

Desktop Network Services

Annual Report 1996-1997

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FROM: Wil Frost, Head, Desktop Network Services

SUBJECT: Annual Report of the Desktop Network Services Department

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Introduction

The Desktop Network Services Department began its first full fiscal year of operation on July 1, 1996. The department was formed in January, 1996, when staff were drawn from the Systems Department and the Public Services Division to become a team focused on supporting the networking and desktop computing needs of library users and staff. The department performs its work within the framework of the mission and strategic plan of the Library Networks and Systems Division.

Mission

The mission of the Library Networks and Systems (LNS) Division is to take a leadership role in planning and implementing information technology that facilitates the realization of University of **Hawai'i** library service goals. The work of the Division primarily supports University of **Hawai'i** at **Manōa** students, faculty and staff in their learning, teaching, research and service activities, and also supports library services and database access throughout the UH System.

The LNS Division performs four major functions. (1) It solves problems related to information systems by helping to identify library user and staff needs; matching needs to available technology; proposing alternative solutions, including original programming; implementing solutions; and coordinating evaluation. (2) It installs and maintains UH **Manōa** Library computer equipment and software, including the UHCARL mainframe system. (3) It designs and manages the UH **Manōa** Library's internal data communications networks and external connectivity. (4) It helps University library staff understand information technology and develop skills to use it effectively.

Strategic Goals

- A. Maintain the stability of UH **Manöa** Library server and desktop computers and networks.
- B. Provide responsive support to library staff using equipment and software.
- C. Expand, optimize and upgrade the library network infrastructure.
- D. Maintain and enhance UHCARL services, such as access to resources, user-initiated features and processing applications. (This is primarily a Systems Department goal.)
- E. Expand and upgrade access to electronic resources.
- F. Develop public computing and Internet services.
- G. Increase the efficiency of library processing and fiscal operations through advances in automation.
- H. Promote faculty, staff and student familiarity with information technology.
- I. Advocate a steady, annual funding base for equipment replacement and technological initiatives.

Resources

Staff. The department functioned with three (3) FTE permanent, general fund staff - Librarian IV (Head), ETII (Library Network Manager), ETI (Technical Support Manager) and approximately 2.5 FTE general and special fund student help.

Note: the Head of the department was appointed Interim Head of the Library Networks and Systems Division on August 12, 1996. This appointment resulted in roughly 40% of the Head's time being devoted to non-DNS activities.

Budget. The department's operating budget was \$43,388 for desktop computing and network support (maintenance, repair, hardware, software, supplies). This was higher than the previous year, primarily in recognition of the need to upgrade older desktop computers.

Progress Toward Current Goals

DNS responded to 769 staff requests to troubleshoot network, equipment and software problems; performed 368 network, equipment and software installations and equipment moves; performed 115 maintenance operations (primarily weekly or monthly routines) and researched, ordered and/or installed more than 60 different operating system, application and utility software programs. The total number of requests of all types received by all DNS staff is not recorded.

The top ten projects of the department this year were)

1. Wrote an Invitation for Bid (IFB) for a Library ATM backbone network. This will allow the Library to purchase equipment to improve its networking infrastructure and support new networked services and increasing demand.
2. Upgraded Science Technology CD-ROM LAN for Internet and local/remote CD-ROM access with a Web interface. This has increased access to electronic resources and simplified learning by users.
3. Upgraded the Collection Services LAN and provided new office productivity software for the Acquisitions, Cataloging and Serials Departments.

4. Acquired 39 new and gift desktop computers for public and staff use. This has improved public and staff access to computing resources.
 5. Implemented IAC remote patron authentication. This has made it possible to provide restricted access to the Web version of the Expanded Academic ASAP database from locations outside the library buildings.
 6. Wrote code for Collection Services to monitor OCLC and RLIN download inspects. This has increased staff efficiency.
 7. Migrated 16 Wyse 60 terminals from Gandalf Starmaster to a terminal server. This has been an important step in being able to remove the Gandalf Starmaster and simplify library network operations.
 8. Set up the Library's first Windows NT server. This experiment enabled DNS to test serving applications, file sharing and printing services via NT and will ultimately lead to more efficient management of desktop computing resources.
 9. Surveyed staff needs for and ordered 80 new ergonomic computer tables for staff in Hamilton Library and Sinclair Library.
 10. Wrote Library Networks and Systems Division strategic plan.
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The following projects and activities were performed in support of the strategic goals.

1. Maintain the stability of UH **Manōa** Library server and desktop computers and networks
2. Worked with CARL on moving External Services Program UnCover scanned article transmission from CARL Expand Line to Internet to correct dramatic slowdown in Expand Line response time.
3. Upgraded the first floor CD LAN server and workstations; modified network connection.
4. Replaced PowerPages LAN CD-ROM jukeboxes.
5. Surveyed staff needs for new and replacement barcode readers; ordered and installed readers for several departments.
6. Met with vendor on disaster recovery.
7. Upgraded staff and public PC operating systems.
8. Upgraded gift 386 PCs to low end 486 PCs for public and staff use.
9. Installed security software on public PCs and virus protection software on public and staff PCs.
10. Upgraded memory on many PCs to accommodate needs of newer software.
11. Upgraded hard drive capacity on a number of PCs to accommodate increasing space requirements of newer software.
12. Successfully experimented with using a server to serve applications to staff workstations (DNS server) and to share files among staff (Collection Services server) for the purpose of maximizing DNS support capacity as the Library computing environment becomes more complex.
13. Successfully handled several power outages.
14. Performed routine back ups of selected server and desktop hard drives.
15. Performed routine preventive maintenance of selected equipment.
16. Provide responsive support to library staff using equipment and software.
17. Responded quickly and courteously to approximately 800 staff requests for troubleshooting, purchases, installations, equipment moves and other services.
18. Wrote a software program for Collection Services to monitor OCLC and RLIN download inspects.
19. Surveyed staff needs for ergonomic computer tables and submitted requisitions to order; coordinated receipt and placement of tables; moved computers to new table locations.
20. Facilitated assessment of IAC Expanded Academic ASAP, EbscoHost, ProQuest Direct and SwetsNet electronic resource products by installing needed software and setting up equipment.

21. Consulted with staff regarding data jacks and computers; providing access to the Charlot Posada Collection indexing and images on the Web; revising Serials Department Web pages; using Microsoft PowerPoint software; using Adobe PhotoShop software; moving Science Technology Web files between Unix accounts; converted External Services Program MS Works files for use in Filemaker Pro; and other topics.
22. Conducted a survey of Hamilton Library classroom users at end of Fall Semester, 1996 to find areas for improvement.
23. Replaced instructional keyboard labels on Wyse terminals to assist the public in using PAC.
24. Expand, optimize and upgrade the library network infrastructure.
25. Met with Bay Networks, Cisco Systems, Fore and 3Com and arranged a meeting of ITS and Library staff in preparation for writing an Invitation for Bid (IFB) for a Library ATM backbone network; submitted the bid document via Fiscal to PPMO.
26. Installed a Sun workstation for the Library Network Manager to monitor network operations.
27. Installed an Ethernet Switch on loan from Cisco Systems to the library network; connected the Admin server, Collection Services server, Floors 3, 4 and 5 and Room 111D to the switch to determine the effect on network communications; removed switch at end of experiment.
28. Wired 66 blocks in Room 8 to move selected Wyse terminals from the Gandalf Starmaster to terminal servers in order to streamline the Library network.
29. Researched fiber cabling options and measured fiber lengths needed to upgrade the Library network cable infrastructure.
30. Set up a Windows NT server as an experiment in preparation for using NT to serve applications, allow file sharing and provide printing services to desktop computers.
31. Maintain and enhance UHCARL services, such as access to resources, user-initiated features and processing applications.
32. Negotiated 1996 CARL contract modifications (numerous meetings and contract correspondence).
33. Planned and coordinated 1996 UHCARL Network Libraries conference, set up equipment and provided technical support during meetings; made presentations to the conference.
34. Met with CARL staff during annual site visit and UHCARL conference visit.
35. Reviewed CARLWeb product and worked with Systems and CARL to create UHCARLWeb interface: selected features, edited screen wording, advised on graphics, tested for bugs
36. Worked with CARL to install CARL Gateway Server.
37. Coordinated attendance of UH Manoa Library staff at 1996 CARL User Group Meeting.
38. Facilitated UnCover SUMO project by serving on planning committee, editing screen wording and working with UnCover staff on site.
39. Expand and upgrade access to electronic resources.
40. Consulted with Science Technology to change their CD-ROM LAN to access local CDs, Kapiolani Community College CDs and Internet resources using a single Web interface; set up experiment with WinSPIRS software in Hamilton Room 1 to test search interface and response time; connected LAN equipment to library network; upgraded public access equipment; reconfigured server and workstation equipment; installed a public printer.
41. Installed public PCs for Internet access on the first and third floors.
42. Managed Library classrooms: updated instructions for Macs and projectors in classrooms; added additional Macintosh to Hamilton Room 1 (moved from Room 401 where it was not being used); installed additional memory, DOS cards, Windows operating system, CARLTERM, OCLC Passport and Internet application software for Windows in Macintoshes in Room 1 to support student and staff training.
43. Worked with Information Access Corporation (IAC) to accomplish remote patron validation for the Expanded Academic ASAP Web database, so that it can be accessed from on campus and remote locations.
44. Managed Library Web pages: updated What's New? section, library hours, staff directory, job

- openings and news on a regular basis; added numerous subject links, library policies and documents.
45. Requested and supervised SLIS practicum intern working on a project to enhance access to Internet resources by subject via the Library Web pages.
 46. Performed regular updates of CD-ROM discs for BHSD CD LAN; PowerPages Business LAN; Science Technology CD LAN; and Asia Collection, BHSD, Government Documents and Special Collections standalone workstations; installed most superseded discs in Library classrooms.
 47. Established committee to determine how to provide access to the Miyamoto Collection via the Web.
 48. Develop public computing and Internet services.
 49. Ordered and/or installed 6 public PCs,
 50. Installed two additional public Wyse terminals on the second floor of Hamilton Library.
 51. Obtained used desktop computers from campus departments, upgrading or repairing them as necessary.
 52. Facilitated Medianet project by ordering and/or installing equipment not included in CARL contract, such as staff workstations, uniform power supply (UPS) and printers.
 53. Installed DOS cards in Hamilton Room 1 Macintoshes to allow use of Windows software in public and staff training sessions.
 54. Worked with Building Planning Librarian and Science Technology to reconfigure the public Wyse terminal and PC equipment in front of the Science Technology Desk to improve service to users.
 55. Participated in Hamilton Library Phase III building expansion planning, including general and telecom meetings.
 56. Increase the efficiency of library processing and fiscal operations through advances in automation.
 57. Surveyed need for additional PCs for Library staff; worked with Division Heads to set priorities; determined appropriate equipment and software required and submitted requisitions; installed equipment and software when received.
 58. Upgraded the Collection Services LAN file server with additional memory and drives; installed Microsoft Office, FoxPro, Internet and utility software to support staff requirements.
 59. Researched, ordered and/or installed software for staff PCs, including: Adobe Acrobat Reader, Adobe Illustrator, Adobe PageMaker, Adobe Photoshop, AppMeter (CS LAN), Ariel, At Ease, BiblioLinkII, Campaign Associates, CARLTERM, ClarisDraw, Claris Filemaker Pro, ClarisWorks, DialogLink, Eudora Pro, Fetch, FMIS, Fundraiser, Hanme Hangul, Hawaiian fonts, Ikiosk, Korean Language Kit for Macintosh, LanCD, MacOS, Meeting Maker, Microsoft Access, Microsoft Excel and Internet Assistant, Microsoft FoxPro, Microsoft Office, Microsoft PowerPoint, Microsoft Word and Internet Assistant, NCSA Telnet, Netscape Navigator, NetShield, Norton Utilities, OCLC Passport, Outside View, ParaWin Cyrillic, People Scheduler, ProCite, QVT Net, RLIN Terminal, Romax, Russian fonts, SecureGroup, StuffIt TwinBridge Chinese Partner, TwinBridge Japanese Partner, UMI ProQuest Direct (trial), UnionWay (CJK), VirusScan, VShield, Windows 3.1, Windows 95, Windows NT, Windows NT Workstation, WinSPIRS, WS-FTP and others.
 60. Consulted with BHSD to plan the purchase of equipment and software to support a Windows NT intranet server and staff workstations for the department.
 61. Located and installed a temporary PC with modem and printer in the Old Snack Bar (and later Acquisitions) in support of rush processing of Matsunaga Collection monographs.
 62. Promote faculty, staff and student familiarity with information technology.
 63. Taught Internet Training Phase 4 content to Library staff (two sessions for Library Administration and one session for Systems Department; wrote portion of training covering Adobe Acrobat Reader and made it accessible via the Web (W. Frost).
 64. Taught one meeting of LIS 679, Library Systems Operation and Interpretation, for Professor Larry Osborne (S. Ledward).
 65. Spoke to 10 Pacific Islands students in a Sea Grant program regarding how to search the Web for information (W. Frost).
 66. Spoke to a lifelong learning program class conducted by University Librarian on the topic of selecting

- a desktop computer (W. Frost).
67. Assisted University Librarian by giving a demonstration of Library Web pages to the Library Associates Board (W. Frost).
 68. Taught orientation session covering Microsoft Office for Collection Services staff (W. Frost).
 69. Arranged demonstration by Bay Networks, Inc. of multimedia and video conferencing equipment and software (S. Ledward).
 70. Attended a two-day Windows NT seminar (R. Takemoto).
 71. Attended Microsoft/Tandem seminar on fault tolerant software (S. Ledward).
 72. Attended a half-day Apple Computer update seminar (W. Frost).
 73. Attended Summer 1996 ALA conference in San Francisco (W. Frost).
 74. Attended 1996 CARL User Group meeting in Chicago (W. Frost).
 75. Attended 1996 LITA conference in Pittsburgh (W. Frost).
 76. Attended ITS seminars on managing a listserv, Web-based instructional software and Claris HomePage Web authoring software (W. Frost).
 77. Attended demonstrations by IAC, Ebsco, Swets and UMI sales representatives (W. Frost, S. Ledward).
 78. Advocate a steady, annual funding base for equipment replacement and technological initiatives.
 79. Tested a debit card printing solution on standalone CD-ROM computers.
 80. Other activities, projects, accomplishments, or changes
 81. Interviewed, hired and supervised approximately 2.5 FTE student help (R. Takemoto).
 82. Met with union and personnel officials regarding appeal of position classification (S. Ledward).
 83. Wrote Library Networks and Systems Division strategic plan (W. Frost).
 84. Became interim head of LNS on August 12, 1996 (W. Frost).
 85. Participated on search committee for Computer Specialist IV position in Systems Department (W. Frost, S. Ledward)
 86. Provided one-hour orientation of new Library staff to DNS in November, 1996, and May, 1997 (W. Frost).
 87. Prepared report in response to SR132, Hawaii State Legislature (W. Frost, S. Ledward).
 88. Served as backup at CIS Desk and Telephone Reference (W. Frost).

Goals for 1997/98

The goals of the department remain the same as the Library Networks and Systems Division strategic goals. Major emphases will be to:

- Purchase and install an upgrade to the Library network infrastructure including ATM and ethernet switching devices and fiber optic cable;
 - Replace public and staff dumb terminals with equipment capable of running graphical user interfaces.
 - Select and install a public PC debit printing solution for at least one floor of Hamilton Library;
 - Expand Windows NT services (printing, application serving, departmental intranets);
 - Develop Library Web services, for example CARLWeb and UnCover Customized Gateway Web;
 - Regain a full-time head of Desktop Network Services and additional staff so that these goals can be realized.
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Statistics

Operations

Troubleshooting requests:	769
Hardware and software installations:	368
Maintenance operations:	115
Data jack requests:	18
Software titles installed (approx.):	60

Major Hardware

New and gift computers added:	39
CPU upgrades:	8
Printers added:	6
Memory upgrades:	28

As of June 30, 1997, the Library had)

Public Wyse terminals:	84
Public desktop computers:	78
Staff Wyse terminals:	188
Staff desktop computers:	154
Active library network connections:	304