

September 4, 2012  
Connectivity Committee Meeting  
**MINUTES**

***Operational Issues/Events***

Note: This item was moved up in the agenda due to the outage that occurred on August 30.

**Power Outage in SCS Reno Data Center** – Ed Anderson, Pam Burns, Ginger Holladay-Houston (SCS)

On August 30 at about 10:00 in the morning, UNR Facilities personnel were doing some testing of the fire system in the SCS Data Center building and inadvertently hit a trip device that tripped the AC power to the northern data center. Because the fire protection system thought that there was a data center fire, transfer to auxiliary generator power was blocked and the entire northern data center went dark. The outage started at about 10:00am on Thursday, August 30.

UNR Facilities personnel tried to reset the trip device, but there were some problems with doing that and it took about an hour and a half for them to get the power reset. When the power was reset, there were three stages related to service restoration.

First, then the network equipment came up, on its own for the most part, as quickly as various bootup cycles could be completed. Network restoration occurred at about 11:30 am. Then the second stage began where the Systems group brought up the servers and storage.

The first thing the Systems group did, was to make sure that everything was really powered off, so we could bring the system back up in an organized fashion. The disk was the first thing that had to come up and SCS had the IBM customer engineers come in to make sure that things (especially on the disk) came up correctly. They did find some disk errors, which were expected, though not as many as expected. They also had to run some diagnostics. Originally, we thought it would come back up pretty fast, but it took about an hour and a half by the time we got the disk back on line, and then we started bringing the servers back on line. We then checked each of the LPARS. We brought production up first and left everything else down while we made sure production was up. Next, we brought the mainframe back up. The one up here

is just the DR machine, so there were no production processes running on that other than at night we do PPRC. So we moved data from the southern system as a backup to the northern system; so that function didn't start happening again until around 5:00pm. From there, we turned everything over to Applications group for production application restoration..

The data bases all came up pretty easily as did the campus solutions part of the Shared Instance – iNtegrate. Administrative workers were on pretty quickly after that. We brought Portal up after that and students were able to get in, but administrators were not able to use the Portal. It turned out there was a setting on the load balancer that didn't come up correctly. At 8:30am Friday, that was finally discovered and turned back to the proper setting. Students were back on at 5:00pm Thursday, but administrator access via the Portal was down until Friday morning. We concentrated on production first, and then test, and we still have some development environments that we're still just bringing up. More than just iNtegrate that was down.

There was a question asked about whether the settings were checked in the South Data Center – the load balancer – and how long it took to get the power switch back on – just in case it happens down there some time. Ed Anderson responded that we haven't done anything yet, but we will be investigating it. Pam Burns added that from a hardware perspective, it would take the same amount of time. We would still run the diagnostics on the disk before we brought anything else up.

There was another question asked about whether SCS has any control over when the fire system testing happens – especially since the first week of class is not a good choice. Ed said that we will be evaluating those processes and the testing requirements.

### ***Network Services*** – Ed Anderson (SCS)

SCS/Network Services has been pushing hard to get our scheduled network upgrades completed prior to the beginning of the semester, and to make sure that everything was up and running correctly and stable at least for the first couple of weeks of classes. We are now in a period where we are taking a hands off approach if we can to minimize potential disruption to production systems during this heavy load period.

We do have our normal ongoing work of adds, moves, and changes – video rooms and smaller projects. But as far as big projects, we are in a short lull and planning the next wave of upgrades.

### ***Systems Support Services*** – Pam Burns (SCS)

The Systems group also gears up for the first day of classes and don't touch things during heavy load periods. We are now planning some of the bigger projects we need to handle over the next several months. System performance over peak registration Monday and Tuesday remained good with only slight spikes in system capacity usage. In some cases Capacity on Demand was implemented. Extra processors were turned on for the Shared Instance and for UNR. UNLV did not turn on extra capacity.

For UNLV, what we saw from a Systems perspective is that during the major peak between 9:00am and 1:00pm on Monday, UNLV was sitting right at capacity limits, but there were no reports of slowdowns.

Same thing for UNR, we did turn on the extra capacity, and we saw that they pretty much used the initial capacity that was there and had a few spikes that went over that. There were no reports of slowdowns or problems from UNR. For Shared Instance, we turned on a lot of capacity and had a few major spikes, but it was well below what we normally plan for. There were a tremendous number of transactions across the board for all three instances.

### ***Data Center Operations*** – Robert Prior (SCS)

Last meeting, Richard Ayala mentioned that UNLV was considering adding more WebCampus equipment to our data center, and that project is moving forward quickly. A total of 12 racks will be installed. The same number will also be removed, so we will stay at a total of 16 racks. What we are trying to do with this is to facilitate better orientation within the data center, changing the rack alignment to a North/South orientation so that we have better hot/cold aisle containment. Installation of cable trays should start next week. Our goal is to make this a showcase of how we want to do things going forward in the future, so we're taking a lot of extra steps to handle things as far as how power is put in, cable management, etc.

(Russell Gelinias from UNLV added that SCS is playing a strategic role for them in this. They have their own local data center as well and will be deploying both WebCampus and their Domino Notes infrastructure across those two data centers. The current configuration is not the most optimal use of the space, and they are looking to leverage the need for redeploying WebCampus and Domino Notes and other systems going forward to put some resources toward infrastructure in SCS.

A quick update on KACE; Self-Serve rolled out on August 9 and has been well received. In the 11 days following its rollout, SCS processed 68 tickets on Shared Instance, 13 generated by our own staff, but 30 were created by the customers or 45% of the total, and 25 were generated by the Service Desk from emails or calls. If you remove SCS from the equation, about 55% came in via the Self-Serve forum. We are going to continue to roll this out to a wider customer base in the coming weeks.

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

With the start of classes, we've seen a spike again in copyright infringement. So you will see notifications that come from us. Just make sure that they are followed up on based on your campus guidelines. The Higher Education Opportunity Act requires that we take preventative action and action on any type of infringement notifications. That's a federal mandate.

### ***Enterprise Licensing and Contracts***

Chris Gaub was not available to give an update this month.

### ***Client Services***

No update for this month.

### ***New Technologies***

Bill Dipple from DRI said that his 10 gig firewalls are up. Now that the boxes are up, and the optical components are in, he is just waiting for a Brocade upgrade to be able to offload it into his campus.

Shawn Franklin from UNR said that they are learning quite a bit about their new firewalls. They've designed a security committee to work on it, because there are so many decisions to be made around so many parts of it. They monitor it frequently and it's doing its job – averaging around 400,000 hits a day. They currently have samplings turned on of each one of its feature sets. Once it is fully turned on, it'll be very informative, and it's providing a lot of information already.

### *Other Operational Issues*

#### **Fiber outage on September 16** – Greg Ebner (SCS)

Has not yet sent out official notification, but next Sunday (Sept. 16) at 12:01am, Zayo is going to move a pole on Evans to make space for a new lab building for UNR. It will knock down all the fiber east of town for a minimum of two hours. It will affect , everything on the I-80 corridor, and Washoe County School District. Everything at DRI, and everything at TMCC also be affected but will be mitigated by an existing backup wireless connection between TMCC and SCS.

Based on the day of the week and time of day selected for the cut over, there should be minimal user impact. A formal announcement will be sent out as part of the normal change notification process.