Present: Tony Houdeck, David Belgarde, Jay Smith, Brandon Thorvilson, John Wold, Larry Fisk, Chad Gratton, Kevin Danielson, Brent Logan, Dale Ricke, Zeke McKinney, Harold Bruce, Jeff Cox and Bonnie Jundt

Absent: Corey Shock, Barry Pederson, Don Larson, Roy Beard, Chad Bushy, Doug Osowski, Ron Braley, Corey Quirk, Renetta Johnson and Karl Martin

Minutes from April 12, 2005 – Approved

Switches outside of communications rooms – Zeke
A short campus network slowdown was caused when someone unknowingly plugged some cables incorrectly into a switch that was installed on a temporary basis outside of a communications room. This is a good reminder of the importance of working toward the goal of placing all network communications equipment in secure communications rooms to help maintain a more reliable network. We should strive to plan for adequate cabling for all network attached devices.

Dale expressed his concern about the cost of cabling for the many devices that are needed in the control room at TV Production. From a cost perspective, locating a network switch in the control room would be desirable, but we talked about the need to keep switches in the communications rooms for security reasons and the ability to centrally manage. Larry explained that the cost of cabling can be substantially reduced when we plan ahead and run more cables at the same time.

McAfee Entercept – Tom Neveras (unable to attend, provided handout)
This information will be saved with these minutes.

Desktop Video – David
We are getting requests from agencies across the state for desktop video and we’d like to know how much interest there might be on campus. Polycom has some new products available. One of those is Polycom PVX software, a desktop application that can be used with the Polycom ViaVideo USB camera, or with any other USB camera. A second solution is Polycom web conferencing software, a client/server based application. NDIVN has it running on a server and purchased a 25 client version of the software. Linked together, these two products provide combined desktop video and web collaboration. Testing has gone well. A third piece allows for multipoint in a single conference, using a multipoint control unit.

David also shared a white paper on H.264, a new video coding algorithm that does video at lower data rates with very good quality.

The list price of the PVX software is $150; a USB camera costs between $50 and $130. There is the potential of significant bandwidth usage for these applications. The default configuration is for 256 Kbps, but it can be set to use 2 Mbps. The State Health Dept. is planning to deploy up to 500 clients.

Aerospace has an interest in desktop videoconferencing, in particular between the airport and campus. We believe we should plan appropriately so that the network is not the limiting factor in the success of applications such as video conferencing and streaming, but at the same time encouraging responsible use of resources by setting the data rates at the lowest possible speed to get acceptable quality.

In the initial plan for supporting desktop videoconferencing we have ports available on our multipoint conferencing bridge in the core of the STAGENet network. The desktop systems are capable of conferencing with the room systems that are used today.

NDIVN was asked by the University System to provide a video streaming solution. IVN currently has Starback, which was designed for streaming H.323 video. It allows for displaying both the people in the
conference and content images simultaneously. The Starback enterprise solution has a management system that would allow each campus to have its own directory of content and to manage it locally.

**FY05 Campus network infrastructure upgrades**

- **Cabling update – Larry**
  Single mode fiber installation is nearly complete throughout campus. EERC and the Stanford Center are still outstanding, but everything will be done by the end of May. Cabling upgrades inside buildings continues. Everything has gone extremely well.

- **Equipment – Kevin**
  As soon as the singlemode fiber is complete and tested we should be able to begin installation of equipment. Some core upgrades need to be completed and then equipment can be placed in designated buildings.

**ConnectND and Ancillary update (Housing, Parking and Facilities)**
Zeke reported that the Housing ancillary system has gone extremely well. Parking has been a challenge when using VPN due to the additional overhead of 3DES encryption which causes slow download speeds. Options are being considered which could provide an acceptable solution.

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

- **Dale**
  A SAN was implemented with a two terabyte RAID system, tied together with 2 GB fiber channel.

  A server was added for the movie channel that goes to the residence halls so half the movies are now provided from a hard drive.

  The Regional Weather Information Center and Center of Aerospace Sciences was tied into our studio.

- **Chad**
  A problem was found with McAfee 8 running on Windows 2000 and 2003 servers. It caused intermittent performance problems. Patch 10 resolved the problem.

- **Brent**
  Ticketmaster changes were done recently along with some other minor updates.

- **Harold and Jeff**
  Looking forward to the summer, we’re interested in VPN and Voice over IP (VoIP). We’d like to be involved in campus discussions and direction for VoIP. Marketing Research at the School for Business is looking at doing surveys and we’re interested in possible cost savings. Larry explained that if dial tone is needed it still requires traditional phone trunking and there wouldn’t be any cost savings. As more is learned about what is wanted, Harold will talk with Larry and Network Services.

- **John**
  Refer to minutes from last month for summer networking plans at Aerospace.

- **Kevin**
  We’ve had calls from residence halls from individuals with Packet8 or Vanage (VoIP) phone service. In order to learn more about these services, we allowed the MAC address through the Perfigo system and requested feedback. This is likely to become a bigger issue when students come back in the fall.

- **Bonnie**
  Bob Berg resigned as our campus Information Technology Security Officer. Until someone is hired in his place, Kevin Danielson will be the UND network security contact. Feel free to call him with any network security issues and he will provide assistance or direction.

- **Zeke**
  Zeke announced his resignation as of May 27th. Adam Ramberg will be handling the network administration duties until someone is hired. The open position has been posted.

- **Jay**
  Normal updates are ongoing and planned for summer. Wireless network access continues to be problematic at the Union and seems to be related to different NICs.

**Next meeting – Sept. 13, 2005**