

Introduction to SAACC

A map of the Americas with glowing lightpaths connecting major cities. The cities shown are Los Angeles, New York, Miami, Panama, Santiago, Sao Paulo, and Lima. The lightpaths are represented by glowing white lines and arcs connecting these cities across the continent.

**South American Astronomy Coordination Committee (SAACC)
Meeting
April 17, 2019**

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Principal Investigator
Florida International University

Overview: AmLight Express & Protect Vision



- Community-operated network infrastructure
- Leased capacity on two submarine cable systems, evolving to a hybrid model that includes spectrum from Boca Raton to Sao Paulo
- Express (spectrum) capacity will provide up to 6 optical channels, which will be lit with 100G transponders today
- Protect (leased) capacity 100G ring will back up the Express capacity

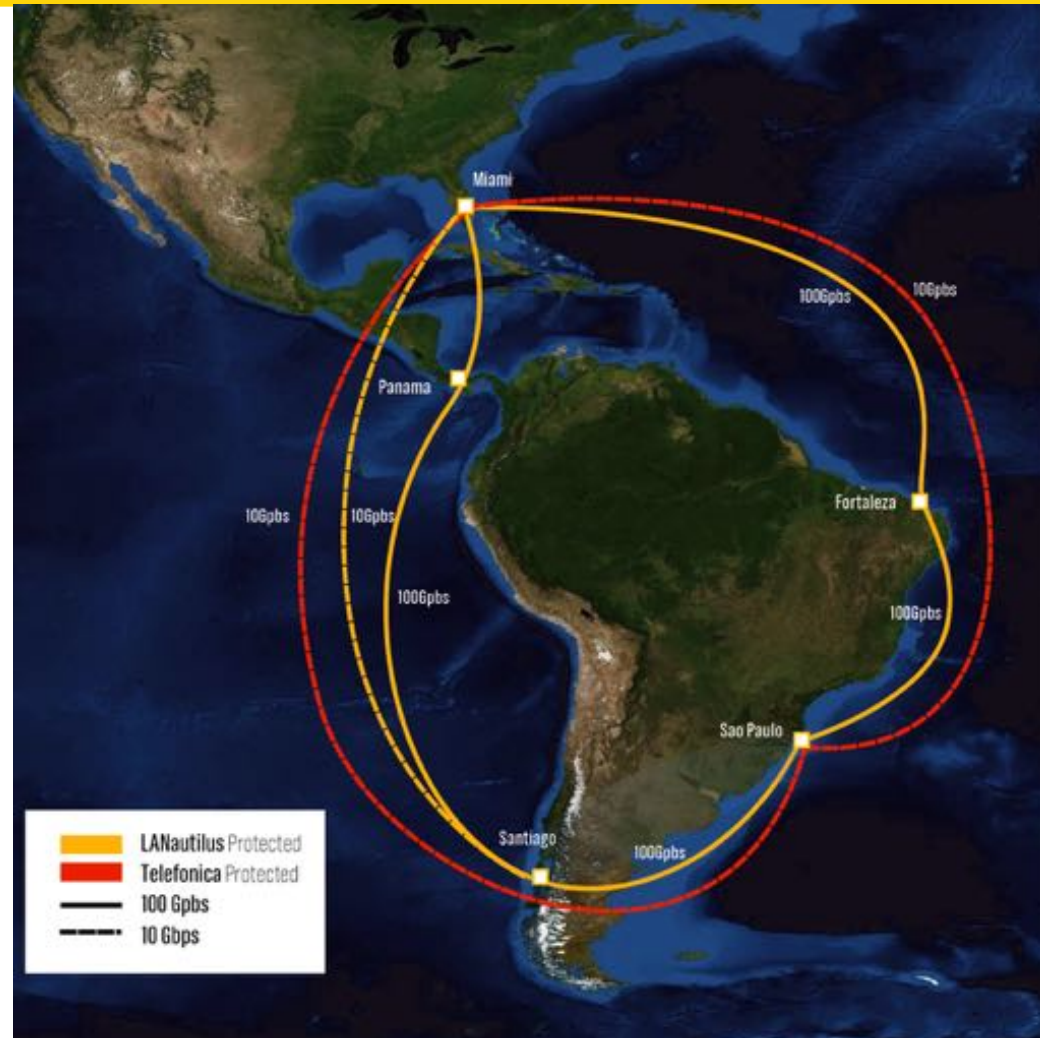
Partners and Goals

- AmLight-Exp interconnects the U.S. to key aggregation points in South and Central America (Brazil, Chile, Panama)
- 5-year Cooperative Agreement with the U.S. National Science Foundation
- Cooperative and collaborative partnerships with ANSP, RNP, CLARA, REUNA, AURA, FLR, and Internet2
- Continue evolving a rational network infrastructure using both optical spectrum and leased capacity



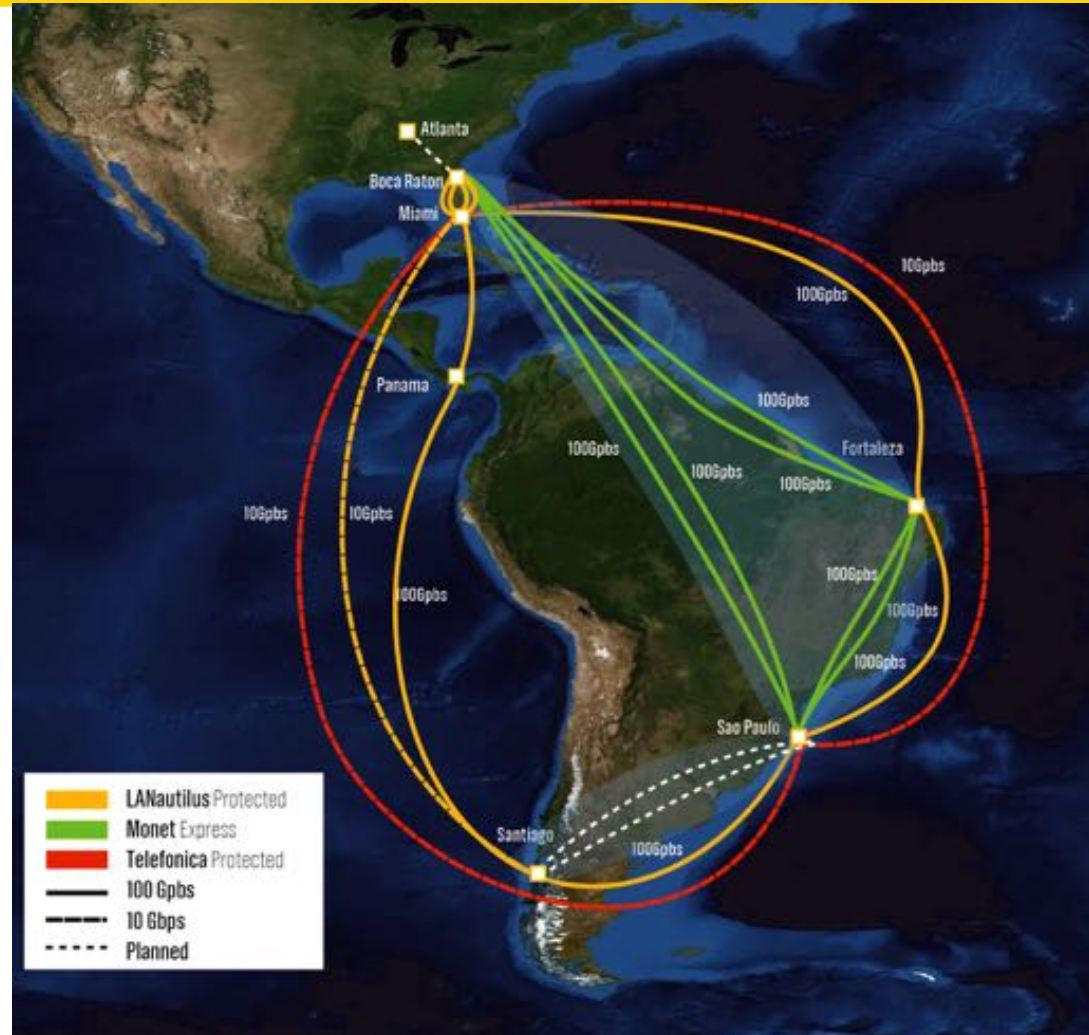
Current Status: Regional Network Infrastructure

- 100G ring Miami-Fortaleza, Fortaleza-Sao Paulo, Sao Paulo-Santiago, Santiago-Panama City, Panama City-Miami
- 10G ring from Miami-Sao Paulo-Miami for protection (red)
- 10G Miami-Santiago for protection
- 100G and 10G rings are diverse, operating on multiple submarine cables
- Total upstream capacity presently at 230Gbps



Planned Activities in 2019: Building Express backbone, and enhancing resilience on AmLight

- Increasing AmLight network resilience and capacity
 - Activate Express:
 - Boca Raton, Fortaleza, Sao Paulo
 - 6 (green lines) x 100G links
 - 4 managed by RNP
 - 2 managed by FIU/ANSP/LSST
- Total upstream capacity will be 630Gbps (Express + Protect)
- Expanding AmLight network
 - Add PoPs in Jacksonville and Boca Raton



About SAACC

- SAACC is the South American Astronomy Coordination Committee
- SAACC is in its 8th year!
- SAACC is comprised of representatives from the various
 - Astronomy projects operating observatories in South America
 - The AmLight project, and operators of the research and education networks in South America
- Dr. Jeff Kantor, ~~Head of Mission for AURA Observatory in Chile~~, is the chair of the SAACC
- SAACC Goals
 - To provide input and advice to the AmLight Principal Investigator on program and network needs
 - To serve as a venue for coordinating the network needs of astronomical projects and institutions
 - to improve their resource planning and implementation of operational connections between these distant facilities and users in the continental US

Thank You!

- REUNA for hosting the SAACC and LSST NET meetings
- Program Committee:
 - Jeff Kantor, Paola Arellano, Albert Astudillo, Heidi Morgan, Vasilka Chergarova
 - Special thanks to Vasilka for building the websites and coordinating many details
- Cerro Calán, Observatorio Astronómico Nacional for providing the facility for the meeting

Logistics

- Agenda is online at
 - <https://www.amlight.net/?p=3112>
 - Please be respectful of presentation time limits
- Uploading presentations
 - URL: dropbox.com
 - user: saacc2014@gmail.com
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