

## Summary of NI&S Advisory Committee Meeting: 05/ 03/11

### In attendance:

#### Chair

William Dougherty                      Executive Director, Network Infrastructure and Services

#### External Members

\*Ron Angert                              Emergency Preparedness Planner, Division of Student Affairs  
\*Dr. Charles Clancy                      Director, Hume Center for National Security and Technology  
   Virginia Tech, National Capital Region  
\*Michael Coleman                        Associate Vice President for Facilities Services  
Wendell Flinchum                        Chief of Police  
Dr. Jeff Reed                                Willis G. Worcester Professor, Bradley Department of  
   Electrical and Computer Engineering, and  
   Director, Wireless @ Virginia Tech  
Dr. Glenda Scales                        Associate Dean for International Programs and Information  
   Technology, College of Engineering  
  
Dale Pokorski                              Director of IT, College of Engineering, Dean's Office  
  
Brenda van Gelder                        Executive Director, Converged Technologies for Security,  
   Safety and Resilience

#### Student Members

\*Andrew Barnes                         Ocean Engineering, Class of 2013  
\*Zack Morris                                General Engineering, Class of 2013

#### Network Infrastructure and Services

Morgan Allen                              Director, Systems Development and Administration  
Jeff Crowder                                Executive Director, Strategic Initiatives  
   VP for Information Technology  
Dr. Mark Gardner                        Network Research Manager  
Richard Hach                                Assistant Director, Network Administration  
Carl Harris                                 Chief Technology Architect, VP for Information Technology  
Joe Hutson                                 Director, Voice and Mobile Technologies  
\*Brian Jones                                Director, Network Engineering and Systems Support  
John Nichols                                Information Technology Manager  
John Pollard                                 Director, Network Engineering Operations  
Pat Rodgers                                 Director, Revenue Based Business Planning and Operations

\*New Member

## Summary of Major Topics.

1. **Unified Communications System:** See attached slide deck and building list. Note: Class A buildings are those that require electronic gear (switches) upgrades to work under a full “Voice over IP” (VoIP) solution. Class B buildings require the electronic gear PLUS inside cable improvements, and Class C buildings require gear and cabling PLUS room construction to expand telecommunications facilities.
  - a. Using end of year operating funds, CNS will be spending approximately \$775,000.00 on Class A building equipment and working on the Newman Library building this fiscal year.
2. **DAS (Distributed Antenna System):** Goal is to improve cellular coverage in buildings on-campus. VT is partnering with an integrator, the same one used at UVA, to work with the providers. Verizon and AT&T are very interested, and others such as U.S. Cellular, T-Mobile, and Ntelos also have some interest. The project is geared toward having little to no financial impact on the university as the providers would bear the costs for construction and maintenance.
3. **Video Surveillance System:** An award to a northern Virginia based integrator, Orion Systems Group, was made and planning has already begun for the Perry Street parking garage. CNS and Emergency Management are developing a process for university departments to use to request work from the vendor as well as the various on-campus agents (CNS and Facilities among others).
4. **Wireless capabilities proposed to National Instruments for the Signature Engineering Building:** Dr. Reed shared information about this potential experimental project involving equipment from National Instruments. This type of wireless system would be capable of using a variable bandwidth – 100Mhz to 6Ghz – and not be based on 802.11 protocols. The goal would be to develop new applications for everything from location aware applications for inventory control to “augmented reality” apps.
5. **Fiber backbone/core improvement:** A \$2 million draw from the CNS reserve fund will allow for increased capacity and capabilities in the network core linking the six on-campus switch rooms, and begin to improve distribution capacity to buildings.
6. **VT Alerts development requests** from Emergency Management will be reviewed and costs specified to enhance the current system.
7. **E-mail hosting RFP for non-Exchange based e-mail users:** Goal is to have a decision made by mid-May with possible implementation for fall of 2011.
8. **Mobile convergence between Unified Communications and e-mail services:** There will be many opportunities to expand features for mobile users as the UC project progresses and e-mail systems are moved into a hosted environment.
9. NI&S has been very involved in support of the **VT Research Institute** and the new building in the Ballston area of Arlington. One of the residents will be the VT Applied Research Corporation which has begun discussions with CNS on network design for offices and a data center in the VTRI building.
10. NI&S has been very involved in support of the **VT Carilion Research Institute**, including developing a partnership with Carilion’s IT staff.
11. An **electric power infrastructure improvement project was begun in the AISB Data Center** this year. An additional power feed (1.5MW) has been installed in the machine room. Backup power assets, Uninterruptable Power Supplies (UPS) and generators, are being specified now for future purchase.
12. **Cable TV backbone conversion from coaxial cable to fiber** almost complete: This project has improved signal strength and picture quality and provided the side-benefit of decreasing congestion in the cable pathways entering buildings.

