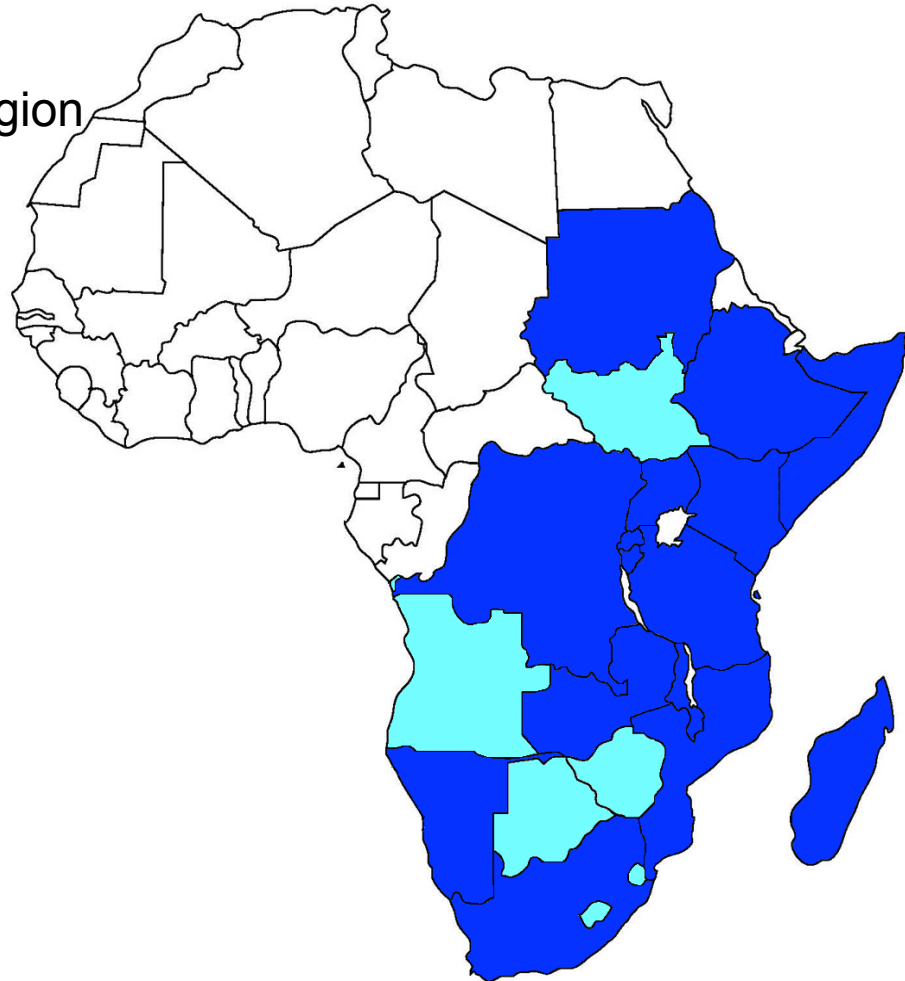


# Ubuntunet Alliance update

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Ubuntunet Alliance

# What is Ubuntunet Alliance?

- The regional Research and Education Network of ESA region
- NRENs from 15 countries
  - Eb@le, DRC
  - EthERNet, Ethiopia
  - iRENALA, Madagascar
  - KENET, Kenya
  - **MAREN, Malawi**
  - MoRENet, Mozambique
  - XNet, Namibia
  - RwEdNet, Rwanda
  - SomaliREN, Somalia
  - SudREN, Sudan
  - TENET, South Africa
  - TERNET, Tanzania
  - RENU, Uganda
  - ZAMREN, Zambia
  - BERNET, Burundi



- 10 POPs in total
  - 8 in ESA region
  - 2 in Europe (London and Amsterdam)
- Backbone covering 7 countries in ESA region
- 2.18Gbps capacity between the and European PoPs
  - 2 links along the west coast
  - 2 links on the eastern coast
- We also have some NRENs connecting directly to our European PoPs
  - KENET(Kenya) – 2x STM-4, 1xSTM-1, 1xSTM-16 (approx. 3.9 Gbps)
  - TENET(South Africa) – 2 x 10Gbps
  - MoRENet (Mozambique) – 1xSTM-1
  - TERNET (Tanzania) – 1xSMT-1

- 6 NRENs connected to PoPs in Africa
  - RENU (Uganda), connected to Kampala PoP
  - KENET (Kenya), connected to Nairobi PoP
  - ZAMREN(Zambia), connected through Lusaka PoP
  - MoRENet (Mozambique), connected through Maputo PoP
  - TENET(South Africa), connected through Mtunzini and Cape Town PoPs
  - RwEdNet (Rwanda) connected through the Kigali PoP
- Peering with GÉANT in London and Amsterdam
  - Research and Education traffic from GÉANT and other RRENs that peer with GÉANT
- Peering at LINX and AMS-IX (Settlement free)
- Peering at NAPAfrica (Settlement free)
- Transit at LINX and AMS-IX

# Where are we now? Current network



- Regular capacity building events since 2012
- In partnership with AfricaConnect, NSRC and INASP
  - To train Network Engineers at campus and NREN level
  - In a sustainable way
- Mode:
  - Training workshops
    - Mostly at NREN level, by NRENs training personnel from member institutions
    - Training of Trainers, carried out once every year.
  - Secondment of expert personnel from advanced NRENs and similar organizations to assist with specific phases of network development
    - mainly direct engineering assistance events, including equipment donations

- AfricaConnect & INASP
  - Funding of training workshops organized by the Alliance in collaboration with NSRC
  - Funding personnel to attend courses at AfNOG
- NSRC
  - Provide trainers for workshop events (NREN and campus level)
  - Train trainers
  - Provide training kits
  - Support for trainees and trainers to attend training events
  - Direct Engineering Assistance for Universities including equipment donations

- 79 personnel directly trained since November 2012
  - 33 on advanced routing techniques
  - 15 on various courses offered by AfNOG
    - Scalable Internet Services, Scalable Network Infrastructure, Network Monitoring & Management, Advanced Routing and CERT
  - 31 trained as trainers at ToT workshops held in Kigali in 2013 and Lusaka in 2014
    - Trainers have organized 22 training workshops in their respective NRENs, training a total of 515 technical personnel
  - More events planned to take place before the end of 2015
- So far, 8 Direct Engineering Assistance events have been carried out with equipment donations in some cases.
  - To improve campus networks

- Through efforts of member NRENs which leased links to the 2 PoPs in Amsterdam and London
- Through donations of organizations and member NRENs
  - Cisco, for the original router at the London PoP
  - IDRC, for aiding the secretariat
  - NSRC, AfricaConnect and INASP for supporting the capacity building program
  - AfricaConnect, for funding the establishment of UbuntuNet
  - Alliance member NRENs for funding the establishment of UbuntuNet

- Was a project to Implement UbuntuNet (the network)
  - Interconnect NREN networks within the Alliance region
  - Ensure African traffic is exchanged within Africa
  - Connect to GÉANT and rest of REN community through UbuntuNet PoPs in Europe
- Budget - € 14.75 M for 4 years, ending May 5<sup>th</sup> 2015.
  - 80% provided by EC
  - 20% by Alliance NRENs
- It aimed to;
  - Foster the development of cooperative research programmes between European and African research and education communities;
  - Open up the research activities in the region and build co-operation with researchers in the rest of the world;
  - Support NREN staff capacity building
- Was successful, as seen from the foregoing discussion

- AfricaConnect2 builds on the work carried out under the previous AfricaConnect action and extends it to a pan-African scope.
  - Cluster1 – ESA, under UbuntuNet Alliance
  - Cluster 2 - West and Central Africa region, under WACREN
  - Cluster 3 - North African countries organised under ASREN
- Cluster 1 budget - €10M, over a 4 year period
  - 75% provided by EC
  - 25% by Alliance NRENs
- The Alliance will use the funding to consolidate and improve the UbuntuNet - upgrading extant links, building resilience, connecting newly ready NRENs and implementing e-infrastructure services.

Thank you