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>Events:</u>
- <u>Activities:</u> We have received on 12/19/13 IT-10 approval for our equipment purchases. We are working to create a purchasing requisition to begin the procurement.

Network Accomplishments
- <u>Higher-Ed Connections</u>: Upgraded SUS from 100 to 1000Mbps
- <u>LCTCS Connections</u>: Upgraded LTC Rod Brady from 1.5 to 3Mbps
- <u>Partners</u>: Continue to work with DOTD on utilizing more of their fiber. Added MissION back onto LONI.
- <u>LONI/DOTD and LONI/Tulane Extension Project:</u> Extension to Tulane is complete which allowed us to establish a 10GE service from LSUHCS-NO to Tulane.
- <u>Research Initiatives:</u>
  - <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> We are 90% complete on the HD Room Videoconferencing installation and configuration.
  - <u>GENI:</u> Added LSU's InstaGENI rack to nationwide infrastructure through our connection to Chicago.
  - <u>ULM Doppler Radar:</u> Collaborating with ULM on fiber construction costs and methods.
- <u>Fiber Construction:</u> DOTD has completed fiber construction 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. We held a meeting with OIT and OTM to discuss our delegation of authority request.
- <u>General:</u> Continue to build out a new lab environment at LSU. Launched our Cloud HD Desktop Videoconference service.

<u>Short-term Plans:</u>
- Nicholls services delayed until further notice due to configuration difficulties compounded with access logistics in a CenturyLink facility.
- MPLS WAN Design for SLCC

Network Update for LONI Management Council

- MPLS WAN Design for LDCC
- MPLS WAN Design for DCC
- Collaborating with specific institutions on cable locate capability on LONI fiber cable
- Upgrading facility capability at LONI PoP at LSUHSC-NO
- Add Google Cache to LONI
- Add MDOT to LONI
- Move LPB/KLTS to new WAN model
- Add NSULA Dorms to LONI
- Add ULM Dorms to LONI
-

Long-term Plans:
- LONI PoP at Venyu in Bossier City at CIC
- Add additional demarc for LSUE
- Add additional demarc for BRCC
- 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