

Network and Systems Annual Report 2007/2008

Wired Network

- Aging DSL in Towers, College Apartments, and Prairie Houses upgraded with new DSL equipment.
- A wireless Internet connection to NEIT was installed to complement our existing connection to the ICN. This increased our total Internet connectivity from 25Mbps to 40Mbps. As part of this process we came to the conclusion that internet connection load balancing appliances are insufficient to meet our needs. We were able to use the second connection to provide inbound redundancy, but not outbound redundancy. We will pursue full inbound and outbound redundancy using BGP routing during the summer of 2008.
- Servers on the 198.133.77.0/24 network were previously mixed together on the same vlan as some user ip addresses. Because of this problems caused by bad user traffic or network loops, could adversely affect access to these servers. To prevent this problem, we separated 198.133.77.0/24 onto its own servers-only vlan.

Wireless Network

- Coverage extended to include Campus House.

Network Security

- Network Access Control (NAC) ensures that only known computers that are running up-to-date antivirus software and patched operating systems are allowed to connect to the network. NAC has been used on ResNet for several years. NAC is currently being phased in for our entire network. During the 2006-2007 school year, we added NAC to the networks in Jensen, Koren, CFA, Campus House, and Loyalty.
- Modifications made to require that Norse Key passwords are changed once every 180 days.
- Began logging traffic going through our firewall to enable successful investigation of RIAA, MPAA, etc copyright violation complaints.

Telephone

- The battery backup for the telephone room was replaced.
- Telephone Switch software upgraded to most current version 5.0
- Call Pilot software upgraded to most current version 4.0
- Installed Desktop Messaging, and are piloting it with a few users as a trial for potentially offering it to more users.
- Implemented Connect-ED emergency notification system

Network/Server Infrastructure

- A dry fire suppression system has been installed in the Server Room in Main.

- Batteries on the UPS System in the server room in Main were replaced. An additional battery cabinet was also installed to provide additional capacity.
- An upgraded backbone switch was added to the Jensen Network.
- We have 2 VMWare servers up and running and have started creating virtual servers.
- Our SAN upgraded to include redundant controllers and redundant fibre channel fabric. This provides a higher level of fault tolerance than we had previously.
- Additional Space was added to the SAN.
- Monthly and yearly backup tapes are now being stored in a stored off site (from the server room) in a fireproof vault in Olin.

Services

- Work is well underway to migrate our users to Norse Mail. Once complete we will no longer host email services on our own servers.
 - Starting in March 2008, all new email accounts that are created are created as Norse Mail accounts
 - Conversion Progress as of June 3, 2008
 - Students: 100% Migrated
 - Faculty: 24% Migrated
 - Staff: 17% Migrated
 - Alumni: <1% Migrated
- Implemented Norse Key password expiry.
- Solved LDAP replication issues.
- Backup verification procedures have been put in place to verify that backup tapes contain the correct information.