III. C. Technology Resources

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III.C. 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.

III.C., III.C.1. Descriptive Summary

There are two main departments that provide computer technology support to the campus:

1. Computer Services is responsible for hardware computer support relating to the administrative offices of the college including the “non-teaching” faculty (approximately 150 machines).
   a. The department includes personnel responsible for the operation of the PBX telephone and Voice Mail system and repairs of computer related equipment. [Is this accurate? Later we say that telephone/voice mail is handled by a position in Administrative Services.]
   b. The Webmaster is responsible for the display and uniformity of the College’s Web Page contents.
   c. Campus reports are generated through this office.

2. Information Technology Center (ITC) operates the major servers on campus and supports the actual network within the campus. ITC is primarily responsible for computer hardware on campus for approximately 300 teaching faculty/lecturers. There are two sub-units under it as well as the main staff.
   a. Technical Desktop Support (TDS) is responsible for software support for the teaching faculty.
   b. Student Computer Lab (see below)
   c. Technology Advisory Committee is (Vern, please describe.) comprised of faculty representatives. This committee informs and advises the Educational Media Center (EMC) and Information Technology Center (ITC) on matters involving budget,
equipment, and personnel, and encourages faculty participation in discussions about new instructional technology. [from the Committees page on the Intranet]

(There is one person under Administrative Services who is responsible for the voicemail system and computer printer repair.)

The following services are offered to support learning and/or teaching:

1. Individuals in various departments purchase their own laptops, projectors, and other needed multimedia equipment. Power Point presentations are increasingly employed in instruction. Support services for multimedia (e.g., Power Point, ELMO, overhead projector, DVD/VHS) is provided by essentially two departments at HCC:

   a) The Educational Media Center (EMC), located on the third floor of Building 7, is the technical academic support service center, which assists faculty, staff, and students in their teaching/learning endeavors. Services include duplication of study materials, tests, and various forms needed by the faculty, staff, and students; production of graphic and photographic materials; website design and development; production and duplication of audio-visual instructional materials; surveying and installation of wireless local-area networks/wide areas networks; inventory control on the campus’ audio-visual equipment, and satellite down links.

   The EMC staff advises personnel on the types of equipment needed, educates users and operators on proper usage, installs and secures equipment in classrooms, repairs or replaces failing equipment, and acts as the repair/replacement resource for failing multimedia equipment. Subject to availability, loans of multimedia equipment are available from the EMC as well.

   b) The Library is located on the first two floors of Building 7 and has six study rooms for students, 309 study carrels, with table seating for another 45 students. Computers are available for searching the collections of the Honolulu Community College and University of Hawaii system libraries, additional computers are available to access online subscription databases and the Web for students’ research. All of the Library’s subscription databases can be accessed remotely. Laptop users can connect to the Internet through the Library’s wireless network. Librarians teach students how to search databases and the Web in bibliographic instruction sessions. Reference services are provided for patrons either in-person or via telephone or the Internet. The Library provides day-to-day loan of audiovisual equipment to faculty and staff.

2. Open Computer Labs for Student Use

   a) The Student Computer Lab is located in Building 2 on the fourth floor. It is available Monday through Friday, with evening hours on Monday through Thursday. It is also open for a half-day on Saturdays.

   The purpose of the computer lab is to provide a facility where students can do homework assignments on computers, as well as access the Internet and e-mail at no cost. Classes are offered at the beginning of each semester on software training and Internet usage. There are between two and five lab monitors available (plus the Lab
Manager, depending on the time of day) to offer support and monitor student activities.

Any registered student of the College may obtain a free student account, which provides a user e-mail account, and location on a server to store computer files. Students may obtain an account by coming to the computer lab with a current HCC Student ID that has the current semester’s sticker on it and filling out a "Request for A Network Account" form. Students mostly use the lab for schoolwork: word processing/printing, Internet research, graphics, and communication: email, chatting, and bulletin board posting. Viewing of pornographic or offensive material is strictly forbidden, and the students are not allowed to play computer games in the lab either. Chatting (instant messaging) is only allowed at specifically designated computers, and the lab monitors enforce these rules and restrictions, in addition to offering technical support.

The Lab has fourteen Dell P4 PCs with flat-screen LCD monitors for student use, one of which has been equipped for students with disabilities. There are twenty-two PDC x86 PCs with CRT monitors. The lab has ten Macintosh G4 machines with flat-panel LCD monitors, four G3s, and twenty PowerPC Macintosh machines for student use. One of these has also been adapted for students with disabilities. There are three desktop scanners hooked up to the Mac machines with the image manipulation software, and five (black & white) printers are available for students to use. A projector is set up for usage during the classes/workshops.

b) Native Hawaiian Computer Lab is located on the fourth floor of Building 7. It is open Monday through Friday, with evening hours between Monday and Thursday. The hours are posted on the College’s website and in the telephone directory.

While federally funded by a grant to serve the Native Hawaiian students at the College, the center and its services are extended to Non-Native Hawaiian students in keeping with the Hawaiian value of sharing. There are 23 machines (12 Macs, 11 PCs), one laser jet printer, and one scanner for student use. The lab is also multimedia equipped for classroom use with an overhead LCD projector, VHS player, large projection screen, Elmo projector, and mounted speakers. All stations are Internet-enabled with access to the World Wide Web and the College’s network and e-mail system. All stations are also support multimedia software for video and audio playback and are equipped with the Microsoft Office suite of applications (Word, Excel, and PowerPoint). There are two ADA compliant stations (Braille/large print keyboards, screen magnification, special mouses). There are five graphics/web design stations, and six typing tutorial stations. Computer applications include word processors, spreadsheets, databases, presentation software, streaming media players, graphic software, and web design software. The lab offers Internet access for class research and e-mail, typing tutorials, and software training workshops for various applications.

Students need to present a valid student I.D., have a student user/e-mail account, and their own PC formatted floppy disk/Mac zip disk, money or paper for printing. Students must not download copyrighted material from the machines or access adult sites or material. The lab is for school use only and not for recreational or personal chats.
c) While not considered a “lab,” there are four computers available for students for registration purposes in the lobby area of the Admissions & Counseling office.

3. Classrooms: Computers in classrooms are usually limited to students enrolled in a particular course. The individual departments are responsible for basic maintenance of their own computers. The most fully equipped classrooms in terms of computers are in the Information and Computer Science, Architectural, Engineering, & CAD classes, Computer Electronic Network Technology, and Communication Arts programs. A number of other technical programs and classes have some computers for their students including programs not on the main campus such as Aeronautics Maintenance Technology (AERO), Automotive Technology, Aviation Technology (AVIT), and Small Vessel Fabrication and Repair (VESL). A number of science classes use computers in their curriculum such as Chemistry, Oceanography, and Physics classes. The ITC has the most current inventory of where computers are available for students on campus.

There are over fifty classrooms and conference rooms that are equipped with some combination of the following multimedia equipment: mounted LCD projectors, white screens, visual presenters, VCR’s, DVD, A/V receivers, speakers, and cable TV access. The EMC helps to install and provide technical support to the faculty of these classrooms. For security, LCD projectors are mounted to ceilings to reduce accessibility and vulnerability to theft. Multimedia classrooms require lockable doors and must be locked when not in use. As far as off campus programs, there are three complete multimedia classrooms at our AVIT program, two LCD projectors with visual presenters and computers at AERO, and an LCD projector at VESL. All three sites have one or more TV/VCR cart systems.

4. Program Specific Equipment/Tools – Most programs consists of a copier, overhead projector, VHS, CD, DVD player, Elmo, and may include an overhead laser projector. Other non-computer technology specific to a program’s needs is based on changing technology in a particular program or industry. This is most evident in the trades courses as well as science labs. Some of the technology found in the trade programs include laser cutting systems, plasma cutter, water-jet cutter, high volume vacuum pump, 5-axis router, wheel balance machine, wheel alignment machine, MIG, TIG welders, wood planers, etc. Examples of non-computer science lab equipment include microscopes, oxygen meters, air compressor, pumps and filters, salinometer, etc.

5. Distance Education is offered through cable, on-line, or cable/on-line courses. Cable courses require students to be a cable subscriber and check to see if their area receives the public access station for higher education programs called “Olelo.” Cable classes are offered on Channel 55 from the various islands’ (Oahu, Kauai, Maui, Kona/Hawaii) cable providers. Cable productions are filmed and edited at the College. The DVD is then sent to the University of Hawai‘i at Manoa’s master control and its server sends the video to Olelo. For on-line classes, a student must have Internet access, experience with computer applications and e-mail, a University’s E-mail account, and the current version of Netscape (8.0) or Internet Explorer (Windows XP or Internet Explorer 6 Service Pack 1). This information is elaborated on the College’s website.

Telecourses are produced in the EMC TV studio, which includes video cameras, switchers, wireless microphones and their receivers, lighting system (with generous lights, cables,
stands), and computers with special software. Post-production systems are comprised of computers with specialized non-linear digital editing software.

6. The Pacific Center for Advanced Technology Training (PCATT) was established by the Hawaii State Senate to serve as a resource for businesses looking to establish itself in the State. PCATT’s mission is to develop and provide training in advanced technology applications that enhance economic and workforce development programs and initiatives in the State of Hawai‘i and the Pacific Rim. PCATT’s specific goals are to:

- Develop training programs for key technologies in the State
- Provide customized training for business and industry in advanced technologies.
- Participate in national training consortia to keep abreast of changing workplace requirements and new programs.
- Bridge education and industry through quality workforce training.
- Serve as the focal point for technical training in the Pacific Rim
- Respond first to emerging technical training areas.
- Proactively support the development of technology training in the high schools, community colleges, and the University of Hawai‘i.

The following technology is used for college-wide communications:

1. E-Mail is the primary means of communication on campus. Supported software used to access email includes Microsoft Outlook 2000/2003, Outlook Express, Pine, and Web mail and are primarily used by faculty, staff and students. Students are given an account to be used for campus-wide communication. Once they are no longer enrolled, ITC will notify the student and disable the account. Distribution (mailing) lists are frequently used to send E-mails to targeted student and faculty/staff populations. These lists are created by ITC and the maintained by the requestor.

2. The College’s Website (Internet) is a major source of communication not only within the college but also to the general public. There is information about all of the programs (including their descriptions and requirements) and the various services offered at the College, including links to faculty and staff for direct e-mail access. There is access to the college catalog, the current and upcoming semester’s class schedule, technical standards, calendar of events, and other useful information. The contents are provided by various departments on campus but the Webmaster is ultimately responsible for the Website’s display in terms of uniformity and legality. There is also a link to the University of Hawai‘i (UH) student information system (see Operating Systems).

3. The College’s Intranet is for faculty and staff use, also administered by Administration and Computer Services. It includes information about the various committees, policies, and services on campus, including on-line forms that can be printed as needed. There are quick links to the College and UH Web Mail, MyUH Portal for faculty use (eg. grade input), and other announcements.

4. The College’s phone system is PBX with a Nortel Call Pilot voice mail system that supports around 500 extensions on the main campus. Campus facilities at other locations (Aeronautics, Automotive, Marine, etc.) are not on the PBX and operate independently through the local phone system. PCATT is using an intradepartmental IP based phone/VoIP
The voice mail system is handled by Administrative Services. It allows the faculty and staff to:

a. Record incoming messages when they are away from their phone or when their phone is in use.
b. Use three different greetings (a greeting for calls originating from within the campus, a second greeting for calls originating outside the campus, and a temporary greeting for special cases that expire after a fixed date).
c. Forward voice mail messages to other voice mail users.
d. Call other extensions as well as leaving a message.
e. Check for messages from outside their office or campus.
f. Store up to 10 voice messages per user.

5. Video-Conferencing is provided by the EMC and has been used for interviews with off-island applicants unable to travel to Oahu and access to workshops or other presentations given by other UH system schools. The video teleconferencing ability is via Polycom and other computer/network based systems such as Microsoft NetMeeting. It has even been used to instruct students in Japan.

6. Broadcasting is provided by the EMC through the College’s cable TV system and has been used to televise campus meetings and events. Approximately 35% of the classrooms have cable access. In addition, the EMC maintains a HITS system which ties this campus to other campuses of the UH system as well as the University of Hawaii at Manoa. Also, videotapes have been produced by the EMC to recruit students from the high schools.

The following technology support is available for research:
1. Campus reports can be generated through the office of the Administration and Computer Services, headed by the Director of Management Information and Research upon request.
2. PCATT researches technology training needs in the community.

The following technology support is available for operational systems:

1. Computer Services maintains three production and two-test systems running the Windows 2000 Server operating system. One production system handles the general file sharing services and an application called Scheduler Plus, which supports room scheduling for the campus. The second production system runs an application called Classware, which supports the college’s non-credit operation. The third production system holds scanned student records from 1986 and before. The two test systems are used to test software installs and new hardware before being applied to the production systems.

2. The on-line student information system is called My UH Portal, a web-based software system using the SCT Banner program. Approximately 1000 computers are available for students to access for registration and school-related purposes. Students are not only able to register online, but also look up their personal student record and financial aid status using their account.
username and password. A student can register or access their personal student information from any Internet access. Student information from all UH system schools statewide (seven community colleges, and three universities) are tied together and have shared access. This uniformity necessitates common policies, deadlines, and practices within the system to supposedly lessen the confusion for the student transferring from one campus to another.

3. ITC operates seventeen servers on campus, which deal with the email system, web server, user authorization, traditional Unix shell access, network file storage, network routers and network address resolution. These systems run either the Sun Solaris or the Debian Linux operating systems. ITC also supports the actual network within the campus.

III.C., III.C.1. Self-Evaluation

The college meets the standard.

Individual departments and divisions within their departmental/division budget limits identify their equipment (purchases) and support needs. What does not seem to be clear is the priority in which certain individuals or departments have their technology needs met before others. There is no real indication of how these decisions are made. What technology needs should be met first? Is it based on number of students served? Who has the oldest equipment? Is it a critical element of the program? Is it the one who asks first or the loudest? It is probably a combination of all of these but it is not clear or “transparent” as to what is given priority, especially where “end-of-the-year” monies are concerned.

Individual programs identify their needs and decide on the type of equipment to be purchased with suggestions on what to buy made by ITC or Computer Services. They then go through various stages in acquiring their technology equipment. ITC recommends that the college become familiar with their hardware and software recommendations or consult with them before purchasing any hardware and software for better technical support. It is also important that the CLT make their continuants aware of this information.

EMC/multimedia: Faculty and staff request equipment through their units’ chairs and deans. The equipment includes full multi-media systems; video projectors; VCR’s; DVD’s; visual presenters; a-v receivers; speakers; etc.

For distance education, needs and priorities are monitored and met by UH HITs system and Olelo with some input from the EMC Director and may also involve other community college campuses. For example, if one campus is producing a course, essentially no other campus will be making the same course to compete for Olelo funding.

PCATT uses both industry and customer input to determine technology needs. In addition, PCATT facilities are constantly evaluated by customers and staff. These evaluations are used to generate both a one-year and a three-year plan for facilities. The plans are reviewed each year. The Global Learning Network (GLN) project could be used for distance education, but it has only been taught in a classroom setting to date.

Evaluation of the effectiveness of technology in meeting the needs is conducted to various means.
PCATT: Each year PCATT has a formal meeting of its advisory committee to review the past year’s performance. The Policy and Oversight Board members come from the private sector and provide valuable input with regard to technology development expectations. PCATT customers evaluate the facility after each course and the data from the customer evaluations is kept on file. The PCATT staff meets regularly to assess the effectiveness of PCATT facilities and makes recommendations on improvements.

The Student Computer Lab: The Lab is planning to conduct annual surveys to evaluate student satisfaction with the resources, technology, and services provided.

EMC/multimedia: In addition to the current 30 item survey, another survey is being developed to evaluate the EMC’s services and performance. It will be brief, about four or five questions. Questions are currently being developed. The EMC is also determining how and when to administer the survey. For example, should each completed service request be surveyed? In addition, EMC personnel receive informal comments regarding how satisfactorily the work was done or otherwise.

ITC: The effectiveness of desktop support objectives is evaluated periodically based on current standards. However, staff shortages have resulted in delayed response time. For example, one of the objectives states that “employees will receive support for installing and setting up their computers in a timely manner.” In this case, “timely manner” could mean two weeks. In order to shorten the response time, more staffing is needed.

Computer Services: The Director is fairly new in the department and has not seen enough of the process to make a well-informed assessment. She has attempted to respond based on what she has observed to date. They depend on feedback from constituents if technology (equipment) is meeting present goals. It appears that there is not a planned process in place and that the effectiveness of technology in meeting range of needs is based on who/where/when it is requested by individuals, programs, and the like. Because their department is heavily dependent upon technology they believe that these issues have been addressed.

Departments: Individual departments use feedback from their users to determine if their technology equipment is meeting their needs. Sometimes even when the needs are identified and expressed through the appropriate channels, the college always seems to be in a budget crisis. Therefore, computer needs are not being addressed.

From the overall responses in the faculty survey, there is a mixture of those whose needs are met and not met. The common area of note is that although needs are being met to some degree, the process is questionable. Many believe that there is no formal process in place. It appears that there is some sort of plan or at least some attempts to formulate a plan but it is not yet clearly defined. It seems that there is no standard practice in regard to checking effectiveness if needs are being met and everyone has their own unique way of checking if it works or does not.

However, since the faculty survey and as of this writing, ITC is making strides in communicating their goals and mission, policies and procedures, and general accessibility to the campus. ITC staff has become more aggressive in reaching faculty and staff to determine its effectiveness.

PCATT appears to be meeting the standard for identifying its technology needs, and evaluating the effectiveness of its technology. In addition, (based on customer evaluations) PCATT is effective at meeting those needs. In terms of an existing action plan, PCATT will continue to
use customer and industry input to evaluate its technology needs. The facilities are constantly evaluated and one and three year plans for the facilities are generated and reviewed each year. Beyond the existing plan, PCATT is adding instructor assessment of the equipment to the input they consider in satisfying their technology needs.

Student evaluations of PCATT facilities indicate a high level of satisfaction. Companies that rent the PCATT facilities have also been satisfied. The data are available for review. Because of the advanced nature of PCATT curriculum, courses cannot operate without adequate equipment. In addition, PCATT’s many training agreements with vendors (such as Cisco, Microsoft, etc.) mandate a certain standard with regard to hardware and software. The customer evaluations (indicating a high level of satisfaction) show that those standards and requirements are being effectively met.

In regard to the phone system, upgrades of the Nortel PBX occurred in 1992 and 2002. The forces behind these upgrades were not recorded. Possibly 2012 would be a good target date for complete weaning from the traditional PBX infrastructure.

PCATT: ITC develops the technology policies and procedures with regards to computer technology. Therefore, it is responsible for obtaining input from employees and classes. In terms of identifying equipment, computer hardware, and computer software needs, the industry partners outline those needs. PCATT complies with industry guidelines so that industry curriculum can be used. Additionally, the software requirements often dictate the supporting hardware and equipment needs. PCATT staff also provides input as to the quality and quantity of equipment required by industry partnerships.

ITC’s policies, procedures, standards, and other related information are posted on its website on the College’s intranet listed under “Computer Help.” ITC staff has been making a concerted effort to communicate with the college. The staff has in the past met with the Campus Leadership Team to explain ITC’s policies and procedures; spoke at the General Faculty Meeting at the beginning of the semester; and recently offered an Open House of their services. Future plans include monthly meetings with faculty and staff to answer questions regarding ITC’s operations.

Computer Services has an informative website on the College’s Intranet with a user-friendly “Frequently Asked Questions” format. However, it is listed under “Admin. Computing KB” and when you open it, it says “Computer Services Knowledge Base.”

The Native Hawaiian Computer Lab has easy-to-find and informative website about its hours of operation, services offered, software and machines available, policies of computer use and more.

The Student Computer Lab has a website but instead of being listed under Services and Information on the home page, you have go into “Information for Current Students” before locating the Student Computer Lab information on another screen.

The HCC Phone Directory lists information on the various office location, hours, etc. for the Student Computer Lab, Native Hawaiian Computer Lab, and Library. It also lists guidelines on who and where to call/e-mail for computer assistance.

III.C., III.C.1. Action Plan
• Formulate a plan that outlines means to identify the technology needs, including replacement cycles.
• Regularly evaluate and update the plan to ensure that the needs are met.
• Develop short- and long-range goals and establish processes to meet these goals, tying in with budget planning. Inform faculty and staff of these processes.
• List both Information Technology Service (ITS) and Computer Services under “Computer Help”. Be consistent in the name of Computer Services or Admin. Computing.
• In the College’s Internet, list the Student Computer Lab under Services and Information as well as under Information for Current Students.
• Improve or upgrade the EMC’s cable infrastructure: CCTV to 1Ghz total upgrade; move from analog to digital; upgrade video projectors and TVs to HDTV with 16:9 format; video projectors need to have Internet connectivity to enable efficient access to operational status from a remote site; and VCRs need to be upgraded to DVD/VCR combination units.

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

III.C.1.a. Descriptive Summary

ITC maintains records of computer systems and loaded software. The Technology Advisory Committee makes recommendations for purchases and upgrades of hardware for faculty and student lab computer systems. Software is either purchased directly for small orders or is acquired through the UH software licensing agreements in large quantities

In terms of multimedia, faculty and staff request new equipment through their Division Chairs or Deans. These Division Chairs and Deans meet and prioritize the equipment needs within their budget constraints and other considerations. The EMC Director contributes input by advising as to the present state of technology for the respective multimedia equipment (performance vs. cost). The Director tries to acquire as much as possible within the allocated funds, always trying to balance years of effective use with the state-of-the-art and funding. Most equipment goes into creating new systems or adding to existing systems. Often older equipment becomes obsolete and replacement parts are not economically feasible. The next stage of acquiring equipment needs goes to the next level where they again compete for prioritizing against other departments needs and finally, funding. In the case of the EMC, although limited, the College has provided some funding for critical media needs for classrooms. In the past there was a yearly process for submitting a replacement equipment schedule, which was a part of the annual budgeting process.

PCATT uses both industry and customer input to determine technology needs. In addition, PCATT facilities are constantly evaluated by customers and staff. These evaluations are used to generate both a one-year and a three-year plan for facilities. These plans are reviewed each year.

Computer Services: Application software is based on recommendations by the University of Hawaii Information Technology Services (UH ITS) and ITC, with some consideration to what similar offices on the other Community Colleges in the system are using.
III.C.1.a. Self Evaluation

The College meets the standard.

Two hundred and thirty students, who have either used or aware of distance education, rated it as follows:

- Poor - 8.15%
- Fair - 16.7%
- Good - 56.2%
- Excellent - 18.9%

Since more than 75% of the students rates distance education good and excellent, it appears that distance education is well supported. Currently, PCATT is not directly involved with distance education. The Global Learning Network (GLN) project could be used for distance education, but it has only been taught in a classroom setting to date.

Regarding Computer Services, two issues need to be addressed: servers and desktop computers.

1) Servers
   a. Reliability: There is no Uninterruptible Power Supply (UPS) for the servers.
   b. Disaster Recovery: Of the three productions servers, two of the servers’ user data are automatically backed up to another disk drive each weekday night and then that data is backed up to tape on the next business day. The tape is then kept for 4 weeks after which it is reused again. The third production server has no data that changes on a daily basis but there is an external disk drive assigned to it for backup purposes when the situation requires it. The test servers are not backed up.
   c. Privacy and Security: For the general purpose file server each person has their own login and only has access to their assigned network drives. The servers are located in a room that is locked and only authorized personnel have access to the room. For the Scheduler Plus and Classware applications, the authorized users of those applications have the client software installed on their desktop computers.

2) Desktop Computers
   a. Reliability: When new computers are purchased, either a 3 or 4-year warranty is included that will cover replacement parts for hardware failures. No UPS are used for desktop computers.
   b. Disaster Recovery: There are no automatic backups for desktop systems, users can manually backup their data by using the network drives that are available on one of the production servers, burn it to CD or transfer it to USB flash drives.
   c. Privacy and Security: Anti-virus software is available via a site license agreement between the University of Hawaii and McAfee. Currently McAfee’s VirusScan Enterprise 8.0i is installed on all computers and the software automatically retrieves the anti-virus update from a server located on the UH Manoa’s campus. Each desktop computer running Windows placed on a person’s desk has the login screen enabled so only that person and any other authorized person can use that desktop computer.
Professional support for the College’s technology resources is provided by the these positions and departments:

Administrative Services: One full time staff member maintains the voice mail system, installs phones, and repairs computer equipment.

Computer Services: Four full time staff members. Two staff members provide support for student records, one staff member maintains the College’s web site and Intranet, and one staff member handles user support.

Educational Media Center: One faculty Director, one media specialist for media production and instructional design, one electronic technician for maintenance and repair, one ‘Olelo-funded media specialist for distance education cable course, one clerk-typist, and student assistants.

Print Shop: The publications specialist is the supervisor. There are two full-time staff and two graphic artists.

Pacific Center for Advanced Technology Training (PCATT): (provide numbers and explain relationship/overlap with ITC)

Information Technology Center (ITC): Three 11-month faculty and five full-time staff members.

Technical Desktop Support (TDS): One full-time staff member (from ITC), three part-time student assistants, and up to four interns earning college credit.

Computer Lab: One full-time staff member (from ITC), and fifteen to twenty part-time student assistants.

ITC recommends that departments and programs with computer labs provide their own technical support, such as with APT (Administrative, Professional, and Technical) positions, but not all are able to do so. Faculty or staff of these departments and programs serve as technology liaisons and do day-to-day maintenance, troubleshooting, and installations, in addition to performing their primary responsibilities.

EMC operations would benefit from additional support positions; there is only one electronics technician, for example, to maintain and repair all of the College’s multimedia equipment.

III.C.1.a. Action Plan

- Conduct periodic surveys of faculty and staff on their technology needs. Use the surveys’ results as basis to plan for providing up-to-date computer systems and software.
- Continue backups of critical systems and provide necessary equipment, such as Uninterruptible Power Supplies (UPS) to ensure their reliability.

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

Upon hiring, a faculty receives a one-on-one training session for a desktop computer from ITC (Technical Desktop Support). Other administrative staff and non-teaching faculty request help as needed from Computer Services.

Various academic programs require students to complete a basic computer literacy course (such as ICS 100 or ICS 101).

When new software packages are available, training sessions are offered, often by the Faculty Development Committee.

EMC provides training for users of multimedia equipment on a one-to-one basis as media systems and additional equipment are incorporated into teaching/instructional methodology. While the EMC does not provide formal training classes or programs, it does educate and train planners and users of the equipment: the purpose of the equipment, the technical specifications, and basic operation. Although limited, the College has provided some funding for training the staff/personnel of EMC but the College does not seem to have a formal procedure to keep staff and instructors up-to-date on technology training and no training is available other than instructional books and training software for on-the-job training.

On a yearly basis, training on how to use the Nortel voicemail system is provided. Individual help is available from Computer Services, or from the staff member in Administrative Services who maintains the voicemail system.

The Library provides instructional sessions in searching the Hawaii Voyager online catalog, subscription databases, and the Web. Classes are presented upon instructor’s request.

III.C.1.b. Self Evaluation

The College meets the standard.

ITC provides workshops for students as requested by instructors. These include introductory classes scheduled at the beginning of each semester. Additional workshops are conducted in response to usage patterns observed in the lab as well as input provided by students.

Training for employees are provided based on employees’ feedbacks, usage patterns of the network account holders, and anticipated need as a result of new technology development. Training needs are also determined by inputs from the Technology Advisory Committee, which compiles anecdotal and formal feedback from the faculty.

Computer Services provides training on the student information system implemented a few years ago. Training is given based on new developments.

PCATT has provided training to credit faculty in technology areas at no cost. Credit faculty members have been trained in Cisco networking, Linux, Microsoft, and Adobe products.
The student computer labs do not have training evaluations. However, the Labs’ staff were open to the suggestion of having a short evaluation that asks if the times were convenient, if the presentation clear, was the training useful, etc.

The effectiveness of training is evaluated differently in the ITC and Computer Services departments. ITC evaluates its training by reflecting on the success of the workshop. Did they garner the majority of our expected attendance? Did the participants leave the workshop with something tangible? They further assess the success of the training by observing for a trend of support requests that follow the workshop. Do they still have the same usage patterns? Did new problems arise out of the proposed solutions?

Computer Services determines the training’s effectiveness from questions that arise after the trainees have had opportunities to use the technology.

Effectiveness of desktop support objectives is evaluated periodically based on current standards, including response time. The standard for response time varies depending on the staffing. In order to provide effective technical support, ITC recommends standard hardware/software to be purchased.

Most HCC employees are aware of the existence of the ITC office and Computer Services but perhaps less aware of the specific objectives in providing support and services. However, it is recognized that more can be done to communicate the types of services offered and where or who to call for assistance. ITC wants to do more advertising of their services, especially for new employees so that a person can be better directed. The phone directory had a great resource page but unfortunately did not have current names or numbers to call. This has since been corrected. As of this writing, the ITC office gave a briefing about its new developments at the General College meeting, posted its missions and objectives on-line, and updated the phone directory page that lists the guidelines on who to call for computer assistance. (The phone directory guideline also includes computer assistance offered by Computer Service staff.) ITC’s mission and objectives are listed on the HCC Intranet under “Computer Help” and includes contact information, new developments, and policy information. Also, the Desktop Support personnel recognize the need to aggressively go out to more classes outside of the Liberal Arts building and off-campus areas as well.

Computer Services has an informative resource page presented in a user-friendly “frequently asked questions” style format on the HCC Intranet. However, it is listed obscurely under the title of “Admin. Computing KB” and when you click on it, it is titled Computer Service Knowledge Base. Other than the nomenclature, this is a helpful resource page. Also, this was on-line since September 2004 to address assessment concerns but has not been publicized enough to the faculty.

There is some overlap of services provided by ITC and Computer Services. Computer Services handles the technology needs for administration, staff, and non-teaching faculty. Both offices assist others outside of their “assigned” population from time to time or will redirect as necessary. One of the issues that ITC wants to address is to change the way IT is done, getting people to be aware of new technology and different ways of doing things. They want to work with support personnel who are in a position to help others so they in turn can help individuals.

III.C.1.b. Action Plan
Assess the campus-wide needs for computer training and provide resources for the training.

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

III.C.1.c.  Descriptive Summary

ITC has an inventory of computers of most faculty at HCC. This will give them an idea of which machines are not capable of the new programs coming out. They are aggressively pursuing and investigating emerging technology. Computer Services who handles the administrative personnel and some non-teaching faculty do not have an inventory list. However, there is a list of software that Computer Services uses to install software on new computers. If the software license requires money to purchase it then it is the requesting department’s responsibility to pay for it.

III.C.1.c. Self Evaluation

The College meets the standards.

While the faculty-staff survey on technology indicates a relative satisfaction for the most part, with campus software needs fulfillment receiving a mean score of 3.09 (on a scale of 1 to 5) and campus hardware needs fulfillment 2.83, the area with the least satisfaction is the hardware replacement plan for the department (2.76) and the campus (2.45).

ITC is in the process of making a proposal to the newly formed Planning Council with regards to a campus-wide replacement policy for computers. This plan will use the minimum hardware requirements developed by ITC to identify people who need to have their computer replaced. These requirements are updated every 6 months.

III.C.1.c  Action Plan

- Develop a campus-wide computer replacement policy and schedule, and distribute to all College constituents.

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

III.C.1.d.  Descriptive Summary

**Missing**
(Decision making process on use & distribution? How are needs monitored? How are priorities determined? Include hardware, software, infrastructure, other tech equipment for on-campus, off-campus, distance-ed.)

III.C.1.d. Self Evaluation

The College meets/does not meet the standard?
ITC updates current hardware and software standards on a quarterly basis and publishes them to the College’s website. They have also just begun publishing an annual report of the state of computing at Honolulu Community College. This document provides a high level overview of information technology issues at HCC. It is also meant to assist the college in long-term budget planning.

There is also a 5-year plan of the campus technology needs (replacement of hardware/software). ITC wants to make the annual report public and to gather input from faculty and staff, to contribute to its accuracy.

Computer Services: The University of Hawaii policy (via the Business Office) mandates an annual inventory of hardware. Records are kept, often by memory or notes of who has the old computers, etc. There is currently no plan to make a priority list; while this can be done, it will take time because there are about 170-180 machines. Dell computers can be tracked on the Dell website through their service tags, but it is more difficult to follow the older, non-Dell machines.

ITC is also aggressively pursuing and investigating emerging technology. Their policy is to update network infrastructure ahead of need. The network infrastructure is updated at every (fiscal) opportunity. They keep a priority list if money becomes available.

The mean score to survey question 34, “The campus distance education courses are well supported by the college’s technology” was 2.94 (on a scale of 1 to 5), indicating that support for distance education is adequate. However, respondents’ comments noted needs for a computer-replacement cycle, and connectivity difficulties when teaching at Pearl Harbor due to firewalls and security requirements of the naval base.

III.C.1.d. Action Plan

- Develop a College computer-replacement plan and schedule, with clearly defined priorities. Include faculty and staff in the planning process. Communicate the plan to all College constituents.

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.

III.C.2. Descriptive Summary

Missing

III.C.2. Self Evaluation

Missing

III.C.2. Action Plan

- Consult with the newly formed Planning Council. Propose that evaluation of the College’s technology resources be a standing topic for the Planning Council.
Propose that the Planning Council, Deans, and Campus Leadership Team (CLT) examine the positions that provide technology support to the College and explore how to improve and/or increase staffing as needed.

III.C. Supporting Documents (not complete)

Annual Report: State of Computing at Honolulu Community College

[Computer Services Knowledge Base]

[Distance Education Website]

Five-year Plan: Campus Technology Needs

[Honolulu Community College Intranet]

[Honolulu Community College Website]

Honolulu Community College Telephone Directory: Computer Assistance (pages 13-14)

[Information Technology Center (ITC) Website]

Interview Bill Becker and Rose Sumajit, Information Technology Center

Interview Jan Lubin, Director, Management Information & Research

[myUH Portal]

[Native Hawaiian Computer Lab]


[Pacific Center for Advanced Technology Training (PCATT) Website]

Request for A Network Account form

[Technology Advisory Committee]

[Technology Survey for Faculty and Staff]

[Technology Survey for Faculty and Staff: Results]

[Student Computer Lab Website]

[University of Hawaii Information Technology Services (UH ITS)]
Documentation to obtain:

“The ITC has the most current inventory of where computers are available for students on campus.”

“ITC maintains records of computer systems and loaded software.”

“ITC has an inventory of computers of most faculty at HCC.”

“… there is a list of software that Computer Services uses to install software on new computers”

“The University of Hawaii policy (via the Business Office) mandates an annual inventory of hardware.”

“They [ITC] keep a priority list if money becomes available.”

PCATT references -- which documents provided the info? -- cite

PCATT evaluations

EMC references -- which documents (interview?) provided the info? -- cite

PCATT has a yearly report that it prepares for its advisory board that documents how PCATT fulfills its mission and goals. These reports are available for review.