Network Update for LONI Management Council

LONI 2.0

- <u>Optical Architecture:</u> Implement Ethernet capability natively into the optical platform able to transmit a single 100G carrier within the same channel space of 10G over our existing Cisco layer 1 optical backbone.
- <u>Router Architecture:</u> Implement 10/40/100G Ethernet routing capability at the same time reducing the number of routers from 45 to 7 as well as offer trade-in value on the existing 45 Cisco routers.
- <u>Optical Vendor:</u> Ciena Systems has been selected as a finalist
- <u>Router Vendor:</u> Juniper Networks has been selected as a finalist
- <u>Events:</u> Next technical community call is October 18, 2013.
- <u>Activities:</u> We began the process to consolidate redundant routers into one to allow us a jumpstart on the trade-in process. Working with Ciena/AT&T to establish professional services contracts to assist with the installation and configuration of the 100G and Ethernet capability to New Orleans. Moved assets in LONI PoP at LSU in preparation for the new equipment.

Network Accomplishments

- <u>Higher-Ed Connections</u>: Added Xavier with redundant 10GE, Moved LONI PoP at McNeese, Upgrade LSU Dorms to 10GE, Upgrade NIMS from 20 to 70Mbps. Added LSU Alumni Hotel and Conference Center at 20Mbps, Added 5Mbps to SLU at LaTech DR.
- <u>LCTCS Connections</u>: Added SunGuard Vlan to FTCC in Schriever, WAN redesign complete statewide.
- <u>Partners</u>: Collaborating with DOTD on a fiber down Nicholson Drive.
- <u>NSF-EPSCoR-C2:</u> Project is complete.
- <u>LONI/DOTD and LONI/Tulane Extension Project:</u> Extension to DOTD is complete awaiting work to be completed by Tulane to call the total project finished.
- <u>NSF CC-NIE (2012):</u> Working to finalize spending authority of this budget in conjunction with LONI 2.0.
- <u>NSF CC-NIE (2013):</u> Including projects two 40Gbps connections to the Science DMZ, NSF CC-NIE (2012) project.
- <u>LA-SiGMA:</u> HD Video equipment will be property tagged then turned over to AT&T for delivery, installation and configuration.
- <u>Fiber Construction:</u> DOTD will be constructing fiber along Nicholson Drive allowing providing an alternative connectivity to downtown Baton Rouge.
- <u>Dark Fiber Leases:</u> Engaged several potential dark fiber providers. Some NDA's have been completed and others are in the process of completion. Continue with collaborate with alternative providers to understand their capability and fee schedules.
- <u>General:</u> Moved our internal documentation to XWiki to allow us to share our data with the participants. Continue to improve our new website as well as establish a social media presence in Facebook and Twitter. Building out a new lab environment at LSU.

<u>Short-term Plans:</u>

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- Nicholls services delayed until October
- Adding MissION back to LONI as a neutral peering
- MPLS WAN Design for SLCC
- MPLS WAN Design for LDCC
- MPLS WAN Design for DCC
- Collaborating with ULM on a fiber construction research project
- Collaborating with specific institutions on cable locate capability on LONI fiber cable
- Upgrading facility capability at LONI PoP at LSUHSC-NO
- Deploying Cloud Video Conference Service
- Add Google Cache to LONI
- Add MDOT to LONI
- Add LSU's InstaGENI rack to LONI
- Add on-demand Internet bandwidth for SLU at LaTech DR
- Add ULM Pharmacy in Monroe to LONI at 1000Mbps new WAN model
- Move and upgrade SUS to 1000Mbps new WAN model
- Move LPB/KLTS to new WAN model
- Upgrade LTC Rod Brady from 1.5 to 3Mbps

Long-term Plans:
- LONI PoP at Venyu in Bossier City at CIC
- Add additional demarc for LSUE
- Add additional demarc for BRCC
- Add NSULA Dorms to LONI
- Add ULM Dorms to LONI
- Add Dillard University to LONI
- Add RIPE Atlas measurement probes to all WAN locations
- Power redundancy at LONI PoP at LSU
- Move LSUS to new WAN model
- Move NSU Nursing in Shreveport to new WAN model
- Add IPv6 to LSUA
- Add WAN Vlan between LSUA and LCRP
- Add IPv6 to Northwestern