

RNP Update

GLIF Americas 2015



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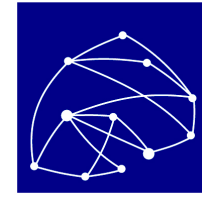
Rede Nacional de Ensino e Pesquisa

Alex Soares de
Moura
alex.moura@rnp.br

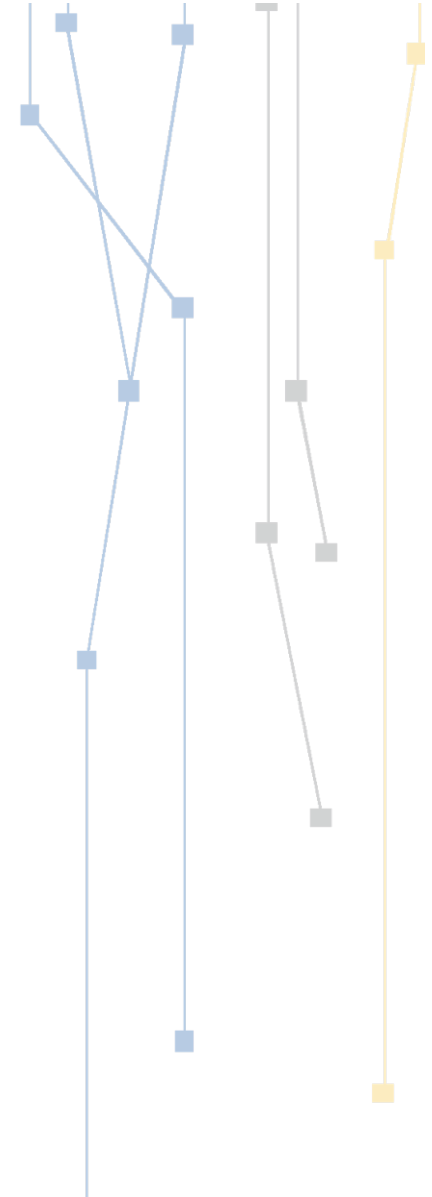
Marcos Felipe Schwarz
marcos.schwarz@rnp.br

GLIF Americas

September 28th 2015, Prague, Czech Republic

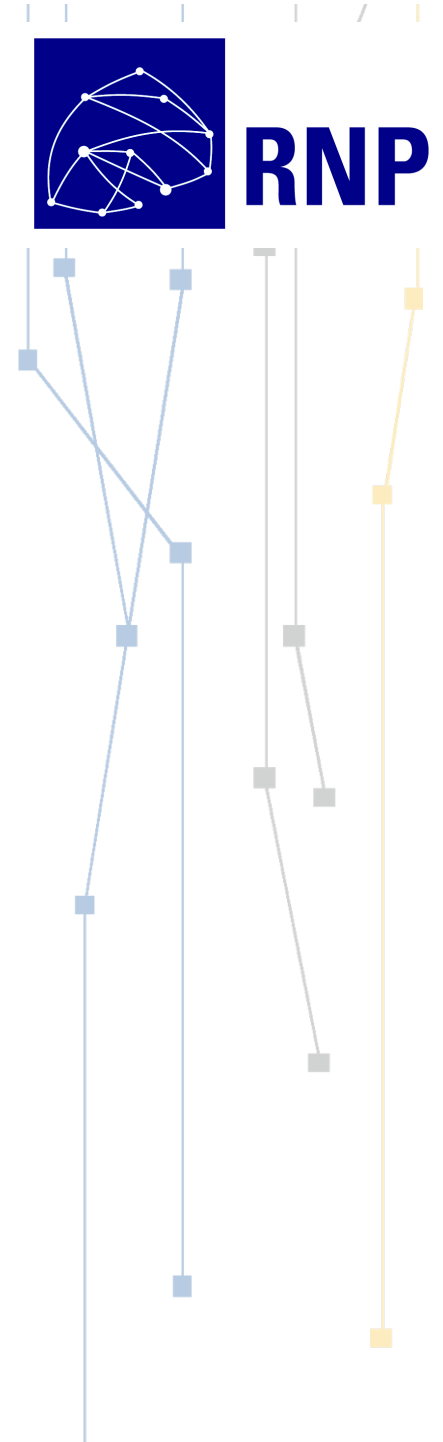


RNP

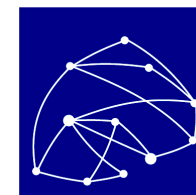


SouthernLight/AutoBAHNNSI Peering Proposal

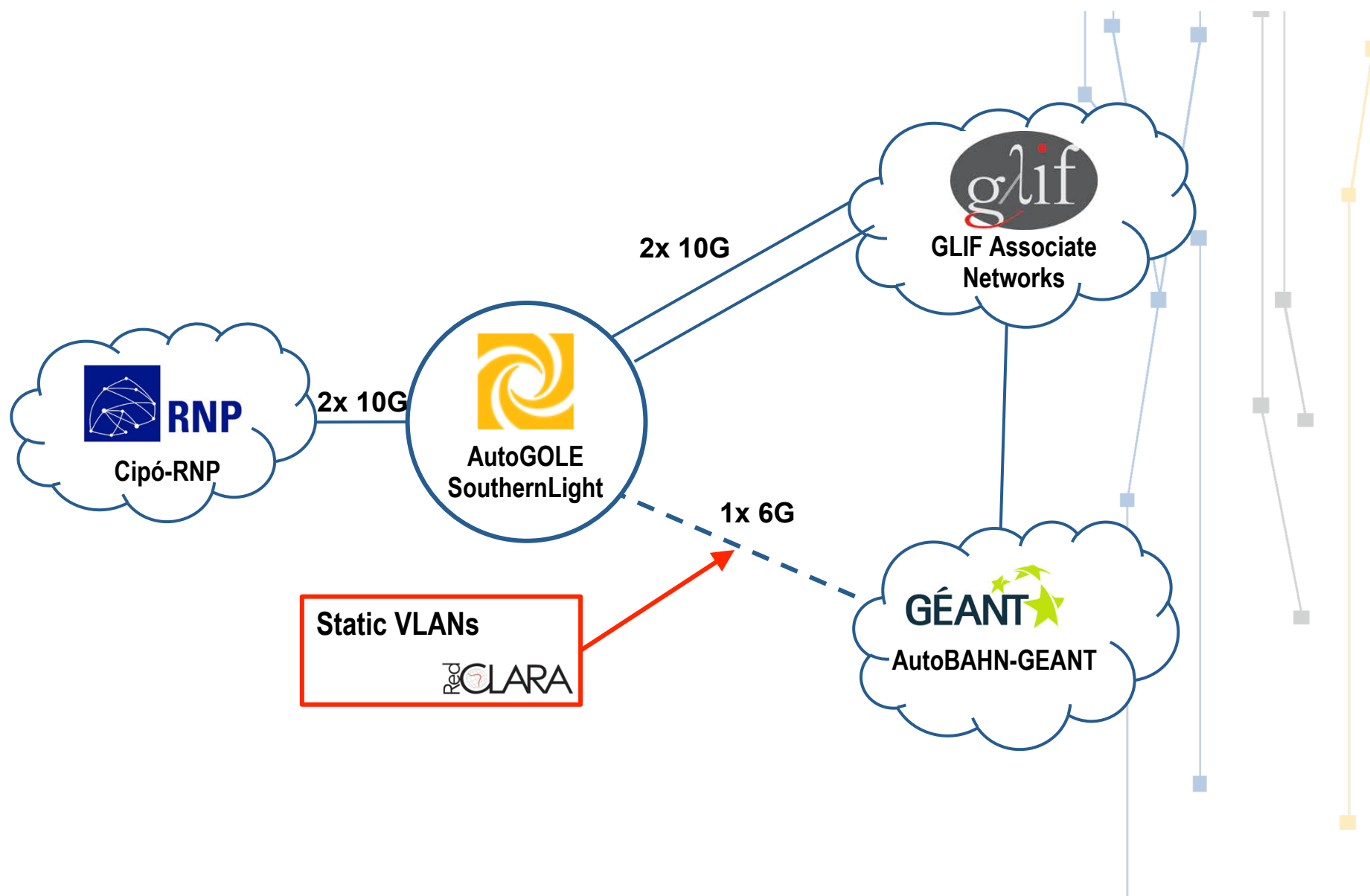
- Static VLANs through RedCLARA



SoutherLight/AutoBAHN NSI Peering



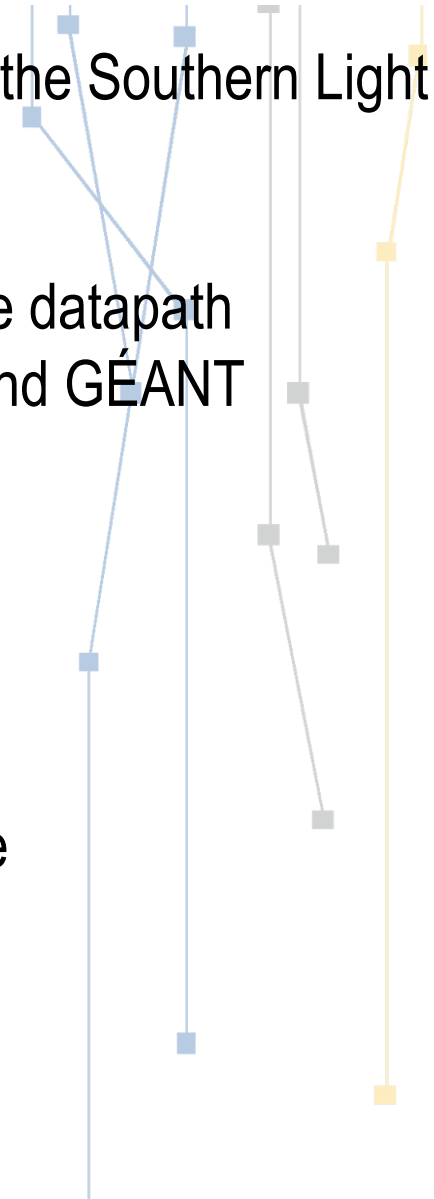
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SoutherLight/AutoBAHN NSI Peering



- Establish a NSI peering between RNP and GEANT using the Southern Light AutoGOLE and GEANT's BoD Service (AutoBAHN)
- Extend a range of 20 VLANs – VIDs 1779 to 1799 - for the datapath between the NSI capable equipments at Southern Light and GEANT AutoGOLE
- Exchange topology details
- Define NSI peering strategy: **direct** or **indirect**
 - ✓ **Direct:** peer **geant.net** to the RNP NSI Aggregate
 - ✓ **Indirect:** peer RNP NSI Aggregate to NetherLight's.



SoutherLight (SOL) AutoGOLE



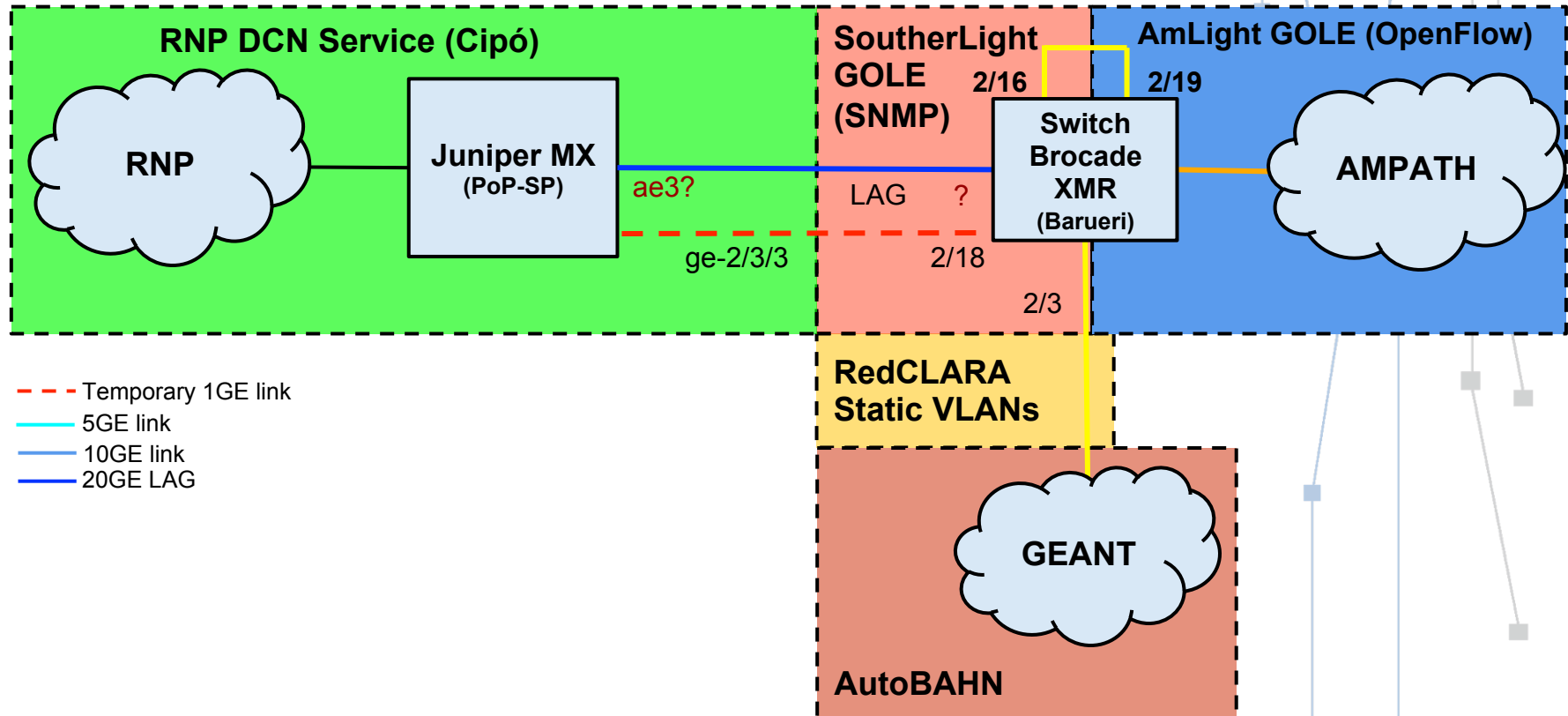
- SouthernLight updated from 1G to 10G and new control of Brocade XMR switch at ANSP using SNMP
- Validation of establishment of multi-domain L2 circuits from RNP's intra-domain DCN service
- ✓ RNP > SOL > AMPATH > iCAIR > Esnet
- ✓ RNP > SOL > AMPATH > iCAIR > NetherLight > SurfNET > UvA.

LHCONE



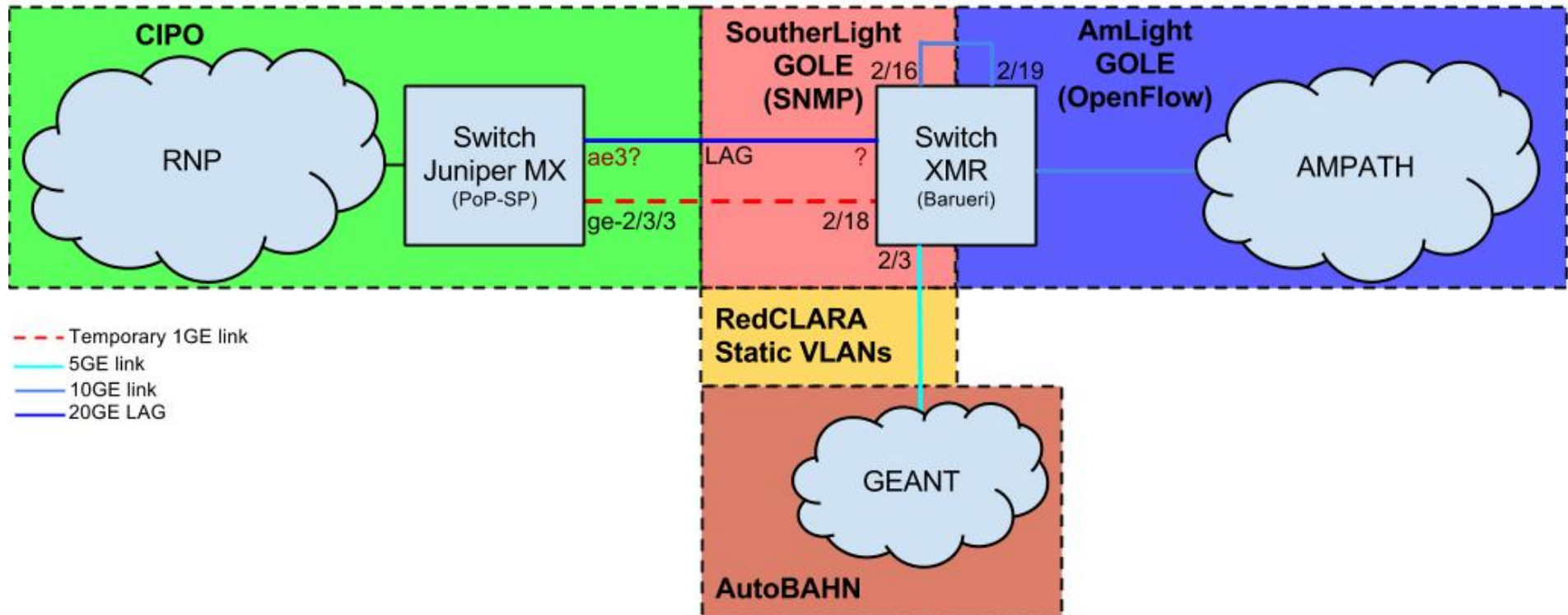
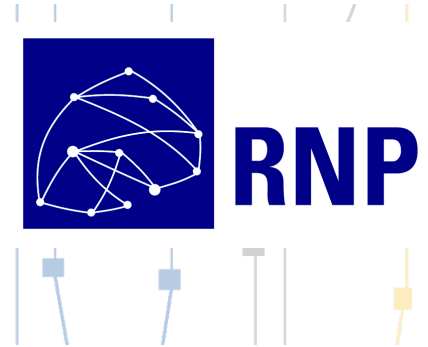
- LHCONE Service is enabled for RNP clients (includes peerings with other Brazilian regional networks – RJ + SP)
- External collaborations to deploy LHCONE in RedeRio, CBPF and HEPGrid
- Connections between CBPF > CERN and SAMPA Site (USP) > CERN are online
- June 22nd: from CBPF to CERN using VRF via RedeRio, RNP and RedCLARA.
- Aug 4th: SAMPA Site (USP) > CERN using VRF via RNP and RedCLARA
- New map of LHCONE including CBPF and SAMPA Site

SouthernLight Topology



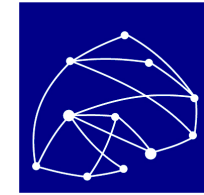
New 10G SouthernLight topology already deployed being tested

SouthernLight Topology



New 10G SouthernLight topology already deployed being tested

Roadmap 2015



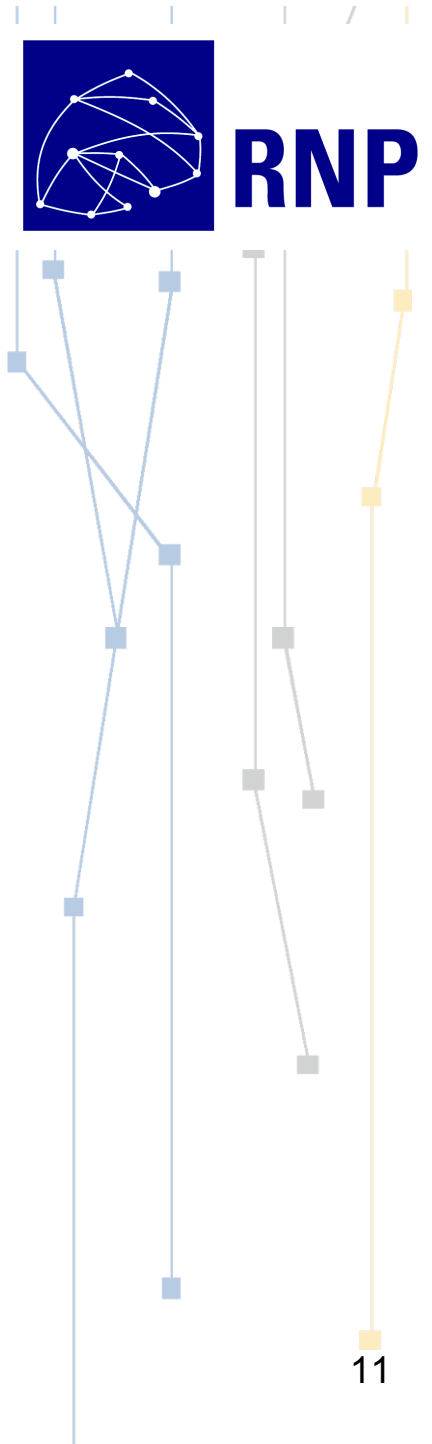
RNP

1. Upgrade and test the SOL GOLE Software (**done**)
2. Peering to be escalable and more permanent (**done**)
 - 2.1. Topology (SOL, AMLIGHT) (**done**)
3. Revise and update of documentation (**done**)
 - 3.1. Revise e improve the Installation Guide - (**done**)
 - 3.2. Revise and improve User Guide (**done**)
4. Prospect new peerings: RedCLARA and GEANT (**in progress**)

Proposal for 2016 Roadmap

1. AutoGOLE SouthernLight SDN (OpenFlow 1.0), with new architecture expansible to 100G

References





Thank you!

Alex Soares de Moura
alex.moura@rnp.br

Brazilian Academic Research and Education Network
Rede Nacional de Ensino e Pesquisa – RNP



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