DNS Department Annual Report for FY2013-2014

The mission of Desktop Network Services (DNS) unit of the Library Information Technology department is to plan, design, develop, coordinate, implement, operate, maintain and upgrade information technology services, systems and solutions which enable the Library to support student academic success, faculty knowledge creation, research and classroom instruction.

DNS serves the staff of the University of Hawai'i at Manoa Library by maintaining the Library networks, networking/datacomm equipment, print and file servers and all desktop computing resources. Librarian and APT staff in DNS provide support and services, training, development and research for hardware, software, network and server systems. The unit coordinates digitizing support and consultation, manages the Library's electronic resource proxy server, web servers, Institutional Repository systems, maintains the general library web site pages and assists departments who maintain their web pages. The department collaborates and coordinates with ITS to support wireless service and other telecomm related systems.

DNS staff is responsible for library IT services and support systems used:
- to provide access to electronic resources and digital collections
- in classrooms, teleconference/video conference and presentation events
- for content creation and updating of library web pages and the intranet
- to maintain network security and connectivity, building surveillance cameras
- to support public computing, debit and wireless printing
- to support staff computing, network and stand alone printing and scanning
- for performing backups of online data, managing offsite storage of backups

DNS is committed to providing reliable, timely, secure, fast, flexible information technology (IT) solutions and services by exercising careful and prudent stewardship of available financial, staff and technology resources; acquiring and deploying the most cost effective and sustainable technology in the most efficient manner and finding solutions that best fit defined needs which take advantage of readily available technology and/or open-source/free options.

ACCOMPLISHMENTS/PROJECTS

Administrative/Department wide:
- Department was short-staffed due to Beth Tillinghast being on sabbatical from July 1, 2013 through December 31, 2013.
- Handled request to fill, personnel procedures and activities of screening committee to hire a temporary Digital Resources Librarian (Sara Lee started May 1, 2014), position number 84097T to fill in for Beth Tillinghast who accepted an interim appointment as Assistant University Librarian for Library Information Technology effective January 1, 2014.
- Handled resignation (of Jerrold Shiroma, effective March 14, 2014) and subsequent request to fill, personnel procedures and activities of screening committee to hire a new temporary Academic Support Educational Specialist for Content Management System/Institutional Repository (CMS/IR) (Jennifer Beamer started August 1, 2014), position number 778216T.
- Handled request to fill and other personnel procedures to hire a replacement APT IT Specialist for Network Support, position number 81894, upon learning that Tom Ishimitsu was going to retire effective August 31, 2014. The position was advertised with a closing date of July 16, 2014 and the hiring freeze was announced July 15, 2014. As of September 15, 2014 the position remains unfilled.
- After resignation of Claire Schultz, redescribed her position to be a temporary half-time APT position for Sinclair Library technical support, position number 79407T, and requested permission to advertise in June 2014 but further progress halted due to hiring freeze.
• Coordinated planning and purchasing of equipment, software and maintenance using $75,999 of regular library funds and $49,149 of special funds
• Created APT annual expectations, performed annual reviews
• Handled administrative aspects of the NDNP grant using Kuali MyGrant system. The grant completion date was August 2014 but received a no-cost extension through December 2014.
• Department Head gave a presentation "Current technologies impact on functions and activities of the library" at the XI International Conference on University Libraries in Mexico City, November 2013
• Wing Leung served on the University of Hawaii committee for Occam's Reader (http://occamsreader.org/) - a software program for interlibrary loan of electronic books developed in collaboration with Texas Tech University and the Greater Western Library Alliance (GWLA).

Computing hardware and software support:
For detailed information see Web Help Desk (WHD) statistics on the intranet. The department received more Web Help Desk requests this year (670) than in each of the last 2 years. Many additional requests were sent via email or made in person or by phone without being recorded in the WHD. At least 239 messages concerning quotes or site licenses were also handled.

A major project that took most of the year involved upgrading PC RAM (or replacing the equipment when possible) on all library desktop computers for both staff and public in order to upgrade from the Windows XP operating system to Windows 7. Of the nearly 400 PCs running Windows XP at the start of the fiscal year, there remain only 15 still to be upgraded. Coordination of the component upgrades, equipment swaps, purchase of new hardware when possible and managing the subsequent application software upgrades and configuration issues took an enormous amount of support time and effort especially from Wayne Agunat and the DNS "micro student" assistants.

Computer/Server Inventory as of July 2014:
For detailed information see https://libstaff.manoa.hawaii.edu/groups/info-tech-div/dns/annual-reports/reports-for-fy2013-2014/InventoryForAnnualReport.xls on the intranet.

DNS continues to support over 490 desktop and laptop computers (PCs and Macs) of which 175 are located in public or classroom areas; the rest are used by staff and student employees. DNS supports approximately 45 servers and over 320 other pieces of technology (barcode readers, scanners, printers, projectors). The number of desktop computers remained stable during FY2013-14 but the number of servers (most are virtual) increased slightly.

Servers:
• Implemented archivesspace site for archives
• Bartered server goods for scanning services with Southeast Asian Archaeology/Luce Foundation funded project.
• Continued consolidating servers with virtualization when possible and deployed new hardware to support digitization.
• Implemented load balanced failover network teams on select servers and the backup system to improve backup performance.
• Emergency upgrade of the ILLiad servers after catastrophic hardware failure of the nearly decade old system
• Implemented Cacti MAC address tracking for Hamilton and Sinclair Libraries (with Tom)
• ILLiad 8.4 upgrade
• Migrated functions from Sinclair Library dying Xserve equipment (over 10 years old) including the student scheduling system (OSA), E-reserves PDFs and streaming video.
Network:
To improve access to electronic resources and streaming media, both within and without the Library, telecom switches were upgraded, as funds allowed. A large number of end-of-life Cisco switches were replaced with new, lower cost HP switches. Coordinated with ITS to carry out telecomm room changes and installs for the campus change over to a Voice-over-IP (VOIP) phone system. Coordinated with ITS during upgrades and installs of additional wireless access points in both Hamilton and Sinclair libraries. Replaced old firewall in Sinclair library with new one. Configured the old Fortigate firewall as a gateway to the Sinclair camera network to allow the Sinclair video server to get Windows and antivirus updates and also allow selected 51.x PCs to access the cameras. Reconfigured and installed network equipment in Sinclair basement after renovation.

Open Access/Scholarly Communication:
The Open Access Policy signed by the Chancellor in March 2012 was implemented beginning Fall 2012. The ScholarSpace repository will continue to play a crucial role in helping faculty meet the requirements of the OA policy. During her sabbatical Beth created a series of instruction modules for various functions in ScholarSpace. The modules and accompanying resources were to be deposited in ScholarSpace at the following address: http://scholarspace.manoa.hawaii.edu/handle/10125/14445

Institutional Repository (ScholarSpace, eVols, UH System):
Participation from UH departments and in-house digitization projects was steady and submission of material abundant. Detailed statistics are available on the intranet in the DNS annual report folder and ScholarSpace and eVols Web Statistics folder.

Institutional Repository Programming/Development:
• Began preparations for DSpace upgrade from version 3.1 to 4.0
• Developed a site survey for repositories (still under development) and created and launched a "fund us" button (linking to UH Foundation) for ScholarSpace and eVols
• Prepared repositories for, then implemented CAS3 (Central Authentication Service, version 3) UH ITS implemented CAS3 in August 2012 and will retire all use of CAS2 at the end of 2014.
• VIREO
  Set up and customized VIREO ETD submission system http://etd.manoa.hawaii.edu
  Worked on and tested various customizations requested for our Vireo instance, including:
  - Proof of concept for having pre-loaded data (i.e. from grad division or UH login) populate fields in the form based on the logged in user.
  - Tested embargoes in VIREO and DSpace. Once ingested into DSpace, embargoes work as expected with metadata visible, but files behind a request form.
  - Tested the OCLC FAST API to get a user-friendly interface for entering subject headings; hooked up the API for auto-completing subjects. Needs testing and further changes.
  - Linked Vireo up to the UH Web login.
  - Made department, major, degree read-only; removed personal information fields, phone and addresses; locked down fields so students can't change the official data.
  - Worked on a way to sequence submissions based on the way we currently generate call numbers.
  - Add a copyright/patent section. Text TBD
  - Added a requirement to have "proof" of a reason for choosing an embargo

Library Web:
• Web page usage statistics are on the intranet here: https://libstaff.manoa.hawaii.edu/library-information/annual-reports/library-google-search-statistics/2013-2014-web-page-usage-statistics
• NDNP - usage statistics from Chronicling America have not been received. The last batch of the final phase was processed June 12, 2014 and a final catch up batch was received at Library of Congress in
July. The eVols copies of NDNP newspapers (PDFs by issue) had 930,226 file downloads and 224,043 metadata views in FY2013-14.

**Digital Collections/E-resources:**
- Set up new Streetprint sites for Asia (Ilocandia) and Hawaiian (Taro, Warner Army Photos).
- Continued project documentation and development for Hawaiian Music site
- Consulted with Pacific Collection and representatives of the Oakland Museum of California about digitizing material from the Logs, diaries, and journals of John Rabe, 1850-1914. Project is expected to begin in Fall 2014.
- Consulted with University of Hawaii Press and various library department constituencies about digitizing backfile titles and future collaborations
- Scanned and loaded 7 annotated bibliographies on Japan to the Center for Japanese Studies community. At the email announcement of availability a Senior Lecturer in the History of Contemporary Japan, SOAS (School of Oriental and Asia/Africa Studies) at the University of London responded "Bravo! And, thank you."
- Carried out projects to enhance discoverability of material in Scholarspace and eVols including locating and updating PDFs lacking OCR text and adding abstracts to metadata for nearly 2,000 dissertations and theses.
- Carried out project to digitize and upload 49 additional titles for the eVols collection "Hawaiian Waters" which is harvested into the GWLA Western Waters Digital Library http://www.westernwaters.org/
- Created a UH-hosted blog to feature Digital Collection News http://blog.hawaii.edu/librarydigitalnews/

**Progress on GOALS set for FY2013-14 - The following goals were achieved**
- Continue to upgrade staff PCs, printers, central network equipment, wireless access points, etc. as budget allows.
- Continue to convert all PCs to Windows 7 before Microsoft ends support for Windows XP on April 8, 2014; convert all Intel Macs to at least OS 10.6 before ITS ends support for Mac OS 10.4.x and 10.5.x on December 31, 2013.
- Remove, replace, or convert to PC any still-used PowerPC Macintoshes before ITS ends support on December 31, 2013.
- Retire all PentiumD or older PCs (Windows XP) from staff locations
- Upgrade all necessary MS Office licenses 2003 or earlier with current version before Microsoft ends support April 2014
- Continue to maintain network security; research, test and implement methods to improve network efficiency.
- Continue to upgrade Hamilton backbone to 10Gb.
- Upgrade Sinclair outbound connection to 1Gb.
- Started the upgrade Hamilton staff Windows domain and shared server (aka Tech Services LAN) system (increased storage).
GOALS FOR 2014-2015
Given the staff shortages, changes, hiring freeze and budget restrictions this fiscal year the department does not have any major goals other than to continue to try and do our best to provide effective technology support to help the library achieve the mission and highest priority objectives. We will follow our practice of upgrading equipment and systems most in need (and/or upgrading the most heavily used and "handing down" the old equipment to replace the oldest systems). We will continue to look for ways to partner with other campus units and outside agencies to "barter" services for funding or equipment while expanding or enhancing our unique digital collections.

Of highest priority is filling the open APT for Network Support position and obtaining extensions of temporary positions. Another priority goal is finalizing the description for an IT support position for Sinclair Library (e.g. redescription of the "Claire position"), getting permission to fill it, and then filling the position in order to provide continuity of service and support to Sinclair library.

Carry-over goals from last year include:
• Explore how to best support UHM researchers and faculty with required submission of their research articles to ScholarSpace mandated by the 2012 UHM Open Access Policy.
• Keep the DSpace repository software up to date. Increase the size of our collections. Improve user experience/interface.
• Collaborate with UH System IT to explore how best to support UHM research.
• Roll out 1Gb to the desktop wired connectivity in Hamilton Library
• Complete the upgrade Hamilton staff Windows domain and shared server (aka Tech Services LAN) system - update OS from Windows server 2003 to server 2012.
• Participate in Digital Library Program and Social Media committees; continue to refine use of social media channels to promote digital collections