

2019-12-19 Network Engineering Team Meeting notes

Date/Time

(Default schedule is second Thursday of Month.)

19 Dec 2019 0700 PT/0800 MST/0900 CT/1000 ET/1200 CLT

Meeting Online Connections

<https://fiu.zoom.us/j/602918755>

Meeting ID: 602 918 755

One tap mobile

+16468769923,,602918755# US (New York)

+16699006833,,602918755# US (San Jose)

Dial by your location

+1 646 876 9923 US (New York)

+1 669 900 6833 US (San Jose)

Meeting ID: 602 918 755

Find your local number: <https://zoom.us/u/acCmuJsGYI>

Join by SIP

602918755@zoomcrc.com

Join by H.323

162.255.37.11 (US West)

162.255.36.11 (US East)

221.122.88.195 (China)

115.114.131.7 (India)

213.19.144.110 (EMEA)

103.122.166.55 (Australia)

209.9.211.110 (Hong Kong)

64.211.144.160 (Brazil)

69.174.57.160 (Canada)

207.226.132.110 (Japan)

Meeting ID: 602 918 755

Meeting Recording:

TBD

Attendees

- [Jeff Kantor](#) (JK) LSST
- [Unknown User \(rlambert\)](#) (RL) LSST
- [Julio Ibarra](#) (JI) FIU/AmLight
- [Unknown User \(kollross\)](#) (MK) NCSA
- [Jeronimo Bezerra](#) (JB) FIU/AmLight
- [Albert Astudillo](#) (AA) REUNA
- [Renata Frez](#) (RZ) RNP/AmLight Brazil
- [Claudia Inostroza](#) (CI) REUNA
- [Paul Wefel](#) (PW) ESnet
- [Kate Robinson](#) (KR) ESnet
- [Gizella Kapus](#) (GK) ESnet
- [Vasilka Chergarova](#) (VCh) FIU/AmLight
- [Phil DeMar](#) (PD) FNAL
- [Vincenzo Capone](#) (VCa) GEANT (absent)
- Aluizio Hazin (RNP)

Guests

- [Stuart McLellan](#) RENATER (absent)
- [Ed Moyrihan](#) NEARR, Global NOC, IU

Goals

- Coordination of networking activities across LSST

Discussion items

Time (PT)	Item	Who	Notes
	NET Action Items Status	Jeff Kantor	Reminder: Work on your action items: International Communications (aka Long-Haul Networks) <u>Documentation updates schedule:</u> August - LSST Joint NSF/DOE Status Review will establish new overall project schedule, commissioning milestones. Observing with ComCam pushed back and shortened, observing with FullCam pushed back. We updated Network Milestones sheet accordingly. COMPLETE (See attachment) September - Created FY20 contract amendments for FIU, REUNA, NCSA. COMPLETE October - Complete LSST Change Request to update LSE-309 Summit - Base ITC Design Document (including Summit and Base networks) and related milestones in PMCS. COMPLETE November/December - (Holidays and other activities.) January - Continue work on LSST Network Verification Plan (including JIRA). Develop draft LSST Operations Network SLAs. See discussion below. Submit LSST Change Request to update LSE-78 LSST Observatory Network Design (including Chilean, International, and US networks) and related milestones in PMCS. Including updated diagrams, including ESnet, etc. Complete work on LSST Network Verification Plan (including JIRA). See discussion below.
	Update on CONUS Networks	Paul Wefel Jeronimo Bezerra	<u>CONUS Networks, including ESnet:</u> Circuit from Florida to NCSA is up, in testing. Capacity from Florida - Atlanta is 100 Gbps on shared circuit, via internet2/ALS, SOX. Also VLAN from Jacksonville - Chicago 100G (same shared port). 2 x 20 Gbps dedicated paths from Atlanta - Chicago in place. Can use 100G ring for Santiago - Sao Paolo, get on Monet to Boca Raton, Boca Raton - Miami, Miami (Jacksonville) - Atlanta, Atlanta - Chicago. All shared in except Sao Paolo Boca Raton Miami and Atlanta - Chicago. Can do ~100G for short bursts, not clear what we can do on sustained basis, can schedule a test (night-time automated). NEW ACTION
	Chilean /International Networks Update	Unknown User (riambrt) Albert Astudillo Jeronimo Bezerra	<u>Developments in La Serena and end-to-end service to NCSA for upcoming Auxiliary Telescope Traffic and general (internet, mail, voice) traffic:</u> REUNA DWDM from La Serena - Santiago 100G upgrade planned first 2 weeks of January. Jeronimo Bezerra will come to Santiago week of January 2 first to do that side, then to LS. Will take back 100G DTN to LS that was mistakenly shipped to Santiago (or REUNA ship it), and install new perfSonar nodes in LS. Will also install new perfSonar machines (if they arrive in time). ATS planned to ship by Christmas, on-sky mid-January. We are ready for start of data transfers. Aluizo Hazin - RNP selected 2 vendors for Santiago - Porto Alegre, in signature process. Implementation expected by April, 2020. Porto - Alegre - Sao Paolo: inside SP is ready, connects to Monet. 2 segments in deployment phase. Installing equipment (long route), expect to have by April.
	NCSA - CC-IN2Pe Networks update	Unknown User (kollros)	<u>NCSA - CC- IN2P3 network:</u> Chicago - Europe default plan going via CANARIE - Amsterdam. Pending DOE operations impacts: What MOUs do we need in place? Is this addition to LSST - IN2P3 MOU? Will this require paying CANARIE?

Other Discussion Topics	By topic	LSST Network Document Update: Julio IbarraJeff Kantor https://docs.google.com/document/d/1ZvpaHwIzHHMuqRXJEornlgQNH_8tP_EfiV6S1SzyonU/edit New version incorporating input from network operators to respond to questions, review document. Identified members of NET need to complete this by one week before next month meeting. Julio Ibarra. EXISTING ACTION ITEM LSST Network Verification: Jeff Kantor LSST Networks needs to be formally verified as ready for LSST System Integration and Commissioning. 2019-07-11 Meeting published a list of requirement to be verified and a diagram of the JIRA test artifacts that must be done. (NOTE: Confluence can't render the JIRA test artifacts attachment, but it is a valid JPG file. Download it to view it.) Also see Network Verification Plan and Matrix, recently updated, on LSST-NET home page. Management wants a network verification readiness review sometime in February - March, need to discuss timing and scope. LSST Network SLAs for Operations: Jeff Kantor FIU flow-down SLAs provided, will use as template for others. LSST doing due diligence on networks for various operations models with DOE paying 50% and NSF paying 50%. Virtual NOC: Jeronimo Bezerra, Unknown User (rlambert), Albert Astudillo, Unknown User (kollross) Vincenzo Capone (See 20191022 NET Meeting and email thread on NET mailing list) Jeff Kantor, Julio Ibarra, Phil DeMar - Meeting with Ed Moynihan, Cory Donovan of Global NOC to discuss requirements and possible involvement. Most/all have the ability to set up additional email addressees for notifications, generally or on specific equipment/links. Making information into common format (IETF draft) is another problem. For example, GEANT will not commit to adopting the IETF standard. Julio Ibarra Already have perfSonar/MadDash working now for FIU nodes. Putting in LS, JCK, already have in SCL, SP, MIA, NCSA, RENATER. NetSAGE has feed of net flow data. There is an integration between NetSage and FIU perfSonar. NetSage may not want additional non-IRNC perfSonar feeds. Event/recovery notifications are operator-specific. NOCs will gather from different sources and can be forwarded to VNOC.
Network Design and End-to-End Test Plan and QoS planning	Jeronimo Bezerra	Need to finish 100G migration in Chile to resume work on this.
Other business	Any	
Wrap up and next meeting	Jeff Kantor	Wrap up and Next meetings: (Schedule for 2020 meetings) 09 Jan 2020 13 Feb 2020 12 Mar 2020 09 Apr 2020 All meetings at 0800 PDT/0900 MST/1000 CDT/1100 EDT/1200 CLT (subject to time changes)

Action items

- ☒ [Unknown User \(rlambert\)](#), [Jeronimo Bezerra](#), [Albert Astudillo](#), [Unknown User \(kollross\)](#), [Paul Wefel](#) Develop plan to start automated, nightly link /bandwidth characterization tests over shared links from LS - NCSA. Tests should start NLT February 2020 (roughly same time as AuxTel data transfers) 09 Jan 2020

