October 7, 2008
Connectivity Committee Meeting
MINUTES

**Network Projects Review**– Ed Anderson (SCS)

Most of the Network Resources are being consumed by the installation of the iNtegrate infrastructure in both Reno and Las Vegas. Chris Gaub will provide a more thorough Update later in the agenda.

**Video Conferencing Requests** - There have been a number of requests for additional video capability to allow access to, and participation in, iNtegrate meetings. As a result, there has been a scramble to get more video units connected in dedicated rooms.

The installation of the video units that were purchased for UNLV and TMCC as part of the iNtegrate pilot program and project development have been completed.

Two additional video sites requested by CSN have also been completed.

The new Crescent Valley/AHEC video site is also complete.

**System Administration - Reno Fiber Path Relocation** - Fiber has been pulled at UNR, and they will complete their testing today. Jeff Wolff spoke to Kirk Fitzgerald and Jim Mueller about this last week, and it needs to be added to the calendar.

**Pahrump Capacity Addition** – SCS filed a complaint with the Public Utilities Commission requesting their assistance. The PUC contacted SCS and has worked with COX, XO Communications, Sprint, Embarq and AT&T to understand the situation and exercise whatever leverage it has to expedite a solution.

SCS had to cancel the original order because there were some problems with it. We created a new order and agreed to terminate in the Nye County School District Office instead of the GBC facility. This will shorten the build and shorten the construction time. However, we still do not have an in service date yet.

Both Cox and AT&T have acknowledged their responsibility and are moving to get something done. Hopefully, we’ll have something more substantive to report soon.
**iNtegrate Infrastructure / Systems Support Services** – Chris Gaub (SCS)

The RFP process for the iNtegrate server infrastructure has been completed. The contract has been awarded to Source One and IBM to provide the infrastructure for the iNtegrate system. That represents four primary servers in each of our data centers plus other support servers. The operating environment will be AIX principally, but the People Soft environment does require some Windows servers. The Windows servers will be provided via the blade servers.

Most of the equipment has been received at SCS Reno and SCS Las Vegas and has been installed. Source One is engaged installing and configuring the server operating systems and are working in both data centers. This week they are in Reno.

After deliberations, NSHE has elected to go with a three instance rather than a four instance implementation model. That does change the system configuration somewhat.

We are also installing networking infrastructure. Most of the wiring is either fiber channel connections or copper Ethernet connections. Most of the copper connections have all been completed with permanent wiring. Some of the fiber channel fiber jumpers are not here yet, and we have been using temporary cables to support S1 and their implementation. The temporary cables will be converted over to permanent when they arrive.

Everything that was required for the facility to support the iNtegrate equipment has been installed. The power has been pulled to the appropriate rack locations and all the overhead wiring racks and channels have been installed.

As far as Systems Support Services is concerned, SCS upgraded and applied maintenance to Mustang on Saturday evening. On Sunday morning, November 2, we will be installing the very same maintenance on Big Horn. That is our preventative operating system maintenance on those platforms. We are also in a planning process now to upgrade the CICS that runs on both those server platforms to keep it up to date.

**Information and Application Services**

No representative from IAS was able to attend because of iNtegrate commitments.

**Client Services/System wide Software** – Susan Bunyan (SCS)

We recently paid the Feronics bill, which is the deep freeze product for the campuses.
Yesterday, Symantec came and spoke to the entire software committee about various products. They talked to the campuses about their security – end point security, file storage, ghosting. There was some interest, so Symantec will follow up with some webinars for those interested in looking at some of their solutions.

In February, our campus agreement will renew. The committee has agreed to renew with the current reseller, so it will not be necessary to go out to bid again.

**System Security** – Paul Mudgett (SCS)

The notes for the last Security Interest Group meeting have been sent out. No date has been set for the next meeting yet.

We will be reviewing the Security Interest Group, its structure, meeting frequency, etc. and considering adjustments.

**Operational Issues/Events** - All

**Core Router Failure**
On September 24, SCS had a core router outage in Las Vegas. It occurred during a maintenance window when we upgrading the IOS from a level 6 to a level 15. The unit held for about an hour, but then crashed. We then went back to the original IOS version. It held for awhile, but then also crashed. We then reloaded the level 14, not 15, and then it held. We are still trying to get a resolution through a TAC case with CISCO. The problem started at about 8:30 a.m. and by 12:45 p.m. we were passing traffic again.

When it crashed, it took the North/South gigabit connection and the southern internet connection with it. Southern Internet traffic was trying to go North and out to the Internet through the backup N/S OC6 connection. A traffic load of approximately 500 Mb/s was trying to go over a 300 MB/s north-south pipe. As a result, there were some significant performance impacts.

**Vbrick Usage**
Some of the NSHE institutions, UNR, CSN, and TMCC in particular, have procured and are utilizing Vbrick technology or something similar that allows for an IP source to be streamed over the network. It is obvious that there is value to this technology. It can be used to stream meetings, training sessions, etc.

SCS recently learned that Vbrick streaming technology is being used for iNtegrate meetings as well to allow monitoring of the meetings by those who might be unable to attend physically. This application appears to be working well but SCS
is a little concerned about some of the potential security and confidentiality issues that this technology poses.

If a Vbrick appliance is connected to a scheduled video room codec, then it is possible that scheduled video conference sessions can be broadcast to anywhere within the NevadaNet system, or beyond via the internet, without the knowledge of the original meeting participants. Since there is currently no announcement or indication that a particular session is being streamed, there is no way for meeting participants to actually know who might be viewing the session.

Ed Anderson asked about the usage of Vbrick technology at the various institutions.

CSN indicated that it had replaced its Vbrick units with CISCO equipment and that they were only using it for IPTV applications to support informational video screens throughout their network and that they were not streaming video meetings.

UNR indicated that they were unaware of any Vbrick units being used on their campus, but that they would check into it.

TMCC indicated that they were using Vbrick technology in conjunction with a VOD server for internal meetings, iNtegrate video sessions, and other applications.

SCS contacted Vbrick to find out more about this technology and what other uses might be doing to make the technology more secure. There do appear to be mechanisms by which Vbrick can be made more secure and SCS will be investigating these alternatives in order to provide recommendations on how to mitigate exposure and limit as much as possible the viewing of video conferencing sessions to only those authorized to view them.

In the meantime all institutions need to be cognizant of the fact, if they are not already, that scheduled video conference sessions may not be as confidential as one might think.

**Other Issues**

None offered.