

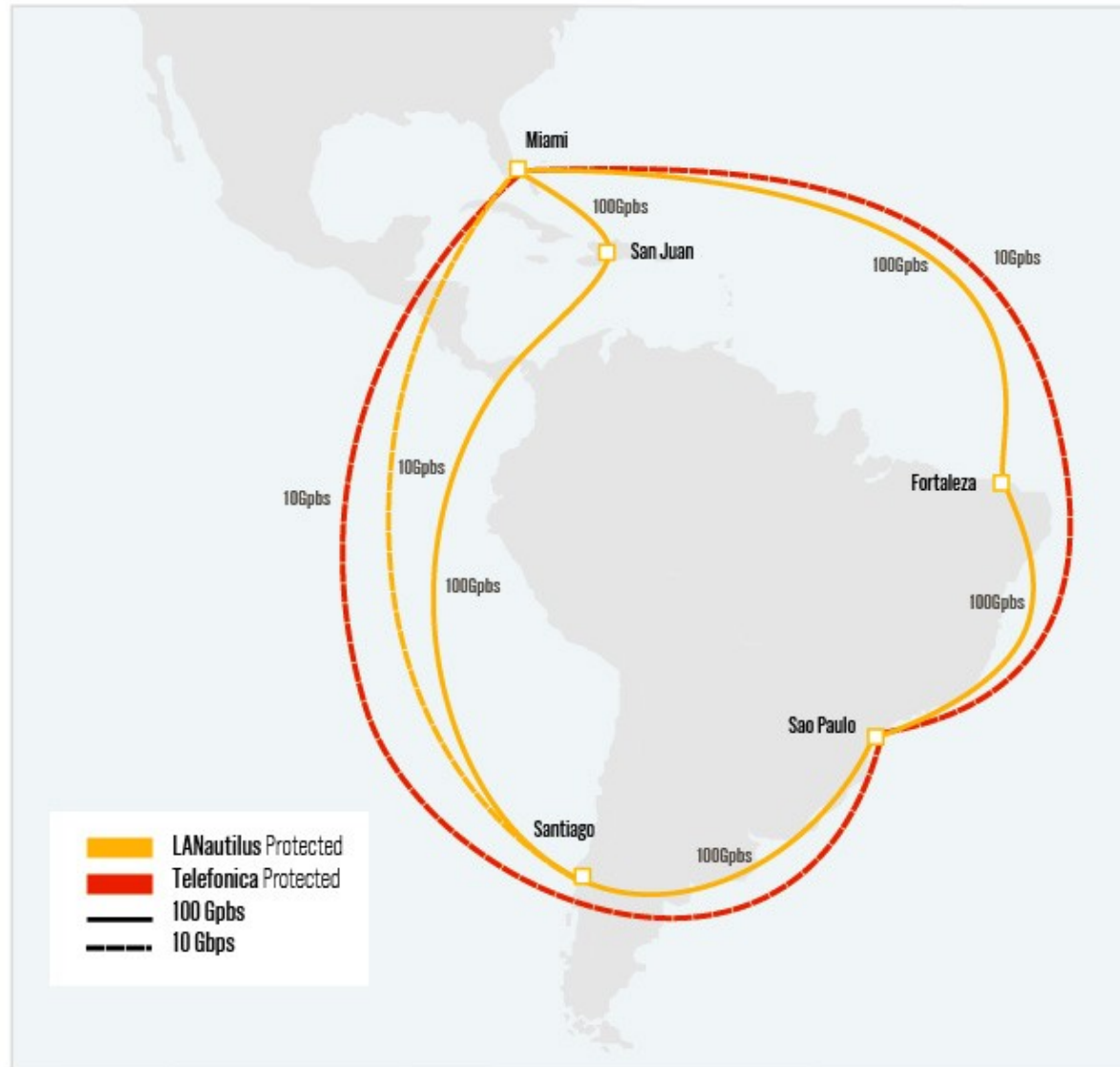


SAACC Meeting

AmLight measurement infrastructure

Santiago
17/04/2019

AmLight Backbone (04/2019)



Currently

- Existents nodes:
 - Miami, São Paulo, Santiago, La Serena
- Nodes being deployed:
 - Panamá (in partnership with CLARA)
- Softwares in use:
 - Perfsonar-centralmanagement (archive, visualization)
 - PWA (web tool to manage all the tests)
 - Perfsonar-testpoint
- Approach:
 - Tests run in a point to point fashion (it's possible to get information regarding every single link)

Measurement Topology



Americas Lightpaths Express & Protect

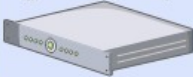
AmLight perfSONAR Infrastructure
March 2019

Central Services (Miami)

MA/Maddash
(ma.ampath.net)



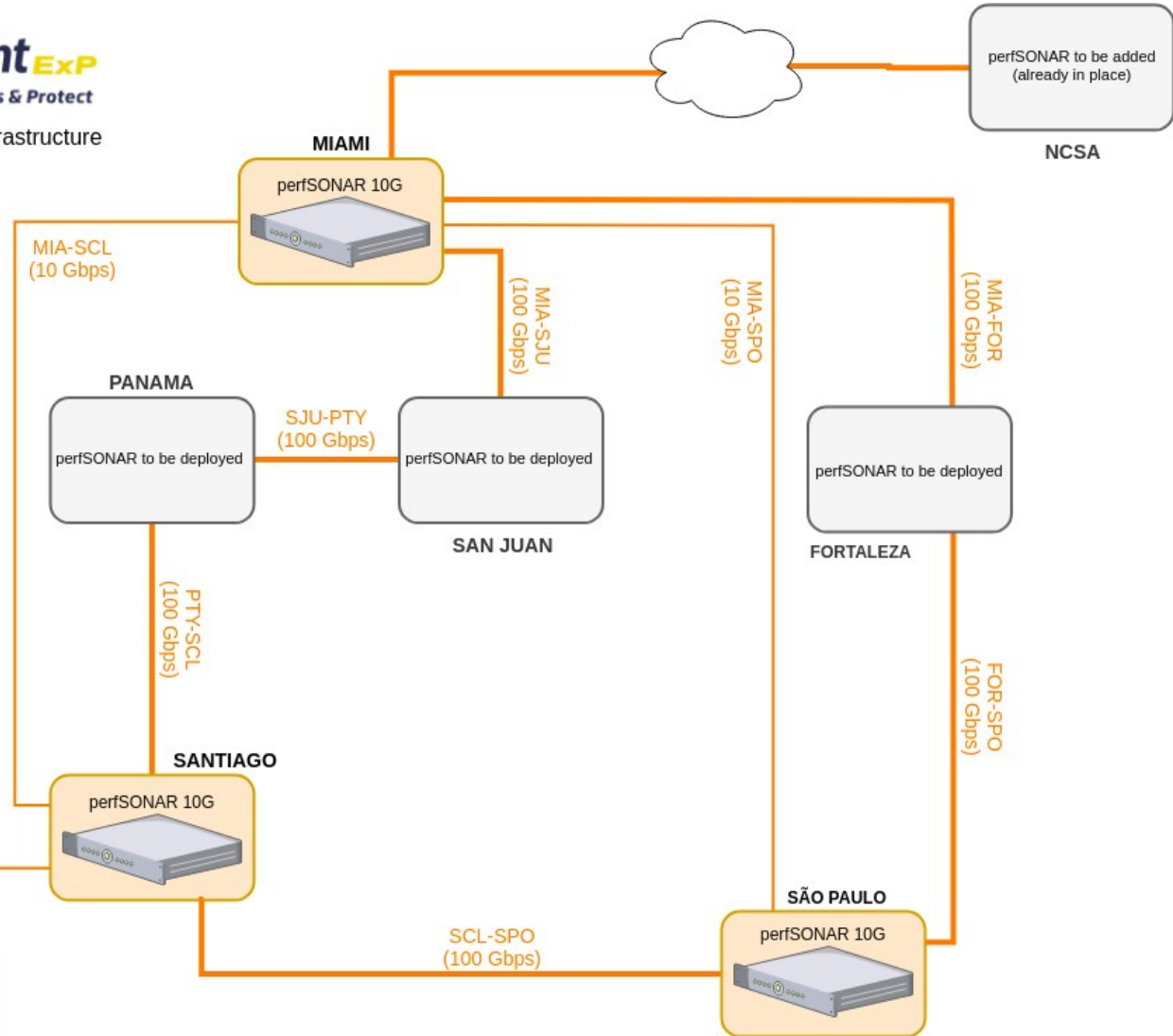
PWA
(pwa.ampath.net)



perfSONAR 10G



La Serena (LSST)



Tests specifications

- **OWAMP**
 - Metrics:
 - One-way loss
 - One-way delay
- **Latency (RTT)**
- **Bandwidth**

Visualization

URL: <https://dashboard.ampath.net>

☰ Dashboards ☰ Reports ⚙ Settings

LSST: Santiago to La Serena Dashboard

LSST: Santiago to La Serena - BW: Santiago - La Serena (10 Gbps) - Throughput

■ Throughput >= 1Gbps ■ Throughput < 1Gbps ■ Throughput <= .5Gbps ■ Unable to find test data ■ Check has not run yet

✔ No problems found in grid



LSST: Santiago to La Serena - Latency: Santiago - La Serena - Loss

■ Loss rate is <= 0.001% ■ Loss rate is > 0.001% ■ Loss rate is >= 0.1% ■ Unable to find test data ■ Check has not run yet

✔ No problems found in grid



Visualization: loss

perfSONAR test results - [documentation](#)

[Share/open in new window](#)

Source 10.7.9.1 Host info ▾	Destination 10.7.9.2 Host info ▾	Report range ← 1 week → Fri 04/05/2019 14:09:51 (GMT-3) to Fri 04/12/2019 14:09:51 (GMT-3)
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Tput (TCP)	Tput (UDP)	Loss (UDP)	Loss (one way)	Loss (rtt)	Retrans	Latency (one way)	Latency (rtt)	Forward	Reverse	Failures
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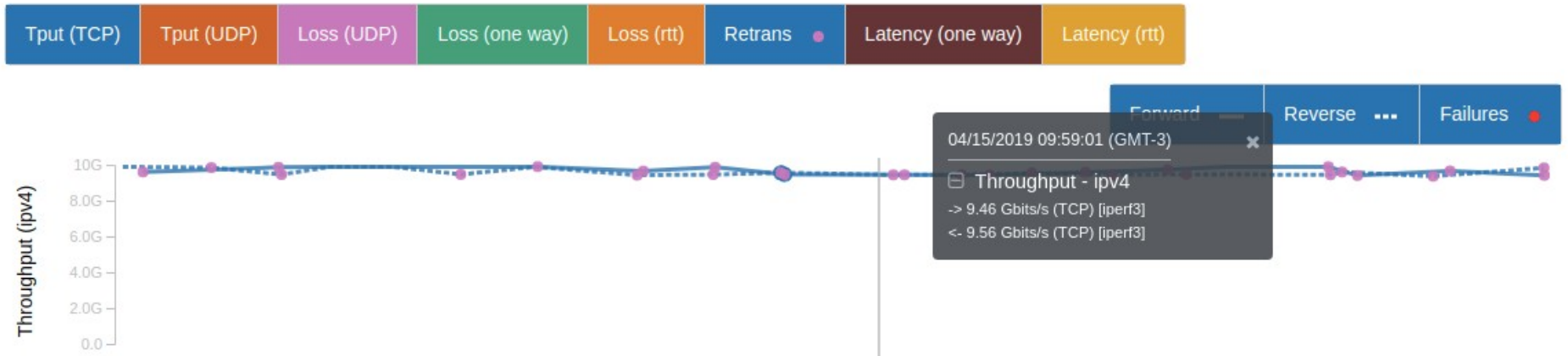


Visualization: bandwidth

Source
10.7.18.1
[Host info](#) ▾

Destination
10.7.18.2
[Host info](#) ▾

Report range
← 3 days ▾ →
Sat 04/13/2019 19:57:46 (GMT-3) to Tue 04/16/2019 19:57:46 (GMT-3)



NetSage and AmLight measurements

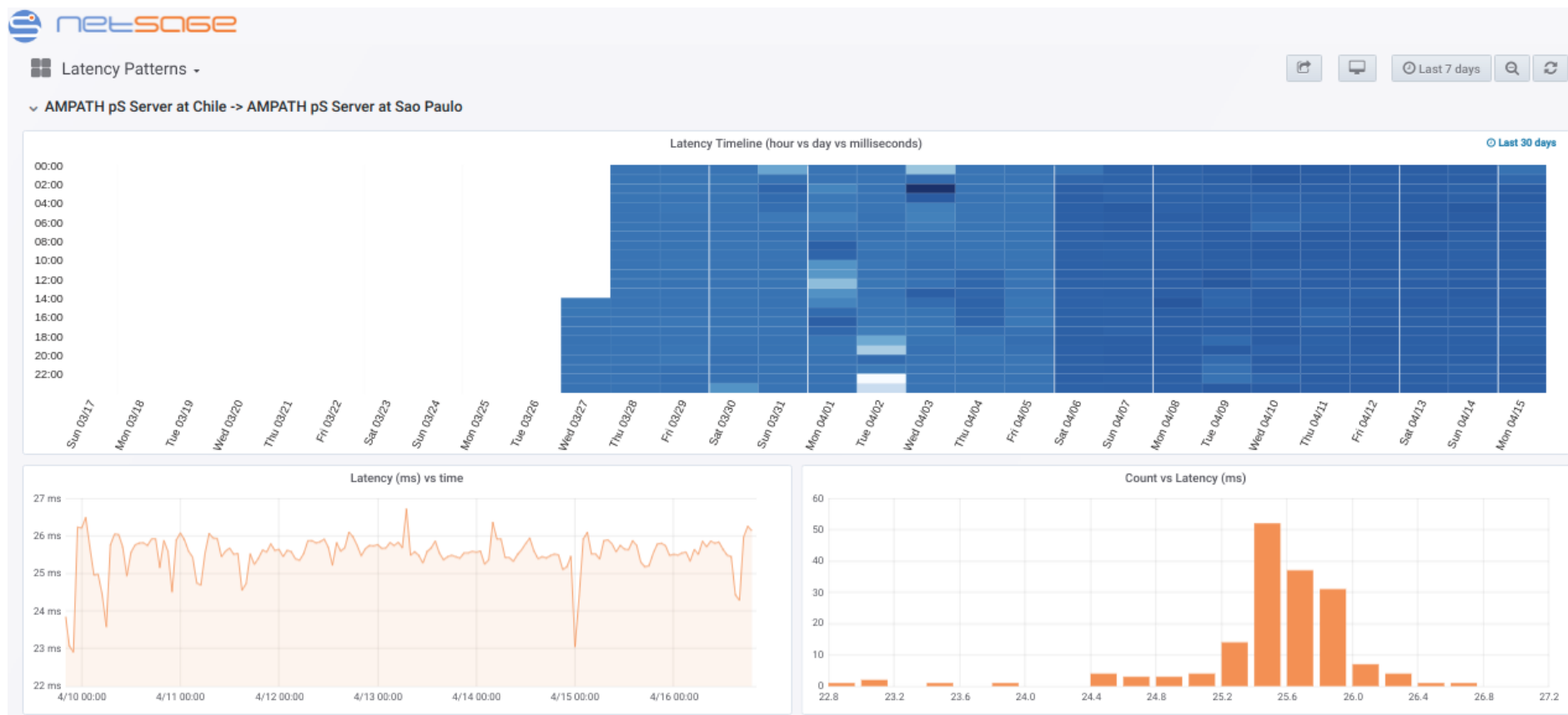
NetSage retrieves data from AmLight perfSONAR infrastructure and print them on its portal:

<https://portal.netsage.global/grafana/d/000000005/latency-patterns>

This is an excellent way to visualize tests results, since the interface is friendly.

NetSage and AmLight measurements

Latency:



NetSage and AmLight measurements

Bandwidth usage:





Thank you!

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