



# AARCLight

Americas Africa Research and eduCation  
Lightpaths

GLIF Americas Working Group

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# **AARCLight: Americas Africa Research and eduCation Lightpaths, Award #ACI-1638990**

- Aims to define a strategy for research and education network connectivity between the US and West Africa
- Aims to coordinate planning efforts among stakeholders in the U.S., Africa, and Brazil
- Aims to create economies of scale
  - making use of the offered spectrum
  - towards serving the broadest communities of interest in research and education

# Confluence of Opportunities

- New data-intensive science instruments in the southern hemisphere:
  - Large Synoptic Survey Telescope (LSST) in Chile
  - SKA in South Africa
- New submarine cables in South Atlantic
  - EulaLink submarine cable from Fortaleza to Portugal
  - SACS submarine cable to Angola (Q3 2018)
  - South Atlantic Inter-Link (SAIL) to Cameroon (2018)
- Network aggregation in the southern hemisphere
  - Fortaleza as a south Atlantic hub
- Leveraging network infrastructure linking the U.S., South America, and Africa





# Planned Activities

- Knowledge sharing between the network engineers
  - Increase understanding of where network aggregation is developing or planned
  - Representation of the network between Africa, Brazil, U.S.
- Engaging science communities
  - Explore focused workshops with U.S. and African researchers
  - Engage early adopters
  - Increase understanding of needs for network and e-Infrastructure resources
- Developing a strategy for research and education network connectivity between the US and Africa



# Some Activities

- Presentations about the AARCLight project, about SDN and SDX were made at UbuntuNet 2016 and WACREN 2017
  - *Responding to the demands of big data scientific instruments through the development of an International Software Defined Exchange Point (SDX)*
- Presentation about the importance of SDX submitted to the 2017 UbuntuNet meeting
  - *Facilitating content distribution in Sub-Saharan Africa through Software-Defined Exchange Points*
- Meetings with African NRENs to discuss collaboration and ways of leverage the new links and exchange points in Angola and Fortaleza/Brazil

**Thank You!**  
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