Campus Network
3-8-05

Present: Tony Houdeck, David Belgarde, Chad Gratton, Zeke McKinney, Adam Ramberg, Jay Smith, John Wold, Barry Pederson, Roy Beard, Chad Bushy and Bonnie Jundt
Absent: Doug Osowski, Ron Braley, Kevin Danielson, Brent Logan, Renetta Johnson, Dale Ricke, Harold Bruce, Roy Beard, Corey Quirk, Corey Shock, Larry Fisk, Don Larson and Karl Martin

Minutes from February 8, 2005 – Approved
Doug Osowski asked about VPN and firewall services. The VPN for remote access is in production and the Helpdesk has the documentation. Firewall services are available using the firewall in the core of the network. There are 50 licenses, and more than 30 are still available. Kevin did the initial implementation and has been doing much of the planning, but others are getting involved and we are prepared to accommodate requests. Most of the work of putting an entire building behind the firewall is planning with the LAN administrator or the different departments within the building to assure access to services that need to be available from the outside. Anyone interested in moving ahead needs to contact the Helpdesk, Kevin or someone else in Network Services. We will do what we can to make progress with securing the networks.

The IT support group that Ron asked about at the last meeting is being formed and it will also be a sub-council to the UITC. Craig Cerkowniak worked with Jim Shaeffer on the membership. Kim Pastir has the list of names and will be contacting individuals.

We have a request to add Brandon Thorvilson and Adam Ramberg to the UND-Net Listserv.

FY05 Campus network infrastructure upgrades

- Cabling update – Larry provided
  Cabling is progressing with the infrastructure upgrade. Most current work is in Gamble, Aerospace buildings, Burtness and O'Kelly communications rooms with cable routing. A verification of current installation in all communications rooms is nearly complete. This will show us where trouble spots remain and where priority needs should be addressed.

  The SM fiber project is going VERY well. All but 4 pulls of fiber have been completed. The areas remaining have blockages of ice and will have to wait until spring to get the cable installed. Splicing has begun on the areas that are pulled. Manholes are being done that require parking on grass before the thaw. Building termination/splicing will be done last. All work should be complete by May/June.

- Equipment recommendation – Bonnie reporting for Kevin
  Equipment was purchased in January to continue with upgrades. At the end of the semester we will begin installation of Gigabit switches in the entrance of buildings and upgrade the links between communications rooms within those buildings.

Campus Electronic Integrated Communications Infrastructure Budget – The Next Three Years
We need to prioritize networking needs and update the documents that were taken forward two years ago to request infrastructure upgrade funds. Progress has been significant over the last two years with improving the cabling infrastructure. We need to continue moving toward a solid foundation to support the need of increased numbers of connections at higher speeds and the future convergence of voice, video and data applications on a single network infrastructure.

Wireless discussion
As we continue discussing networking needs for the future, it is inevitable that wireless will continue to be a major topic. Nearly all laptops and PDAs purchased today are coming with wireless built in so interest is likely to continue growing. Knowing where wireless coverage exists today and where there is interest is important. Nearly all laptops and PDAs purchased today are coming with wireless built in. John proposed developing a map of the campus that shows where wireless access is available. If we don’t have a campus plan, many areas of campus will begin, or continue, with their own installations.
Internet1 Sprint upgrade – Bonnie
We don’t have a confirmed date for the installation of the Sprint Internet1 link. The most current information from ITD has indicated that the latest turn over date from Sprint is early next week. Then the circuit needs to be tested and the cutover scheduled. The Bismarck cut-over was done and went well so the western half of the state.

ConnectND and Ancillary update
Equipment was purchased for network redundancy on the network that directly supports the systems for ConnectND, Housing, Parking and Facilities.

Zeke and Adam have been involved in the Parking and Housing Systems. Parking had some problems at UND on the go-live date, but issues have been resolved. The Housing system has gone very well. Both Housing and Parking are using VPN for administrative access. Many people have dedicated most of the last six months getting these systems implemented.

Network update (accomplishments, projects, issues, Q&A) – Each attendee
Tony
Networking at the library is going along as normal for this time of the school year. We will be updating to a new Novell server soon.

David
Video systems throughout the state will be updated. Pricing is good right now with both AVI and Qwest. If anyone wants to upgrade video systems, now is a good time from a pricing perspective. Registered video sites, with guaranteed quality-of-service, are being added almost on a weekly basis, but few of those are on Higher Education campuses. There are now about 350 endpoints supported by IVN and we expect to exceed 400 by end of this summer. Most recent growth has been in state government. There are less than a half dozen schools left in the state without any video conferencing and many schools are looking at adding second systems. We expect desktop video to grow because more applications are now available. We’ll need to work with Network Services to address the UBR/VBR issues to protect the registered sites.

Planning the direction and setting standards for video and audio conferencing and streaming technologies within the Enterprise Architecture (EA) planning at ITD and NDUS will be done with representatives from the different areas supported by STAGENet. Individuals have been identified and David will be leading this group. Kevin Danielson, Bruce Curtis (NDSU networking) and Sandy Sprafka (NDSU video support) will be representing NDUS.

Chad Gratten
The move of Continuing Education staff members from Gustafson Hall to the Skalicky Tech Incubator at the Center for Innovation is continuing. Eleven people moved during the first phase. Additional people are moving now. Terry Meland is doing a good job of responding to the network requirements as these moves are taking place. There is also some shifting of other people within the Center of Innovation. There is another network there to accommodate the non-UND supported needs.

We worked with ITSS to install a wireless access point in our main office area and are using authentication. We have some problems with the authentication and will be talking to Terry. If we open GroupWise before opening a browser we aren’t able to connect to the GroupWise server.

Zeke
We are in the process of moving over to the ITSS supported GroupWise and Novell services. We’re looking at eDirectory options, considering LDAP vs. AD for now. We’ve been using Samba as a domain controller and Novell for authentication.

In Dakota Hall we use NetReg for DHCP on a Linux server. When a student moves in they authenticate to the network with their NAID and a priority code (password) provided by Housing. The first time they access the network their MAC address is registered with the DHCP server, allowing them access for the rest of the semester.
ResNet, a group of students supporting residence hall computers, moved into a bigger office area. Support has been extended from assisting with problems accessing the network to doing a lot more desktop support. Even though Perfigo has gone well this school year it adds to problems when a student’s system is infected. ResNet deals with these issues and only reports problems to ITSS that are outside of their control, such as Perfigo issues or network problems.

**John**
We are currently using access control lists for security purposes but will put two Cisco PIX 525s in the perimeter of the network.

We’re interested in following wireless deployment in Rural Technology to avoid any issues with the Aerospace wireless. Because of the high density (36 total) of wireless access points at Aerospace and with 2500 laptops, there are some unpredictable things happening so it is helpful to know what is coming up around the area. We aren’t doing authentication for wireless. We are planning to purchase the Cisco Wireless LAN Solution Engine which will help with tuning signal strength. We are going to an Active Directory Domain at Aerospace so everyone will be required to login and we will push down network settings which should solve a lot of laptop issues.

We are considering the purchase a Cisco Access Control Server for RADIUS authentication. We are upgrading from our 3500 switches to 3750 switches.

**Chad Bushy**
We’ve been busy at CILT and will begin gearing up for the Blackboard course requests that will be coming up shortly for summer classes. We’re getting ready for the PeopleSoft application this fall.

**Jay**
There are still some reports of problems here in the Union where some devices are not able to get an IP number. Users of the devices with problems say it works at Gamble and other buildings. Bonnie suggested that we look closely at the installation again because we are not getting reports of these types of problems in other places. This summer both the Union and the Library will also be put behind the firewall services and authentication will be required. We’ll need to review and/or develop a process for guest user authentication.

We are planning for next fiscal year purchases. At the last meeting Bob Berg talked about ISS Secure Server. The price at CDWG is $1300 per server. I’m trying to get a price from Rich Roberts.

**Barry**
Networking is being added to the Neuroscience Building. We’d like to plan to put it behind the firewall during the initial installation.

We added 24 ports for servers in our new location. We’re running short of IP addresses for DHCP. Darren is working toward making a private management VLAN for the switches at the Medical School to free up some numbers. There is a DHCP option that changes the release time on leases to a shorter period of time which has helped with the shortage of numbers. If Neuroscience can be put on a separate network behind the firewall it will also help with the shortage of IP numbers. Barry requested that numbers released at the Family Practice Center be reserved for Medical School use. Bonnie will talk with others in ITSS.

**Roy**
We are anxiously awaiting the installation of singlemode fiber to EERC. Slow bandwidth from the Internet is resulting in a need to go home to get downloads from our broadband connections. Moves to the new building have been completed and we are still working on moves in the old buildings. There is still some Type1 cabling in our buildings and we are looking for funding to complete upgrades at EERC to be consistent with the upgrades done on the rest of campus.

**Bonnie**
We had a request to provide wireless network access in Twamley. A site survey was done and a plan submitted, which Desi Sporbert took it to the President’s Cabinet for approval. We don’t have final approval, but it looks promising. Twamley is a challenging building due to the type of building construction so we proposed starting with one floor for evaluation before installation throughout the building. Jim Shaeffer stated that authentication is a requirement as we move ahead with additional wireless installations.
NDUS Enterprise Architecture
Bonnie shared the six guiding principles that were agreed upon for all campuses in the North Dakota University System.

Next meeting – April 12, 2005