Americas Lightpaths (AmLight)

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Julio Ibarra, PI
Donald "Chip" Cox, Co-PI
Heidi Alvarez, Co-PI
Center for Internet Augmented Research & Assessment
Florida International University

About AmLight

- AmLight is an NSF IRNC Production Network (ProNet) award for USA-Latin America science & engineering research and education, OCI-0963053

- AmLight aims to enhance science research and education in the Americas
  - Interconnecting key points of aggregation
  - Providing operation of production infrastructure
  - Engaging U.S. and western hemisphere science and engineering research and education communities
  - Creating an open instrument for collaboration
  - Maximizing benefits of all investors

http://www.amlight.net/

AmLight Collaborating Partners

- AmLight is made possible through the ongoing support of our collaborating partners
  - Academic Network of Sao Paulo (ANSP-FAPESP)
  - Association of Universities for Research in Astronomy (AURA)Rede Nacional de Ensino e Pesquisa (RNP)
  - Corporation for Education Network Initiatives in California (CENIC)
  - Lonestar Education and Research Network (LEARN)
  - Cooperación Latino Americana de Redes Avanzadas (CLARA)
  - Red Universitaria Nacional (REUNA)
  - Corporación Universitaria para el Desarrollo de Internet (CUDI)

- ## AMLIGHT East:
  - ### Miami-Sao Paulo
    - 2 x 10G connections
- ## AMLIGHT West:
  - ### Tijuana-Los Angeles
    - 1x10G connection
- ## AMLIGHT Andes:
  - ### Santiago-Miami
    - 1G connection
- ## AMLIGHT Central:
  - ### San Antonio-Mexico City:
    - 1G connection

More Slides Follow

Hybrid Network Services

- OSCARS IDC implemented on AmLight East
    - Collaboration with DYNES and DyGIR projects, RNP, FLR and Internet2
- Dynamic circuit provisioning capability between RNP, AMPATH and Internet2 ION
- Demonstrated dynamic provisioning at GLIF

OpenFlow/SDN Activities

- Network virtualization technology
- Deploying OpenFlow on AmLight
  - Coordinating with Internet2, Indiana University, GENI, RNP and ANSP
- Connecting OpenFlow projects via AmLight to GENI and NDDI networks

Monitoring of Hybrid Network Services

- Deploying passive monitor at AMPATH
  - Data Collection and Analysis servers ordered
  - DAG cards ordered

- Adaptin passive monitor for AmLight operations environment
  - Monitoring and reporting hybrid network flows
  - Adding support for OpenFlow