NAVAL POSTGRADUATE SCHOOL
ITACS
INFORMATION TECHNOLOGY AND COMMUNICATIONS SERVICES

Technology News **JANUARY 2009**

SUN MICROSYSTEMS

A new supercomputer system manufactured by Sun Microsystems has been installed on campus. The IT Task Force decided to name the machine "Hamming" in honor of former NPS Mathematician Dr. Richard Hamming. The system has been installed in Ingersoll Room 141, and testing of the machine's operating system and applications should be completed by the end of January. Policies for campus-wide use are currently being developed. The machine consists of over 1100 "cores" (processing units), over 100 terabytes of storage, and has a theoretical peak performance of 10.7 trillion floating point operations per second.

ITACS sponsored a ribbon-cutting ceremony for the Sun supercomputer on Friday, January 30, 2009. Guests included Mr. Bill Vass, President of Sun Microsystems Federal, as well as President Oliver, Provost Ferrari, NPS deans, chairs, and members of the IT Task Force.

NETWORK UPGRADE: NEXT STEPS

Installation of the redundant core, building main switches, Power Over Ethernet (POE) switches for wireless, a wireless management system, wireless access points and a new internal .MIL network have been completed. The new internal .MIL network is completely separated from the .EDU network. Users who need access to the .MIL network should use the .MIL reach-back through VPN. Documentation of the new network has been completed; La Mesa, Glasgow and Bullard Halls have also been completed.

The next steps for the upgrade are to finish replacing the edge switches in the building IDFs; installation of a new .MIL border routers, firewall, and CAC-enabled VPN concentrator appliance; and to work with Foundry to deploy approximately 58 more wireless points where needed, and to address wireless classroom issues.

Installation of IDF switches is occurring in stages: Dudley Knox Library, Halligan and Herrmann, Halls were completed in January. Root, Watkins, Ingersoll, and Spanagel Halls are scheduled for completion in February and March. The quarters' enclave and the cottages will undergo a major revamping, and parts of Public Works, such as the police and the warehouse, will get replacement IDFs. The work commenced on January 21, 2009 at 5:30 p.m., and will continue on Thursday evenings, working 4-5 closets at a time. Work will be done by Network Operations Center staff and volunteers and is expected to be completed by the end of March. The job will involve pulling out equipment, unpatching, installing the new equipment, repatching and uplinking.

The February schedule is as follows:

Root Hall – February 5, 2009
Watkins Hall – February 12, 2009
Ingersoll Hall – February 19, 2009
Spanagel Hall - February 26 & March 19, 2009

During the week of January 26, 2009, public works, police, the warehouse and gym will be completed; the enclave will be completed by the end of February.

The schedule will be posted on the Intranet, and will be sent to the administrative officers of the areas for further distribution. Any concerns that users may have during the scheduled periods of work can be addressed to Ms. Lonna Sherwin.

A ribbon-cutting ceremony recognizing the completion of the network upgrade will be held at the end of March.

APPLE LEARNING RESOURCE CENTER (LRC)

An Apple Learning Resource Center has been established in Spanagel Hall Room 341. Seventeen Mac Pros have been installed and imaged in the converted LRC, and classes will be held in the room during the quarter. A ribbon-cutting ceremony for the new LRC is tentatively scheduled for late February or early March, which Mr. Bud Tribble, Vice President of Apple, will be invited to attend. Over the next several months, tutorials will be conducted by ITACS and representatives from Apple. For more information, contact Dr. Jeff Haferman (jlhaferm@nps.edu).

GOLF COURSE ANNEX RIBBON-CUTTING

A ribbon-cutting ceremony was held at the golf course annex on Friday, January 16, 2009 to celebrate the completion of the installation of fiber between the academic labs and the MWR-related spaces, allowing operation of a 10-gigabit/sec. backbone, with 1-gigabit/sec. potential at every network connection, and an upgrade to the Monterey Peninsula Department of Defense Net to 10-gigabit/sec. Physics and the Mechanical and Astronautical departments house the jet propulsion lab, the laser lab, the modeling shop, a turbine lab and a high-speed wind tunnel at the site. The project was a collaboration involving ITACS, the Graduate School of Engineering and Applied Sciences, and the Office of Research.

UPS UPGRADE

On ITACS' third attempt, repair of the uninterruptible power supply (UPS) failover switch was successful. Solutions are being evaluated for a replacement for the 12 year-old system, and a recommendation will be made when the best option is determined.

INFOCON AND THUMB DRIVE UPDATES

NPS has been directed by NETWARCOM to go to Information Operations Condition 3, an elevated level requiring NPS to baseline its critical network infrastructure components and servers. This is currently an ITACS-level effort and any expected negative impact to NPS end-users will be communicated once known.

USB devices are still banned; however, the Technology Assistance Center has a kiosk to assist users in transferring data from banned media to the network. Both ITACS and the Department of the Navy are evaluating solutions to the portable media ban. Naval policy will determine the options that NPS can employ.

INMON TRAINING

On December 10th the Network Operation Center hosted an all-day InMon training seminar on the Traffic Sentinel product using sFlow, a leading, multi-vendor standard for monitoring high-speed switched and routed networks developed by InMon, and built into the Foundry network equipment. InMon's traffic management product, Traffic Sentinel, provides comprehensive traffic analysis, defending against threats to network availability and security, ensuring the delivery of critical voice, email, web, database and other essential services. Mr. Neil McKee, Chief Technical Officer for InMon, presented the training. Attending the seminar were network personnel from NPS, Defense Language Institute, Naval Research Lab Monterey, China Lake Naval Air Station, Point Mugu Naval Air Station, SPARWARS San Diego and Foundry Networks. To coincide with the completion of the network upgrade, the training is the first in a series of three which will be presented to Networks Operations staff by Foundry networks.

REPORT FROM THE TECHNOLOGY ASSISTANCE CENTER (TAC)

From January 1 through January 27, 2009, the Technology Assistance Center (TAC) received 2,009 requests for assistance, 1,629 of which were resolved by the Tier 1/Tier 2 areas, while the remaining 380 were escalated to groups outside of TAC for specialized assistance. This number represents a 22% increase in requests for assistance from the same period in December 2008.

Requests for assistance were categorized as follows:

- Phone: 970
- Walk-in: 568
- Email: 352
- Web: 119

The top five (5) categories of calls for this month were IT services, which includes items as Password Reset, Software Check-Out/Check-In, Locked Accounts, and General Questions; Software; Web Support; Hardware; and Networking.

This month, 96% of all calls were resolved within the Service Level Agreement (SLA). Those that were carried over are awaiting parts, pending information from the customers, etc.

TAC staff also helped resolve network outages, assisted 250 incoming students, and provided a briefing to GSBPP on January 9, 2009.