The new SIS will unify and improve communication with many student services areas.
- **One Card System:** This system is intended to enable the District, nine colleges, and related satellite offices to have one single database allowing a single ID card for all students, staff, and faculty to access parking, bookstore, cafeteria, and financial aid services.

**District Wide Standards:**

- The District and nine colleges will work in collaboration to develop standards for the data center, network cabling, data storage, desktop computers, printers, servers, and projectors. These standards have played a crucial role in all Bond A/AA and Measure J related technology projects.

**District Wide Policies:**

- Network security policies (III.C-20)
- The use of college computer devices and facilities (III.C-21)

In summer 2009 the College proposed adding the Secondary Data Center (SDC) (III.C-22) for the East Campus and a fiber optic ring on the main campus (III.C-23). The two proposed projects were funded through the bond program. The distance between SDC and the Primary Data Center (PDC) on the main campus is within one mile. The SDC is located in a single story building to lessen earthquake impact as opposed to the PDC which is located at the lower level of a two-story building. The SDC is accessible to building cabling vaults and connected to the power generator. The SDC is not just a redundancy of the PDC; it also reduces the workload of the PDC. The redundancy feature of PDC and SDC provides for business continuity and disaster recovery to meet mission critical needs in the learning and teaching environment. A plan for full redundancy of all mission-critical systems is expected to be in place after the completion of the East Campus. Currently, all critical data such as e-mail, student database, and Web site content is routinely backed-up and stored at Harbor College data center as an off-site storage.

The College network is a unified platform providing voice, video, and data over a redundant infrastructure. All buildings on the main campus are connected to the primary data center by a redundant fiber optic ring. The ring was configured for fail over in the Intermediate Distribution Facilities (IDF). Most of network infrastructure equipment is protected with an annual service contract agreement. Critical servers are using virtual technology which minimizes downtime and ensures server uptime.

The College is enrolled in the Microsoft Campus Agreement and Adobe plan. This allows upgrading of computers to the newest versions of Windows Office Suite and Adobe Professional version.

The College has been successful in maintaining, upgrading, and expanding from 11 to 41 Smart classrooms funded by specially funded programs and Bond A/AA (III.C-24). All of these classrooms are equipped with mounting projectors, electronic projector screens, speakers, computers, DVD players, and Internet access. The plan to convert all regular classrooms to smart classrooms by using bond funds was proposed in 2009. The project is waiting for approval from the Division of State Architects (DSA) (III.C-25).

As newly constructed Proposition A/AA and Measure J buildings come online, there will be additional demands for support and maintenance placed on Information Technology and Media Services staffing. In 2009 resources for support and maintenance were proposed in the annual unit plan Program Review.

**SELF EVALUATION**

The Information Technology staff has made great efforts to support newer technologies despite the limited funds for formal training and staffing. The specially funded programs and bond funding have been good resources for starting new projects, but these funds cannot be used for ongoing operational support and staffing.

### **ACTIONABLE IMPROVEMENT PLAN**

Technology Committee Co-Chairs will propose an assessment plan and approval process for all long-term technology projects by fall 2013.

#### **III.C.1.d. The distribution and utilization of technology resources support the development, maintenance, and enhancement of its programs and services.**

##### **DESCRIPTIVE SUMMARY**

Program reviews and annual assessments, which include technology requests, are completed at the end of each year by units, departments, and programs. Department requests are analyzed and discussed by the department chairs and division managers. Once formalized, division managers forward the list to the Budget and Planning Committee. The Budget and Planning Committee then makes the decision as to which technology requests are to be funded and sends its recommendations to the College Council.

Technology equipment consists of computer hardware, software, printers, and audio-visual equipment. The computer replacement plan in the Technology Master Plan (TMP) is based on the categories of computers from high usage labs to the low usage labs (III.C-26) to minimize the College's expense and be as efficient as possible. The TMP also outlines a strategy to replace computer hardware at the rate of 25 percent to 30 percent each year allowing for 100 percent replacement over a four-year period. This strategy is implemented when budget and resources allow, although computer hardware is often purchased through bond funding as part of the Furniture, Fixture, and Equipment (FF&E) budget category for new buildings.

Over the past few years, computer and printer replacement plans have been driven by various budget resources including Title V, Career Technical Education (CTE), Teacher Prep Program (TPP), and Bond programs A and AA. As result, 90 percent of student lab, faculty, and staff computers are Pentium 4 with LCD screens. Out-of-warranty computers are typically replaced with relatively new machines from student labs that have been updated or with brand new machines when funding allows. The categorical programs have the opportunity to identify technology needs through CTE funding. Department chairs and the CTE Dean make decisions in consultation with the IT Manager to distribute technological funds to ensure the requested equipment matches equipment standards on campus.

To support online education, Moodle shells are populated by the District. At the campus level, the Distance Education Coordinator and IT senior staff administrators provide support for the Moodle online courses. EZproxy server was setup in 2010 allowing online students access to library resources from off campus (III.C-27).

The College has made provision for a secure infrastructure by recent upgrades and the replacement of infrastructure and equipment. The fiber optic, copper, and coaxial cable plant upgrades started in 2007 and were completed in 2008. The College keeps its infrastructure up to

date by using District cabling standards for all new construction and by purchasing technology products with the maximum years of warranty and support.

Rapid technological innovation has a significant impact on how to deliver the information to students, staff, and faculty most efficiently. The College has responded to changing lifestyle and demands by delivering more information along with providing more services on the Web and through the Student Portal (III.C-28) and Faculty/Staff Portal (III.C-29). In addition to these processes, the District Technology Committee, which is comprised of IT Managers from the nine campuses and the Chief Instructional Officer, is responsible for recommending policy and driving details of the discussion about infrastructure at the campuses.

### **SELF EVALUATION**

The development, maintenance, and enhancement of College services are accomplished through the effective distribution and utilization of technology resources. Technology resource allocation is driven by the Program Review process and guided by the goals and objectives of the Technology Master Plan and the College Strategic Plan.

#### **ACTIONABLE IMPROVEMENT PLAN**

See recommendation in Standard III.C.1.c.

**III.C.2. Technology planning is integrated with institutional planning. The institution systematically assesses the effective use of technology resources and uses the results of evaluation as the basis for improvement.**

### **DESCRIPTIVE SUMMARY**

The College is engaged in a systematic assessment of the use of technology resources. The Technology Committee meets regularly and developed the 2010-2015 Technology Master Plan, which was approved by the Academic Senate, Educational Planning Committee, and College Council. Institutional assessment of technology effectiveness occurs annually by the Technology Committee. The annual assessment addresses the progress and effectiveness of objectives and actions listed in the TMP. Additionally, the TMP goals and objectives are reviewed at the Annual College Council Retreat (III.C-30).

Student, faculty, and staff surveys focusing on campus services were developed and distributed to gather data to support thorough and realistic evaluations and assessment of Service Area Outcomes. In addition to the survey data, other assessment data is collected and analyzed, and the results are summarized in annual comprehensive Program Reviews reported by department chairs.

## **SELF EVALUATION**

Planning for technology is fully integrated into institutional planning through the College's Educational Master Plan, Strategic Plan, Facilities Master Plan, Technology Master Plan, and Program Review process. The outcomes of the faculty, staff, and student surveys are used to assure quality and continuous assessment and improvement. Technological resources are allocated where they will most significantly support the College's sustainability and stability and have the most impact on student success.

## **ACTIONABLE IMPROVEMENT PLAN**

No recommendations at this time.



**STANDARD III.C – EVIDENCE**

Evidence documents can be found at: <http://www.lamission.edu/2013accreditation/IIIC.aspx>

- III.C-1 LAMC Annual Technology Update
- III.C-2 LAMC Technology Master Plan Discussion during 2009-2010
- III.C-3 LAMC Technology Master Plan (2010-2015)
- III.C-4 Program Review Resource Requests
- III.C-5 District Technology Committee (DTC)
- III.C-6 Fall 2011 Faculty/Staff Survey
- III.C-7 Fall 2011 Student Survey, Pages 7, 8
- III.C-8 LA Mission College YouTube Channel
- III.C-9 Library Science Course
- III.C-10 Refer to III.C-3
- III.C-11 A/V One-on-One Training Requests
- III.C-12 Uploading Syllabi One-on-One Training Request
- III.C-13 Technology Training through Professional and Staff Development Committee
- III.C-14 Microsoft IT Academy
- III.C-15 Video Tutorial
- III.C-16 SAP, eBTA Workshops
- III.C-17 Fall 2011 Faculty and Staff Survey
- III.C-18 District Technology Committee Meeting Agendas and Minutes
- III.C-19 District Wide Student E-mail Project
- III.C-20 LACCD - Network Security Policies
- III.C-21 LACCD - Use of College Computer Devices and Facilities Policies
- III.C-22 LAMC Secondary Data Center Proposal

- III.C-23 LAMC Campus Fiber Ring
- III.C-24 LAMC Smart Classroom Projects (New Buildings)
- III.C-25 LAMC Smart Classroom Upgrade Project Plan (Existing Buildings)
- III.C-26 Refer to III.C-3, Goal #6
- III.C-27 EZproxy Library Resources
- III.C-28 LAMC Student Portal
- III.C-29 LAMC Faculty/Staff Portal
- III.C-30 Annual College Council Retreat