Administrative Services
Annual Program Review Report – 2008

I. Mission and Vision of the Program:

Computing Services is a service-oriented department that provides high quality technical support, computing systems and network infrastructure for credit, non-credit and extramural programs within the Maui Community College tri-island community.

Computing Services plans, obtains funding for, acquires, installs, and supports the appropriate/necessary equipment, software and communications for the education, training and use of suitable computer applications for instructional, academic, administrative and student support for the college's tri-island community.

Computing Services provides computing hardware and software management in support of the daily operation of the college. Functions include hardware and software support services, network infrastructure and Internet access support, computer and peripheral installation and repair, institutional research support, computer programming support, and server & maintenance support for departmental and campus unit systems. Additional functions include instructional and consultation services for computer hardware and software, network infrastructure design, and training and information technology implementation services to assist faculty and staff in the use of software/hardware and new computing systems. (See attached for Functional Statements)

II. Year's goals, plans and accomplishments

A. Goals:
   1. Reorganize college IP addresses into appropriate subnets. (SP G1, O1; G1, O2; G2, O2)
   2. Modify Maximo work order system. (SP G1, O1; G2, O2) Fine-tune user interface to implement O & M and Media Center into Maximo. Develop preventative maintenance module listings for each department (Ongoing). (SP G1, O1; G2, O2)
   3. Hire temporary (casual) technician for functions # 5, 6, 9, & 11. (SP G2, 02)
   4. Decommission legacy DEC VAX equipment. (SP G2, O2)

B. Additional goals and objectives for this year:
   5. Complete wiring and installation of network infrastructure for Building Q. (SP G2, O2; G5, O2)

6. Upgrade Molokai, Hana, and Lanai computing infrastructure, including network connections, IP addresses, wireless coverage, and new computers and peripherals. (SP G2, O2; SP G3, O1;
7. Establish Internet access to Molokai Farm. (SP G2, O2; SP G3, O1)
8. Upgrade network infrastructure, purchase and add new Cisco network switch. Once installed, the campus will see increased network traffic speed, and have a redundant/back-up switch in the event of a main switch failure (Ongoing). (SP G2, O2; G5, O2)
9. Install new wireless server and complete campus-wide wireless coverage plans. (SP G2, O2)
10. Develop updated MCC website to align with UHCC System template. (SP G1, O1; G2, O2)
11. Combine Computing, Media and Telecommunications into a single organizational unit headed by IT/Telecom administrator.
12. Reduce turn around time for work orders to match FY2005-2006 statistics (2.7 – 3.0) (SP G1, O1; G2, O2)

A. Accomplishments:
1. Reorganized college IP addresses into subnets.
2. Modified Maximo work order system. Fine-tune user interface to implement O & M and Media Center into Maximo. Develop preventative maintenance module listings for each department (Ongoing).
3. Hired temporary (casual) technician for functions # 5, 6, 9, & 11.
4. Began decommission of legacy DEC VAX equipment (Ongoing).

B. Additional goals and accomplishments for this year:
5. Completed wiring and installation of network infrastructure for Building Q.
6. Upgraded Molokai, Hana, and Lanai computing infrastructure, including network connections, IP addresses, wireless coverage, and new computers and peripherals. Added wireless coverage to Lahaina Education Center.
7. Established Internet access to Molokai Farm.
8. Upgraded network infrastructure, purchased and added new Cisco network switch. Campus network traffic saw an increase in speed and user support. Campus now has a redundant/back-up switch in the event of a main switch failure.
9. Installed new wireless server to assist towards completion of the campus-wide wireless coverage plan.

10. Completed website design to align with UHCC System template and uploaded to MCC web-server.
11. Continued initial steps integrating Computing, Media and Telecommunications into a single organizational unit headed by a technology administrator. Temporary IT/Media Center Coordinator continued in current position. Individual and combined Computing and Media Center meetings have been held to smooth eventual transition (Ongoing).
12. The average work-order turn-around time increased from 3.2 to 3.8 days.
13. Removed MCC Library computers infrastructure, including workstations and computing peripherals in preparation for Library remodeling project.
14. Configured and distributed 130 laptop computers to faculty and students in support of MCC/USDA Project Ohana grant.
15. Installed a dedicated switch for H.323 teleconference units located throughout the campus. This switch was put in place to ensure dedicated bandwidth for packet throughput.

III. Analysis of qualitative and quantitative data.

A. Qualitative Data. A survey was performed this year. Data is included in the table attached. Comments are included at the end of the table. Data reflects satisfactory performance in the following categories:
Quality of service: 78.4% satisfactory rate
Timely manner of service: 67.5% satisfactory rate
Staff courtesy: 89.3%
Work order system: 61.7% satisfactory rate
Support of existing hardware: 58.8% satisfactory rate
Support of existing software: 66.2% satisfactory rate
Campus system: (website, email, etc): 68.6% satisfactory rate
Staff training and assistance: 47.4% satisfactory rate
Improvement of services in the past year: 89% satisfactory rate

B. Quantitative Data.
1. The number (FTE) of technical staff increased with the addition of one 1.0 FTE. This occurred late in FY2007-2008. Work orders declined by approximately 15%. Work orders outstanding at the end of 2008 increased from 22 to 169. Categories C thru F show a marked increase; in particular D, E, and F. The average number of work orders completed per technical staff remained the same. There was a marked increase in the number of computers per technical staff.

2. Average work-order turn-around time increased from 3.2 days to 3.8 days. This increase in turn-around time may be affected by any number of reasons including unavailability of parts, consultation for customized services, additional goals and accomplishments met which are not included on the work order system (such as wiring and installation of network infrastructure for Building Q).

IV. Next year's goals, plans and objectives.

A. Goals:
   1. Reorganize college IP addresses into appropriate subnets (Ongoing). (SP G1, O1; G1, O2; G2, O2)
   2. Commence integration of VP6 standard for network IP Addresses
   3. Replace Maximo work order system with Maximus WebEX system. (SP G1, O1; G2, O2)
   4. Decommission legacy DEC VAX equipment. (SP G2, O2)

B. Additional goals and objectives for this year:
   5. Commence planning and preparation to upgrade campus wireless network encryption standards from WEP to WAP for added network security. (SP G2, O2)
   6. Install, configure, and place into service media server for video streaming (SP G2, O2; SP G3, O1;
   7. Complete Library upgrade – new Ethernet cabling, upgrade wireless access. (SP G2, O2; G5, O2)
   8. Install additional wireless AP units toward goal of ubiquitous wireless network. (SP G2, O2; G5, O2)
   9. Begin implementation from standard telephone network to Voice Over Internet Protocol (VOIP) standard.
   10. Combine Computing, Media and Telecommunications into a single organizational unit headed by IT/Telecom administrator.
   11. Reduce turn around time for work orders to FY2005-2006 statistics (2.7 – 3.0 days) (SP G1, O1; G2, O2)

V. Resource needs and priorities.

A. Needs:
   1. Increase in position count. A 0.5 FTE IT Specialist for evening and weekend frontline support should be considered. This position would assist students and faculty with user-name and

password access issues, wireless access, personal laptop configuration, and assisting faculty and staff with trouble-shooting and IT support for classroom instruction. As noted in attached table, the need for faculty, student, and staff software and user support increased by 40% in FY 07/08 (F). If this position were added, evening computer support would promote user satisfaction, increase evening campus infrastructure support, and assist with the increase in demand for user services. (SP G2, O2)

2. Increase position count. An additional 1.0 FTE IT Specialist is needed to assist in building security procedures, tables, inventory, and preventative maintenance databases for the newly adopted UHCC work order program *Maximus.* Currently, one IT Specialist oversees the Maximo work order system. Additional support is needed to train staff on the new database program while transitioning from *Maximo* to *Maximus*.
3. Increase in position count. A 0.5 FTE IT Specialist should be added due to an increase in network use. This increase includes a growing demand for online instruction, the final phase of the wireless campus network infrastructure, an anticipated growth in network traffic, and additional hardware installation and support to maintain the existing IP network infrastructure and peripherals. Switches, workstations, laptops, servers and other IP addressable tools has increased on campus by approximately 40% in FY 2007-2008 (H, D). New faculty have been added, programs have expanded, a new four-year Electronics Program is anticipated for introduction to the college, and the newly renovated MCC Library will be brought on line. In addition, the new MCC Science Building is planned to break ground in Fall 2009. These recent and upcoming campus upgrades have significantly impacted Computing Services operations. In addition, new technologies used for learning, including streaming media and Web 2.0 modalities, and additional hardware and software upgrades for online course instruction will place additional demands upon Computing Services. This 0.5 FTE IT Specialist position would allow for current and anticipated growth of the colleges' computing infrastructure. Work orders left unfinished at the end of the year would decrease substantially and the anticipated increase in workload would be better supported.
4. Transition temporary positions into permanent count positions. Of the current Computing Services staff, three of the eight positions are classified as temporary. The three positions include (a) a network/programming specialist, (b) a hardware support specialist and (c) a web programmer. The temporary classifications may be necessary to hire the necessary staff,

however this leaves the college's computing infrastructure in a tenuous position. If even one of these temporary positions were eliminated, Computing Services planning, support, and daily operations would be adversely affected. (SP G2, O2)

5. Equipment requirements.
    - A new central switch to increase network data throughput was installed in FY 2007-2008. New equipment to track network data should be considered for purchase. This would allow network bit use to be tracked and integrated into quantifiable data. This data can then be used to better assess actual network growth and demand.
    - New laptops and miscellaneous testing support equipment for computing staff would improve network reliability, trouble-shooting, and day-to-day operations.
    - Thirty replacement computer workstations are required in Kupa'a 203 for classroom instruction. There is a need to upgrade classroom 209 in the Ka Lama building to include 20 computer workstations for classroom instruction. An additional 25 computers are also required for new faculty.
    - The department recommends the purchase of a replacement server for the soon to be decommissioned DEC VAX server. This will allow for an increase in storage capacity for network operations and asset management.
    - A software upgrade is required to improve the design and management of the online campus calendar system.
    - Finally, because additional computing equipment and servers have been added to the main server room, it is highly recommended a package air conditioning system be added within the facility. The current cooling system is operating at maximum capacity and can no longer keep the server room within optimum operating temperatures. This unit is required to ensure safe operating temperatures of delicate computer equipment now in service, as well as additional cooling capacity for the foreseen increase of computer and auxiliary equipment in the server room.

Functional Statements

1. Implement the Computing Plan of Maui Community College.
2. Facilitate, locally, plans of the University of Hawaii Information Technology Services and IT Offices of the other colleges in the UH system.
3. Assess college computing needs.
4. Obtain funding for software, equipment and program support through budget requests and grant proposals.
5. Acquire and install software and equipment necessary for college computing infrastructure, including network and central servers for file service and printing.
6. Configure and maintain/repair network and server equipment/software that is required for infrastructure, including wireless network and college web site.
7. Provide programming services to create unique systems or tailor purchased systems for campus-wide or system-wide use.
8. Provide advice and assistance in purchasing departmental and campus unit software, computers and peripherals.
9. Install and configure departmental, campus and outreach unit software and hardware.
10. Provide programming and server support/maintenance for departmental or campus-unit systems, such as Compass, Skills Bank, and student digital media file access.
11. Maintain and repair departmental, campus and unit computing equipment and peripherals.
12. Inform and train faculty and staff in the use of software/hardware and new systems.

Quantitative Data:

	COMPUTING CENTER	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08
A	# of Workorders completed.[1]	1229	1252	1293	1798	1415
B	# of Workorders outstanding at year end.	13	12	12	22	169
C	# of Requested data uploads/downloads completed.	247	253	252	272	330
D	# of Computer installations completed.	227	48	106	153	293
E	# of Other hardware installations completed.	191	56	61	65	189
F	# of Software installations for faculty, staff, asst.	389	439	167	251	482
G	# of Software installations for classrooms/labs	1333	1072	1742	3493	1829
H	# of Computers on campus at end of the year.	1096	1167	1196	1248	1306
I	Computing Center technical staff FTE.[2]	4.8	4.5	4.6	6.3	5.0
J	# of Workorders completed per technical staff	256.0	278.2	281.1	285.4	283.0
K	# of Computers on campus per technical staff	228.3	259.3	260.0	189.1	261.2
L	Average days to complete a workorder	3.9	3	2.7	3.2	3.8
M	# of Student UH account problems resolved.	252	328	311	201	192
N	Computing Center non-technical staff FTE.	0.5	0.5	0.5	0.625	0
O	Comp Ctr Budget[3]	$248,431	$248,431	$258,972	$492,800	$576,980
P	% Comp Ctr Budget/Overall College Budget	0.80%	1.15%	1.00%	1.00%	1.82%

[1]Workorders account for approximately 35% of Computing Services work and include those of Webmaster starting FY07.

[2]Technical staff includes Webmaster starting FY07 & Computing Coordinator prior to 10/01/06; FY2006-07 includes Computing Coordinator before retirement and part time 1/01-6/30/07, and technician overtime.

[3]Beginning FY07 the budget includes Computing Coordinator's pay and Infrastructure Upgrade funds.

Computing Services Survey Results:

Computing Services provides high quality service

28.4% completely agree
50.0% agree
11.7% disagree
0.0% strongly disagree
9.9% no opinion
(102 respondents)

Computing Services provides services in a timely manner

18.5% completely agree
49.0% agree
18.2% disagree
0.4% strongly disagree
13.9% no opinion
(102 respondents)

Staff is courteous and helpful

45.0% completely agree
44.3.% agree
0.0% disagree
0.0% strongly disagree
10.7% no opinion
(102 respondents)

Computing Services work order system is adequate

14.7% completely agree
47.0% agree
22.5% disagree
2.3% strongly disagrees
13.5% no opinion
(102 respondents)

Support of existing hardware is adequate

23.5% completely agree
35.3% agree
14.0% disagree
1.9% strongly disagree
22.6% no opinion
(102 respondents)

Support of existing software is adequate

47.3% completely agree
18.9% agree
11.5% disagree
3.4% strongly disagree
18.9% no opinion
(95 respondents)

Campus systems (website/calendar/scheduler/email, etc.) are adequate
14.7% completely agree
53.9% agree
15.6% disagree
3.2% strongly disagrees
12.6% no opinion
(102 respondents)

Training provided by the Computing Services has been adequate

11.7% completely agree
35.7% agree
20.5% disagree
2.9% strongly disagrees
29.2% no opinion
(102 respondents)

Have the computing services improved or declined over the past year?

56.8% stayed the same
32.2% improved
8.6% declined
2.4% no opinion
(102 respondents)

Comments:

Arthur and the new guys are great to work with. Kris is always so helpful.

Would like to have wireless access at MCC Lahaina facility.

Computing needs more staff to handle all the challenges across campus.

Mel and her Comp Services team very efficient. They do miracles with our computers.

Keep up the good work and replace all old out dated computers.

Last time I checked the work order system wasn't working.

More training and more preventive servicing of computers and equipment in classrooms on a weekly basis.

Melody makes everything okay.

Staff is always helpful and cheerful.

Under staffed.

I think they are very understaffed - the staff they have are incredible and respond in as timely a fashion as they can.

We desperately need more tech people. Also, updated software to reflect the outside world. Computers need to be updated. No one should be using a computer over three years old. Tech support should also include data people who can assist faculty and staff to receive the data needed.

Service from Computing Services has always been good, and is getting better.

Staff members are very responsive and knowledgeable.

Having additional techs is an improvement.

Lack of staff and funding make it impossible for computing to do its job.

New email is less convenient than old system.

Need to offer more training on Maximo and tips to improve our skills using our computers.

Given the huge demands of computer-related requests, they continue to provide great customer service and extend their support as best as they can. Mahalo!

They need more help. The loss of Eddie Domingo was huge and not filling behind Steve George hurts.

Have little or no contact with IT.

Excellent service above and beyond what might be expected with so many needs.

This is an excellent, excellent staff that seems to be spread way too thin.

Thank you for working hard with not enough staff to serve a growing campus staff and maintaining equipment that oftentimes is a challenge because of its age.