



NETWORK UPGRADE PROJECT OVERVIEW

It has been six years since the last upgrade to the NPS network. A committee was formed to review design needs and to evaluate proposals for the upgrade, which will increase bandwidth to 10gbs backbone and 1 gb for desktops; increase digital media, streaming technologies and high-performance capabilities; provide flexibility and reliability; ensure security and stability; increase active ports from 6,000 to 10,000; provide better monitoring and tools for making real-time decisions and isolate network failures; increase CENIC to 10 gbs; separate the MIL and ERN; increase monitoring capabilities; provide support for Power Over Ethernet (POE); and provide ease of management.

Currently, all fiber terminals are in Ingersoll, and both the MIL and ERN are on the same infrastructure. The new infrastructure will provide secure and redundant single mode optic fiber. All connections will go through Herrmann Hall and Ingersoll Hall, and redundant paths are available for all connections. The core network equipment is active monitoring for redundancy, which is helpful when IOS upgrades are needed. The configuration will be VRRP-E, which has high availability in the Core, and MSTP, which is used for redundancy. The CORE equipment is MLX-8, the Building Distribution Frame (CDF) equipment is MLX-4, the server farm equipment is SX800 and the edge switches are Fast Iron models FGS648, FLS648 and FLS624. The FLS series are small and will work well in places like Glasgow, where space is at a premium. A SX800 will be installed in the Bullard Hall closet because the space is very small. POE will be installed in every closet for lightweight access points for wireless, which will allow centralized management. A MIL presence will

remain on campus for mainframe access and MIL research projects.

The CORE was built and tested. Work is being done each week on one building, and on Saturday mornings the network is brought online. By the following Wednesday, the building routing will be moved to the new network. The goal is to have all buildings completed by mid-October. Ingersoll Hall, Root Hall, the Dudley Knox Library and Watkins Hall have already been completed, work in Herrmann Hall is underway, and Spanagel, Glasgow, and Bullard Halls will follow. Foundry will provide three on-campus courses and certification for personnel. INMON, web-based and accessible from a desktop, will be used to monitor the system and to enhance the security requirements to monitor the network. Solarwinds Orion will be used to provide drill down monitoring capability via the web. To improve research capabilities, the upgrade will provide 10gbs to the border router and firewall for NPS connection to CENIC

BUSINESS CASE ANALYSIS UPDATE

The six month business case analysis prepared by the Navy Higher Education Information Technology consortium (NHEITC) for NETWARCOM has been completed. All three CIOs representing the NHEITC — NPS, the U.S. Naval Academy and the Naval War College — have signed the document. The U.S. Naval Academy is drafting the letter that will accompany the document, which will be signed by all three Presidents representing the Consortium. A recap of the business case analysis is also being developed and will be presented to both the Graduate Education Review Board (GERB) and the NPS Board of Advisors when they convene in October.

IT STRATEGIC PLAN



The Cyberinfrastructure and Academic Technology sections of the IT Strategic Plan have been reviewed by the IT Task Force. The Administrative Systems section of the IT Strategic Plan will be reviewed at the next IT Task Force meeting.

REQUEST FOR 'WHO'S WHO' IT NOMINEES

As part of the campus' Centennial celebration, ITACS is developing an online section of NPS technology 'Who's Who' titled "NPS Notables", and is looking for people to be included on the list. ITACS would like to present a broad spectrum of individuals who have been instrumental in building and expanding technological innovation at NPS. Nominees can be staff, faculty or students, alumni, contractors or administrators or people outside the NPS community who have contributed to the NPS IT experience. Each nominee should have a relationship with NPS, either currently or in the past, and should have made a significant impact on information technology at NPS. Please send your nominee's name, e-mail address, relationship to NPS and his/her major contributions (i.e., the basis for your nomination) to Ms. Caroline Miller at cjmiller@nps.edu.

PARTNERSHIPS AND OUTREACH

At the Information Technology Task Force (ITTF) meeting in September, President Oliver stated that he appreciated the work of the ITTF, and has found through conversations with faculty, Navy leadership, and, as noted in the LMI report, that IT is considered a valuable and well-run service for faculty, staff and students. President Oliver also acknowledged the importance of the new IT Strategic Plan and thanked the ITTF for providing guidance to the

strategic planning process, and pledged his full support for the efforts of the group.

Dr. Cermak has been invited to serve a two-year term on the CENIC High-Performance Resource Committee.

CENIC has decided to hold its annual conference in Monterey in 2010.

A team from NPS attended the High-Performance Research Workshop at the CalIT2 facilities, which included demonstrations of virtualization, 4K projection, and the Opti-Cluster. Combining the CalIT2's large cluster set with NPS Sun computer will provide 61.2 teraflops of computing and visualization power, and allow division of the single 10 Gbps internet connection to be divided into multiple 10 Gbps links that support research, commodities and experimental needs. Efforts are underway to conduct regular meetings with CalIT2 to develop common funding for joint proposals on collaborative projects.

REPORT FROM THE TECHNOLOGY ASSISTANCE CENTER (TAC)

From September 1 through September 30, 2008, the Technology Assistance Center (TAC) received 2,037 requests for assistance, 1,572 of which were resolved by the Tier 1/Tier 2 areas. The remaining 465 requests for assistance were resolved by other groups within ITACS.

Requests for assistance were categorized as follows:

- Phone: 933
- Walk-in: 529
- Email: 466
- Web: 109

The top five (5) categories of calls for this month were IT services, which includes items as Password



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ITACS

INFORMATION TECHNOLOGY AND COMMUNICATIONS SERVICES

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Reset, Software Check-Out/Check-In, Locked Account, and General Questions; Software; Web Support; Hardware; and Networking.

This month, 93% 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.