February 7, 2012
Connectivity Committee Meeting
MINUTES

Network Services – Ed Anderson (SCS)

Southern Metro Ring Upgrade

We had some struggles, but we got the DWDM up and running on 1/7/12, and all the nodes are connected and passing traffic. We are still working with UNLV to get the VOIP to the Cheyenne campuses resolved, but the ring is closed and working almost flawlessly from our perspective.

There were a number of little things that went wrong – bad jumpers, jumpers of the wrong lengths, etc. We found out at the last minute that there was some nursing testing at CSN planned during the outage that was web based, and we had to work around that. Fortunately, we were able to make everything come together.

The ring is now closed, but there are some issues associated with the phone service to Shadow Lane. At the moment, it's not exactly as UNLV would like it to be. SCS has loaned UNLV some temporary equipment for 30 days to keep it running, and they are working hard to get it completed within 30 days.

Most of the equipment for the project was pre-staged. That helped a lot, and we were able to make a lot transitions from one set of equipment to the other very quickly. Some of the things we didn't have enough of were jumpers and connectors. Fortunately, it did not result in an extended outage.

Northern Metro Ring Upgrade Status

In Las Vegas the work was accomplished in two service events, while in the North, the work will be accomplished gradually over a period of time, with no substantial outages anticipated; the reason being the topology is different in the North compared to the South and requires a different approach. There are only two fibers in the ring in the South, and there are four fibers in the ring in the North. The northern ring will be complete by the fall, and upon completion NevadaNet will have a full 10GB backbone.

Leased Line Consolidation

In an effort to eliminate some additional expenses, SCS has been working with the institutions and entities on the NevadaNet network to reconcile and eliminate lines that aren't being used heavily or not being used at all. It is our plan to make sure that any entity that is being served by a circuit, where they are the only entity on that circuit, that the entity served picks up the expense for that circuit. If it is a connection shared by multiple entities, it will be considered a network connection rather than a last mile or dedicated connection, and SCS will continue to assume the ongoing financial responsibility for that connection. SCS is working with the Cooperative Extension, K-12, Stead, UNR, etc. to either transfer financial responsibility for ongoing charges

associated with dedicated circuits or disconnect the leased service by fiscal year end.   If you haven't been contacted already, SCS will be contacting those remaining entities affected as we slowly work our way through the list.

We've had some pretty good success so far and thank the entities involved for their cooperation in making this transition.

Systems Support Services – Pam Burns (SCS)

The last firmware upgrade was completed for the non-iNtegrate box this month.   Thanks to GBC and WNC for giving us the time to complete this.   All the firmware is completed for now until the next go round.

The other thing we have been working on is moving the old Student Application from the mainframe in Reno to the mainframe in Las Vegas.   That has been completed as well, so access to all three of the legacy applications (HRS, SIS, and Financial) is through one mainframe now.

That project is part of another project of replacing the mainframes.   Both new mainframes were delivered and both are physically installed and we'll be doing the cutover for the southern machine this weekend.   That has been scheduled for 8:00AM to noon on Sunday.

Two products, which are decommissioned as of January 31, are NSN and the DARS application, which was part of the old student application.

The other main thing on our plate is migrating TSM, which is our back up system for iNtegrate and UNIX environments.   We will be going from 4 servers to 2 servers.   The northern are well under way.   The legacy is all migrated, and iNtegrate is mostly migrated.   We have also started configuring the new server in Las Vegas.

System Security – Paul Mudgett (SCS)

No one was available to give an update.

Data Center Operations – Rich Ayala (SCS)

The last time we met, I mentioned SCS was looking at some projects to improve Data Center efficiency and energy usage and cost. We're looking at where we can best use funding for some of those.

We continue to make some repairs within the infrastructure where needed.   We've had some things done to some cooling system components and pumps.   We've also looked at funding for installing a new cooling system control panel and some new system actuators

for a couple of the valves that control flow throughout the system.

We are looking at some options for equipment. We've had a couple of pieces of equipment that are getting closer to end of life, so we have started planning for that. We are also starting some planning for our heat pump installation. We have approval from the ATCC and SHECC funding. Fortunately, that source gives us a couple of years to get the work completed.

Client Services – Robert Prior (SCS)

Client Services completed some training for the Lotus Notes to Gmail transition at SA North last week, and this week they are doing that training at SA South. We had hoped to complete everything by the end of February, but there is concern by some of the board staff about switching before the next Board of Regents meeting, which is March 1 and 2. So, there might be a slight delay.

We are currently still set for a March 1 go live date for KACE. Recently an updated, more detailed WBS was created for the remaining scope of work. We are currently working on completing ticket rules, which automate processes within the system. This effort should be completed by the end of next week, and we're also preparing training materials to get people trained.

We did work on a proof of concept for a sub service system, which will be for people who aren't within our active directory. They'll be able to open tickets from a web page. They would be able to open up a ticket and have it go directly to the group that the ticket would be assigned to. This will save a lot of time given the changes we've had in our service desk, where normally anything emailed in would go to the service desk and then be generated into a ticket. This will be automatic and save a lot of time and extra effort.

System Licensing and Contracts – Chris Gaub (SCS)

The NSHE Software Licensing Council is preparing for the July and August renewals, where we pick up many of our software licenses. We are currently working in earnest on the Microsoft Campus Agreement renewal, which renews at the end of March. I've also begun working on an NSHE-wide contract for Canvas, which is the new LMS that will be used at CSN, GBC and TMCC.

New Technologies

None offered.

Operational Issues/Events

Outage in the iNtegrate Area – Jim McKinney

Last week, we had a switch in the server room (in the iNtegrate area) that stopped passing traffic, but gave no indication of any failure. The Shared Instance wasn't affected because a database server, an app server, and a web server continued to run.   Those ports were up.   So, in the Shared Instance, transactions were flowing, but they may have been a little slower.   UNR also had a web server, database server, and an app server, but the configuration wasn't load balancing.   A transaction would come in to a specific web server, and that web server would look for a particular app server.   When that app server wasn't there, the configuration wasn't defined for it to go look for the other app server. So, doing the diagnostics on it, we contacted Network Services and they started looking at logs etc.   None of the switches were throwing any errors.   We were getting nothing on the logs.   We had two consoles side by side.   One indicated that all the equipment was up.   The other indicated it couldn't see half of the equipment.   It took us a little longer than 10 minutes, because we disabled ports and re-enabled ports, which wasn't working.   Finally, we rebooted the switch and it came back up immediately.

iNtegrate Loading Issues Related to New Semester – Jim McKinney

UNLV didn't have any issues.   Everything went as planned.   With UNR, we had two separate issues.   The iNtegrate UNR had one specific issue, which we feel at this point, was applications based.   It wasn't a system load issue.   They had put in a new tools version.   There were attaching issues.   We also had the Microsoft update and chrome issue.   We worked with UNR through that process and by Tuesday, mid afternoon, things were running pretty well.   It was not a smooth upgrade on either side, but I think we learned a lot from it.

As for the applications side, we had some configuration issues.   UNR also had some configuration issues.   It was a matter of working through how it was load balancing. We were pushing the systems, but we weren't maxing the systems out from a hardware perspective.   We weren't seeing any major delays.

On the Shared Instance side, the problem is that they ran out of hardware.   It occurs on when CSN does a purge.   CSN purges everyone out of classes that have not paid on a Friday.   No registrations happen on a Saturday or Sunday.   On Monday morning, they open the floodgates, and it's a registration tsunami that hits the system.   There were some issues; CSN's purge didn't run on Friday.   On Monday morning, students were trying to register for classes that weren't available.   The load basically reached its maximum level and just stayed there.   Because of the way the Shared Instance is architected, it affects all of the institutions in the Shared Instance.   TMCC and NSC also started classes that day, so it was bad.   By Tuesday, everything was okay.   The next Monday, classes started for everybody else and the system was pegged on CPU; it was CPU bound.   We had headroom in the memory; we had headroom in I/O, so we turned on capacity on demand to add additional CPU.   We have engaged IBM with a new sizing document.   There is a little bit of money left in the iNtegrate I budget, and we are going to see exactly what we need to do.   Our goal is to have new equipment purchased and in place by early May, so that things are ready for the fall semester.

Other

None offered.