Present: Tony Houdek, Jay Smith, Don Larson, Larry Fisk, Chad Gratton, Corey Quirk, Kevin Danielson, Brent Logan, Dale Ricke, Harold Bruce, Jeff Cox, Doug Osowski, Jing Wang, Carl Warrene, Brad Miller, Michelle Rakoczy, and Bonnie Jundt
Absent: David Belgarde, John Wold, Karl Martin, Corey Shock, Barry Pederson, Roy Beard, and Renetta Johnson

Minutes from May 10, 2005 – Approved

We have new members from several areas; welcome to Jing Wang, Instructional Server Administrator & Senior Web Designer from CILT, Carl Warrene, Systems Administrator, Law School, Michelle Rakoczy, ODNA & ResNet Network Administrator, and Brad Miller, UND IT Security Officer.

IT Security update – Brad Miller
Brad has been at UND as the Information Technology Security Officer for nearly a month. He’s been meeting with IT staff in many areas of campus and will continue. He’s getting to know people and learning more about the campus environment. He’s receiving feedback from different areas of campus and is developing an implementation plan to accomplish some objectives. Brad expects to work with members of this sub-council to create awareness of IT security issues and to develop guidelines and security policies. He wants to know of security concerns from this group. Brad developed a web page as a resource for awareness at itsecurity.und.edu. Policy guidelines and procedures will be posted here. Some of this group is likely to be involved in a committee to perform risk analysis. Please stop to visit Brad at ITSS in 3rd floor UpsonII, call him at 7-3587, or send comments to bradmiller@mail.und.edu. He is also on our UND-Net Listserv.

Bandwidth on campus, STAGENet, and Internet – Kevin
A change was made on August 16th with the UND links to the state network (STAGENet). Rather than sharing bandwidth on our primary link with other entities within the Dakota Carrier Network, we now have a new OC3 that is dedicated solely to UND from campus to IdeaOne in Fargo. Our backup, or redundant, link to campus is the old OC3 which has bandwidth reserved for UND and is shared with state agencies. At IdeaOne, our OC3 is terminated into a router and connected with Gigabit to the Internet router. STAGENet has an OC12 at IdeaOne to Sprint.

With additional bandwidth available from the upgrade of the Sprint Internet links from OC3 to OC12 earlier this year, the bandwidth allocations for all institutions in the NDUS were reviewed over summer to plan for the upcoming school year. UND’s allocation is 195 Mbps, of which we are able to use up to 155 Mbps due to our circuit limitation. During the past school year we were limited to 31.5 Mbps. Graphs show that UND is using 40-50 Mbps to Internet1, along with in-state and Internet2 usage. Bandwidth traffic shaping is done with the Allott NetEnforcer, limiting peer-to-peer to 5 Mbps to the entire campus, with 2 ½ to residence halls and 2 ½ to the rest. Residence halls users are limited to 512 Kbps per user for more equitable use.

According to Don Larson, the Medical School is experiencing problems with video to the commercial Internet. At times it is impossible to maintain the videoconference, even at the slow speeds of 192 Kbps. The Medical School runs about 265 hours per month of video conferencing with 80-85% of that going outside of the STAGENet network. He also had trouble with a multi conference between only Internet2 member universities and has concluded that there is a problem within STAGENet. Corey, Harold and others agreed that they have experienced similar problems with download speeds over the last few months. Kevin committed to getting ITD involved in troubleshooting this problem right away.

Current status and next steps with campus infrastructure upgrades
• Cabling – Larry
We are continuing with upgrading to Cat6 cabling in various places, along with making overall improvements within communications rooms. Singlemode fiber installation was completed throughout campus and is beginning to be used. There are carryover funds that are being used to continue this work. We are waiting for information regarding continued funding for these upgrades in FY06.

- **Equipment – Kevin**
  A major upgrade was done to the core backup switch in preparation for using the singlemode fiber and upgrading equipment in additional buildings. The upgraded core switch supports higher speed and increased capacity and supports additional features, such as IPv6. We are planning to upgrade Starcher and Abbott entrance devices to Gigabit next week. Witmer and Leonard will follow shortly thereafter. Michelle asked about any existing plans to upgrade Housing to Gigabit. It is not in the plans in the current phase of upgrades. The campus approved FY05 funding for use in research in academic buildings. Requests for continued funding address expansion to additional areas of campus. We need information from all areas of campus to help with making recommendations and choices.

**Benefits of infrastructure upgrades**
We have a request to provide information regarding benefits from the campus provided funding for network infrastructure improvements and the upgrades accomplished over the past two years.

- Renetta was unable to attend today, but she offered information from Nursing. They tripled the size of their lab this semester; it went well without concerns of adequate bandwidth on the campus network.
- David Belgarde offered input from NDIVN. As IVN plans for additional audio and video services, he has confidence that these campus upgrades will help with supporting time sensitive applications.
- A new time-based graphics design lab was put in the Art Department. They purchased a Gigabit switch for this lab and Hughes Fine Arts is one of the buildings that will be upgraded from its distribution to the campus backbone.
- According to Don Larson, the campus network, along with access to the Internet, has become more reliable. Outages are rare and we’ve begun to expect the network to be up at all time.
- The Medical School expects to be able to do their video conferencing reliably.
- Continuing Education is concerned with the current problems with video conferencing, but anticipates benefits from the upgrades once these immediate issues are resolved. Macromedia Breeze is being used for classes this semester with limited success, most likely due to the same issues experienced with video at the Medical School. Providing these problems are resolved, when classes can be reliably delivered from UND, it will be a major accomplishment.

**Wireless Networking**
There is an increasing interest in wireless networking as people are moving toward laptops with built in wireless NICs. Students in residence halls are inquiring about installing access points and also want to know where wireless is available on campus. Some of the buildings include Aerospace buildings, Memorial Union, Chester Fritz Library, Education, Law School, along with some areas in Gamble, Twamley, Corwin Larimore, Skalicky, Gustafson, UpsonII, Carnegie, Leonard and Gillette. The Medical School installs access points for their users upon request.

There are security concerns with the different installations of wireless networking in various areas of campus and also differing opinions within our sub-council of the need for securing wireless networking. ITSS is planning that all ITSS supported wireless installations to be protected with the Cisco Clean Access application. Initial implementations will be the Memorial Union and Chester Fritz Library. Clean Access could be used to authenticate users, encrypt information, assure that systems have current OS updates and antivirus software, and provide a level of guest access. We plan to work with members of this sub-council to help with making recommendations for how Cisco Clean Access would be implemented.

**Voicemail issues – Larry**
Larry is aware of problems with the voicemail system and inquired if anyone is receiving a busy signal when dialing 7-5400 or after receiving the greeting when dialing another number. Many of us have experienced some of these symptoms, but after further attempts, are able to accomplish the desired result so we haven’t been reporting it. To assist with finding a resolution Larry requested that we send him email at larryfisk@mail.und.edu with the called to and called from phone numbers. Michelle brought up a problem...
she and others at Housing have experienced where the voice mail light is not on, however there is actually voice mail. Others have also experienced this same voice mail delay.

**Network update (accomplishments, projects, issues, Q&A)**

**Carl**
As a new employee at the Law School and UND, it’s too soon to share much. It’s been very busy. The beginning of the semester went well, even with the many hardware and software issues with servers.

**Jay**
We are running out of DHCP numbers here at the Union. There are a lot of devices that don’t need access to the Internet, i.e., timeclocks, pop machines, cash registers. Something needs to be done before conferences start. According to Kevin, when wireless is moved behind a firewall and Clean Access, it will not be using the current Union IP numbers. Jay said that guest access will be required when users need to authenticate with Clean Access.

**Don**
- We’ve been working with a Microsoft Exchange server and would like to know if anyone here has experience and can be a resource. Jeff suggested that Harold Bruce might be able to provide assistance.
- Another new device at the Med School is a Codian IP VCR. It records video conferences that can later be played back with an H.323 videoconferencing device, Real Media or QuickTime.

**Dale**
- We added a server in our control room that moves edited storage from editors using FTP. It is set up on a stand-alone Gigabit network.
- Digital signage on channel 3 and on student channel 17 was upgraded. It will now use IP communication.
- We’re waiting for some cabling to be done by Telecommunications. Because of the need for everything to be connected to the network, we requested eight connections, rather than just the two we need right away.

**Brent**
- We are looking at upgrading our proxy card hard wired system to Ethernet cards.
- The video system DVRs were upgraded to run over the Internet.
- Ticketmaster is being upgraded again.

**Michelle**
- Being at UND for just over two months now, I’ve had an introduction to Perfigo, DSL, and the other beginning of school issues. ResNet is very busy with more than 20 computers at a time needing their assistance. There are a lot of Clean Access issues with various problems.
- New servers were purchased and Adam is upgrading them to 2003.

**Corey**
- Requested an update on the Lead Server Administrator position at ITSS, hoping that when the position is filled there will be progress with McAfee Entercept. Right now we are just using the Microsoft firewall and are looking forward to progress with Entercept.
- We’re using Breeze as a pilot for this semester. A lot of classes are going online.

**Doug**
- Famis has been implemented and is now going smoothly. There were a few issues, but they have been worked out.
- Novell servers are now replicating. The automation servers and the Novell server will be put in a rack soon.
- We are looking at purchasing a rack mounted NAS backup system for our Microsoft and Novell servers.

**Jeff**
College of Business is looking forward to VPN access.

**Jing**
Inquired about the status of Entercept and is looking forward to an update from ITSS.

Next meeting – Oct. 11, 2005