

AMPATH - AtlanticWave Update

**GLIF Americas Community Meeting
12th Annual Global LambdaGrid Workshop
October 10, 2012**

**Julio Ibarra, FIU
Heidi Alvarez, FIU
Chip Cox, FIU
Jim Dolgonas, CENIC**

AMPATH International Exchange Point



- AMPATH, located in the NAP of the Americas in Miami, Florida, serves network-enabled U.S.-Latin America and Caribbean science research and education communities
- Provides wide bandwidth network services for U.S. and international research and education networks
- Extends participation to underrepresented groups in Latin America and the Caribbean
- Operates as a major research facility recognized by the U.S. NSF, supporting international e-science



AMPATH 2013

- Enhancing switch fabric cluster
 - Eliminating all single points of failure, and
 - Creating a scalable and robust switch fabric environment
- Increasing switch fabric capacity in order to support additional 10G connections from AmLight collaborators
- Implementing Multi-Chassis Trunk (MCT) to support transparent link aggregation



AtlanticWave: International Transit Backbone From New York to Sao Paulo

- AtlanticWave is a distributed exchange point peering service along the Atlantic rim
- AtlanticWave facilitates exchange and peering services between U.S. and international networks interconnected at the following key exchange points on the U.S. East Coast:
 - MANLAN in NYC
 - MAX Gigapop and NGIX-East in Washington, DC
 - SoX Gigapop in Atlanta
 - AMPATH in Miami
 - SouthernLight in Sao Paulo
- Partners include SURA, FIU-AMPATH, IEEAF, FLR, MAX, SLR/SoX, Internet2/MANLAN, Rede Nacional de Ensino e Pesquisa (RNP), and Academic Network of Sao Paulo (ANSP)
- Persistent Layer2 service to support international transit and options to peer from multiple exchange points
- Simple (low overhead) use and peering policy

AtlanticWave 2013

- Establishing a new 5-year project
- Coherent Infrastructure linking IRNC ProNet's: Amlight, GLORIAD, and ACE
- New design with roadmap to 100G
- Support for advanced network services, including dynamic bandwidth provisioning and SDN/Openflow
- Developing in full collaboration with SURA, Internet2/MANLAN, University of Maryland/MaX, Southern Light Rail/SoX, CLARA, FIU/AMPATH, ANSP, RNP and NLR

Thank You!

julio@fiu.edu
heidi@fiu.edu
chip@fiu.edu
jdolgonas@cenic.org