May 7, 2013
Connectivity Committee Meeting
MINUTES

Network Services – Ed Anderson (SCS)

SCS/SA Wireless Upgrade

A project that SCS has been working on for a while is the upgrade to the System Admin wireless system. This project is completed and seems to be working as designed. Two new wireless SSID's have been introduced NSHE and iNSHE that have replaced the old SCS Guest and SCS User SSID's respectively.

LV SA Office Move

SCS has several projects in conjunction with the moving of the Las Vegas System Admin from its current location to the new building that was purchased. One is to get fiber across the street to the new facility. There is an effort to bore under Maryland Parkway to the new location. There are permit processes required, and we are preparing a submittal package to the county for permission to bore under the street. As a backup, we are also putting in a wireless shot from the SEB building on the UNLV campus to the new facility. That has been moving along well and according to schedule. This aspect of the move should be fairly easy compared to the fiber option.

In addition, SCS has funded, and UNLV is doing most of the work, to establish an additional fiber path along the UNLV campus to help facilitate the SA project needs as well as future growth.

Another project will also support the SA office move is the design of the AV requirements in the new location. There's going to be a large conference room planned that is similar to one at SCS North – a large open area that can be used for special board meetings and similar functions. There's going to be special AV requirements for that. UNLV has some expertise there that we are going to lean on to help us get a design that is going to work for everyone.

Firewall Upgrades

SCS has some firewall upgrades that we're working on. Scott Jung is working on the Reno legacy firewall, and the tentative completion date for that is August 1. Joel Nevarez is working on the Las Vegas iNtegrate firewall, and it is tentatively scheduled to be completed by the end of July. We'll keep you posted on those dates. The Las Vegas legacy firewall is further out in time and will begin after the iNtegrate firewall has been completed. Outages are anticipated for both the Reno and Las Vegas upgrades. These outages will be coordinated users and performed in normal maintenance windows as required.

Project Queue – Tom Nieva (SCS)
For the major projects we're working on in the Engineering Department, for the month of April, we had 3 new projects added to the list, completed 15 projects with a balance of 47 in the queue. About 14 of those are on hold for various reasons.

Systems Support Services – Pam Burns (SCS)

SCS is still working with each of the instances to upgrade their operating systems to Technology Level 8. We started with about 120 systems that needed to be upgraded, and we're down to just under 30. So we're making progress. We had a problem when we were removing LPARS between physical systems with one of the HMCs, so we've been working directly with IBM, and we just got a fix for that. Once that fix has been applied, we'll be able to get back to moving LPARS to where they need to reside.

We are also working with the Shared Instance on setting their environments when they first boot up and making them consistent across all of their boxes. That's an ongoing clean-up effort as well as a restructure.

Chris Gaub added that SCS is continuing to work on our Mass Storage Enhancement RFP. We are in the best and final stage, and working with the best and final candidates to come up with final configurations and pricing.

Data Center Operations – Rich Ayala & Robert Prior (SCS)

DC Operations is continuing to make preparations for the Mass Storage Media Enhancement project. We are looking at a ladder rack we need to install, and electrical connections that we need to finalize, in both centers to be able to support the equipment install.

Rich Ayala attended the AFCOM conference last week. This is the data center management conference, and it was held in Las Vegas this year. It was a good learning experience, and we got a lot out of the sessions themselves as well as talking to our peers about their data centers – some of which are very large facilities. A lot of the decision making processes that they went through in these sessions really emphasized looking at costs versus reliability and maintenance needs to ensure equipment is properly staged.

The emphasis this year was looking at raising the computer room temperature to something that ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) gives as guidance or strong recommendation. They talked to well-known manufacturers and asked them what their temperature range of operation was and under what temperature conditions their equipment would still work. They concluded from their survey that it is possible to raise the temperature significantly higher than previously thought. The reason for focus on cooling costs was due to the

large, and growing, expenditures by data centers related to energy and cooling costs. Overcooling of equipment leads to significant expenses that could otherwise be avoided.

The other thing that was interesting is that the ASHRAE folks have developed a lot of innovative ways to establish containment for either hot aisles or cold aisles. Some advantages and disadvantages of using each were presented, and in the end, their feelings are that there isn't any real net gain to using one over the other. The conference was very worthwhile and I would encourage anyone who has the opportunity to go.

There were some end of year funds allocated to the Data Center , and we were able to purchase another computer room air conditioner. This air conditioner will be a new installation in addition to what we already have and will provide much needed redundancy in the Las Vegas computer room. We don't have a date for installation yet; we're still waiting on delivery.

As part of our heat pump project, we will be installing more than a dozen heat pumps in the Las Vegas facility. We're waiting for some final engineering to be completed and hope to begin this quickly.

Lastly, we are having both the Las Vegas and Reno computer room floors cleaned. They will be cleaning the subfloor, lifting tiles and checking the structure underneath, pulling out debris, etc. This will take place in Reno on May 29, and in Las Vegas on June 6. We'll be using the same vendor we used before. There will be no outages associated with this.

Enterprise Licensing and Contracting – Chris Gaub (SCS)

The Microsoft EES contract has been executed and four NSHE institutions that processed upgrades to Enterprise Desktop Platform. The Home Use Program (HUP) is available again and access information has been distributed to the NSHE Software Licensing Council. Home Use licensing keys should only be distributed to permanent employees of NSHE institutions.

The Microsoft Select agreement is processed and every institution has submitted its Select Plus affiliate enrollments, which are either in review or have been accepted by Microsoft.

SCS has invoiced for the SAS administrative license for workstations. We are in the process of renewing the Smart Thinking contract. We are in the process of formally transferring the management of the WebCT contract to UNLV, and renewing the streaming video contract for GBC and UNLV for one more year.

SCS is hosting an Oracle briefing today to discuss migrating from People Tools 8.51 to 8.53. The three iNtegrate instances are participating in the briefing.

At Wednesday's NSHE Software Licensing Council meeting, SHI, the new Microsoft reseller, will demonstrate the tools provided to NSHE to help manage and utilize the Microsoft contracts.

Client Services – Brian Anzalone (SCS)

Ed Anderson mentioned a couple of projects at the beginning of today's meeting – the wireless upgrade and the SA office move. Our group has some participation on those. In the wireless upgrade where we retired SCS guest, we assisted with the timing of that, trying to avoid Regent meetings, special Regent meetings, etc. We assisted with the communication of that to the SA units and then on-site support to assist in the transfer.

The SA office move is obviously a ways in the future, but we're going to be tasked with moving the work stations, equipment, office peripheral equipment, and those kinds of things. So were doing preliminary planning for that.

In March and April, we conducted Google Aps and Office training. We did a total of about 16 classes and reached about 120 people total for the SA units, half in the North and half in the South. We are conducting some remote training this afternoon for the Elko folks and a couple of people who couldn't make any of the other events. The trainings have been received very well, and we'll probably start repeating the trainings in a few months to keep people up-to-date with aps available through Google and changes to Microsoft Office.

May 1 marked one year of KACE Service Desk for us. We've been using the imaging and deployment tools for longer than that, but we started using KACE to track service requests and incidents on May 1, 2012. In that time, we've processed 8,600 true tickets, not including spam, things that were deleted, or duplicates that were removed. It averages to about 35 tickets per business day. Obviously, it's not the only way work is tracked at SCS, but it's one of the key ways that customers get us incident and service request information. We had 1,200 tickets for video conferencing and scheduling from May 1, 2012 through May 1, 2013.

System Security – Paul Mudgett (SCS)

Grant Thornton's IT auditors were in Las Vegas last week completing their field work there. They met with UNLV and CSN. They'll be in Reno next week for the entire week meeting with SCS staff in regards to the Shared Instance, and with UNR. The document request went out to all the institutions that are in scope for this audit. UNLV and UNR are providing that directly to the consultants, and CSN is providing it through me. That's the IT control surrounding the more general financial audit. Just like last year, they'll provide their findings, and we'll be able to give management responses for whatever findings they have.

We will again be looking at reviewing the firewall rules. I will be contacting institutions to verify and confirm some rules that are set up between our system and yours, just to make sure we don't have any stale rules and that things haven't changed. We'll be cleaning that up and making sure things are appropriately open or closed. Expect to be hearing from me about this soon.

New Technologies – All

None offered.

Operational Issues/Events – All

SCS North Data Center Temperature Issue – Ed Anderson (SCS)
On April 28, Sunday, at about 12:30am, there was a temporary air compressor that had been installed by UNR Facilities in our basement. It was plugged into an outlet that happened to be connected to the AC controls and cooling control modules. The compressor tripped the breaker and from then on the building started to heat up. Unfortunately, we didn't know what was going on immediately. By about 3:30am or 4:30am, the room temperature started getting hot enough that equipment was going in and out of operation. We were getting heat alarms off the equipment itself as well as other kinds of errors, TSM errors, etc. that weren't really telling us what the problem was. Fortunately, we had a couple of people working at SCS north doing other work and they walked through the room and noticed that it was hot. Immediately, they called UNR Facilities, and they responded within about an hour. There was a time delay between when the event actually happened and the heat built up enough to get some meaningful information. (We have heat alarms off our individual racks, but we are investigating if there is a specific ambient temperature alarm)

Immediately, the doors were opened, the fans turned on. Every mechanism we had at our disposal to get the heat down was utilized. IBM was called to see if there were any disc or SAN issues associated with the heat.

The actual outages, with devices going in and out started happening about 6:00am. It wasn't until about 2:45pm that everything was completely stabilized. We have a lot of questions that will need answers such as: When was this temporary compressor installed? How long has it been there? Who plugged it into the control circuit that is connected to the AC controls? Why did it take so long to address a heat problem? These are all issues that we have requested additional information from UNR Facilities about. As soon as the information is in and we've got the information requested from UNR and others back in, we will create a formal root cause analysis, and come up with ways to mitigate the situation and make sure it doesn't happen again. A report will be generated.

Fortunately, the things we had put in place like the external monitoring from Cenic and the OpsGenie did their job and started calling people. The OpsGenie sent emails and did

leave a couple of messages, but not in the right place. Cenic responded, not to the initial event, but because the IPs they monitor were fluctuating – but this was 4 or 5 hours after the initial event started.

It's hard to know if the life of the equipment has been jeopardized in any fashion, but we did lose a card in the XMR, which is the primary feed to UNR and the DC 10 gig link to Cenic. They all had redundant coverage, so nobody was out because of it.

UNR Outage on June 1
June 1, UNR has a large scheduled power outage for 10 hours. SCS will not be affected but about 80% of the UNR campus will go dark beginning at 7:00am.

Other

None offered.