

Minutes
Network Infrastructure and Services
Advisory Subcommittee
December 7, 2009

Present: Morgan Allen, Jeff Crowder, William Dougherty, Wendell Flinchum, Richard Hach, Carl Harris, Judy Lilly, John Pollard, Jeff Reed, Pat Rodgers, Joey Taylor (student representative)

Emerging Wireless Systems: Jeff Reed provided an overview of the direction of wireless systems for the future.

MATP/NLR Updates: Jeff Crowder provided an update on regional and national network programs and Virginia Tech access for the main campus and National Capital Region.

NatCap is an aggregation node in McLean Virginia owned and operated by Virginia Tech. A new, second, diverse node is coming online in December at Equinix in Ashburn which will provide high performance access to NLR, Internet2, federal nets, and commodity internet for universities and agencies throughout Virginia, Maryland, and Washington, DC. MATP members will gain NLR member privileges through the Virginia Tech Foundation Class A Sustaining Membership in NLR.

The Virginia Tech main campus is connected to NatCap with a 10GE link. In December 2009, a new 10GE link will be added via diverse fiber path to Equinix and connected to McLean for a full ring. The new link is scalable with a WDM mux in ISB. Virginia Tech is in the top five percent of Doctoral Extensive Universities for capacity (Educause survey, October 09).

In the National Capital Region, Network Infrastructure and Services (N&IS) is preparing an RFP to connect a new building in Ballston to McLean and Equinix with dark fiber. This will provide virtually unlimited capacity to national networks. (MATP members agreed to work on a plan for a statewide, private fiber network extending the same capability to all Virginia universities.)

National LambdaRail: Jeff Crowder reported that Glenn Ricart is the new NLR CEO; Richard Hach is the new NLR board of directors representative for MATP/VTF. The national network upgrade was completed with 1,600/1,320 Gbps transcontinental to include 32 cities and hundreds of universities and federal labs. International peering points are New York City, Chicago, Los Angeles, Seattle, and Miami.

Internet2: Jeff Crowder also reported that MATP/NWV aggregates with MAX are to share a 2.5Gbps connection at McLean. Plans are to increase the connection to 10Gbps in first quarter, 2010.

Commodity Internet: Jeff Crowder briefed the subcommittee on this topic. Virginia Tech provides high capacity gateways to commercial ISPs (Level3, Cogent, and TransitRail) at NatCap which has enabled Virginia universities to dramatically increase internet capacity with little increase in costs. A 4Gbps capacity is currently in place. When Equinix comes online, the capacity will increase by 1-10Gbps.

IBM DB2 Environment: William Dougherty noted that Virginia Tech is beginning exploration of IBM's DB2 environment. As an alternative to ORACLE, DB2 may be leveraged for research and new enterprise initiatives.

Virginia Tech Police Department Project: William is assisting with a Virginia Tech Police Department project to outfit patrol cars with Mobile Data Terminals and others with wireless PDA devices to keep everyone connected.

COOP/DRP: William indicated that COOP/DRP work to assure critical services can function is in progress. N&IS is answering audit inquiries while investigating the best mix of co-located services owned and managed by Virginia Tech and use of cloud services as methods for reducing recovery time in the event of loss of facilities.

Google Alumni Project: William's area is working on Google for Alumni project, and he provided an update on the project status.

Wireless RFP: Richard shared information on Cellular Infrastructure RFP #0010260. As discussed in September, Network Infrastructure and Services has released a Request for Proposal (RFP) to improve outside cellular coverage on the main university campus. The RFP was released on November 25, 2009 by the Purchasing Department (<http://www.purch.vt.edu/html.docs/bids.php>), and sealed proposals will be received until 3:00 p.m. on January 22, 2010. Guided site visits are available December 15-17, 2009, if offerers wish to schedule them. The RFP is limited to outdoor antenna systems, and following implementation, in-building coverage will be addressed. The RFP document can be found at the following link:
http://www.purch.vt.edu/html.docs/bid_administration/upload/0010260_012210.pdf.

100Base-T Upgrade: John Pollard discussed the 100Base-T Upgrade project. While NI&S continues to plan an upgrade to all major campus buildings that will allow it to provision gigabit Ethernet to the desk, we are taking an incremental step this fiscal year to replace the 345 remaining Ethernet switches that can only provide 10Base-T service with switches that can provide 10/100Base-T service. The timeline is under development, but this effort will likely be completed by summer 2010.

Distance Learning Focus Group: John also reported that Video Broadcast Services is collaborating with Learning Technologies to convene a Distance Learning focus group to gather stakeholders to define system requirements and features required to continue to provide high quality services, tools and applications to support Distance Learning at Virginia Tech as instructional requirements and technologies evolve. The plan will then be submitted to the university administration for review.

VT Alerts: Carl Harris briefly discussed the status of the VT Alerts development projects. In particular, he noted that at this point in time all of the communications modes deemed most critical were implemented and are performing as expected. In response to a question regarding testing of the VT Desktop Alerts application, he pointed out that it had been tested as part of the public test in October and it would be tested again during the upcoming spring semester.

Carl also gave a brief description and status report on the E-911 system upgrade scheduled for deployment in early January 2010. He indicated that while there were still some timeline risks associated with the project, CNS engineers are working diligently with vendors and service providers to ensure the system will be fully operational before the start of spring semester.

NSF ARI-R2: Mark Gardner noted that NI&S submitted an NSF ARI-R2 proposal to renovate the core backbone on campus but has not received a response from NSF.