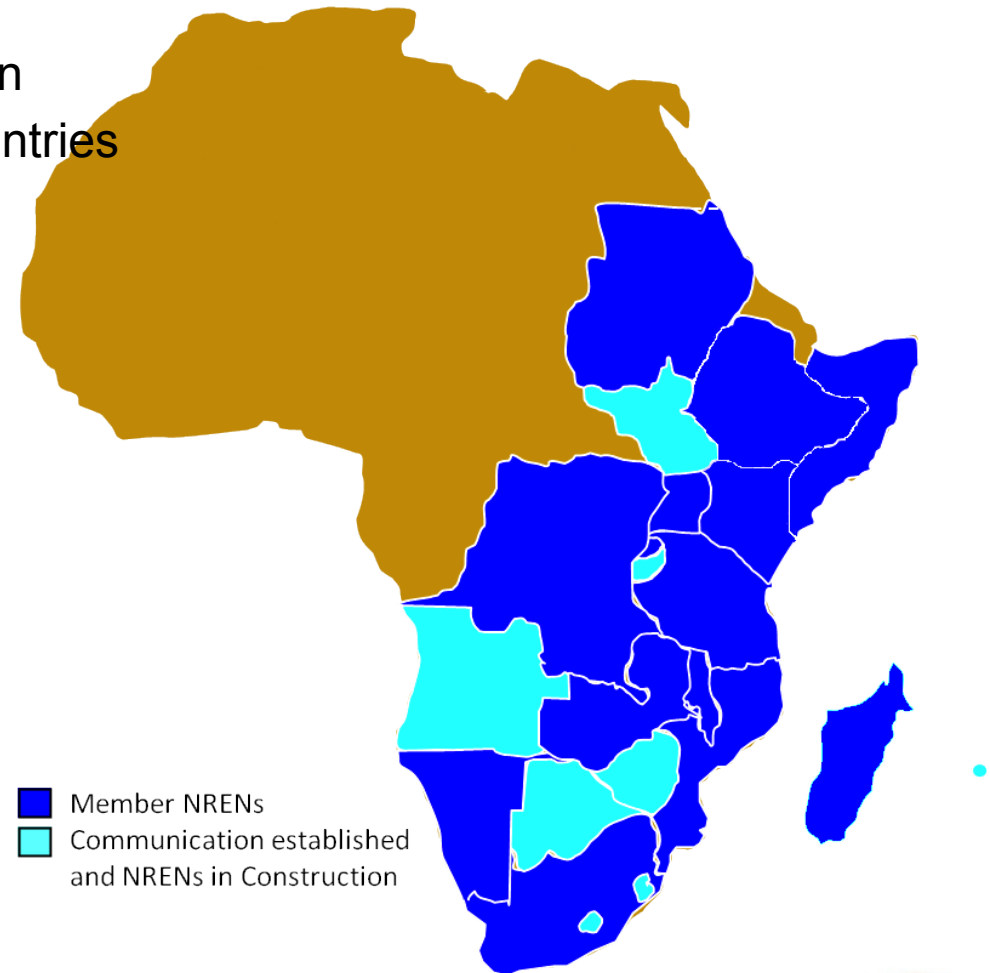


Ubuntunet Alliance update on network operations

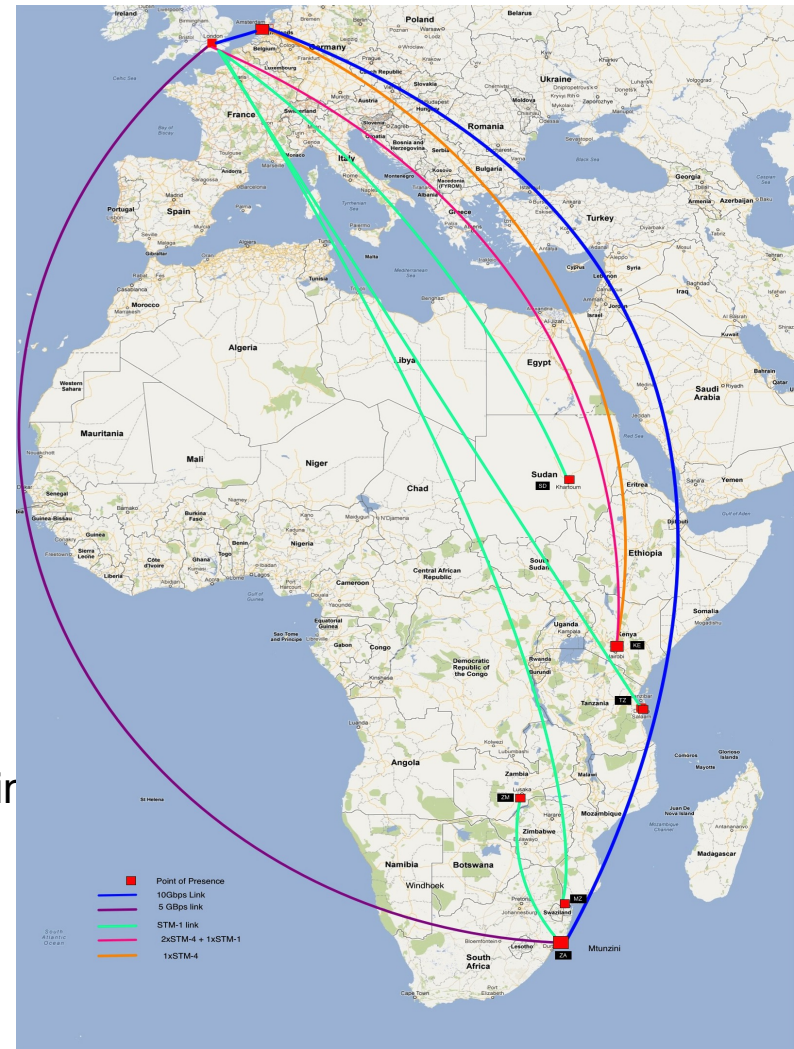
Joe Kimaili

Ubuntunet Alliance

- The regional Research and Education Network of ESA region
 - Member NRENs from 14 countries
 - Eb@le, DRC
 - EthERNet, Ethiopia
 - *iRENALA, Madagascar*
 - KENET, Kenya
 - MAREN, Malawi
 - MoRENet, Mozambique
 - XNet, Namibia
 - RwEdNet, Rwanda
 - SomaliREN, Somalia
 - SudREN, Sudan
 - *Southern Sudan (de facto)*
 - TENET, South Africa
 - TERNET, Tanzania
 - RENU, Uganda
 - ZAMREN, Zambia



- 3 POPs
- 2 Links from Mtunzini PoP to Europe
 - Owned by TENET
- 4 NRENs connected directly to London
- KENET connected directly to Amsterdam
- All traffic exchanged in Europe
- Peering with GEANT in Europe
- Peering and transit at LINX and AMS-IX
- One light-path currently operational
 - Between HartRAO and Jive
 - Transfer of e-VLBI data from the observatory in HartRAO to JIVE in real time
 - 2 Gbps capacity



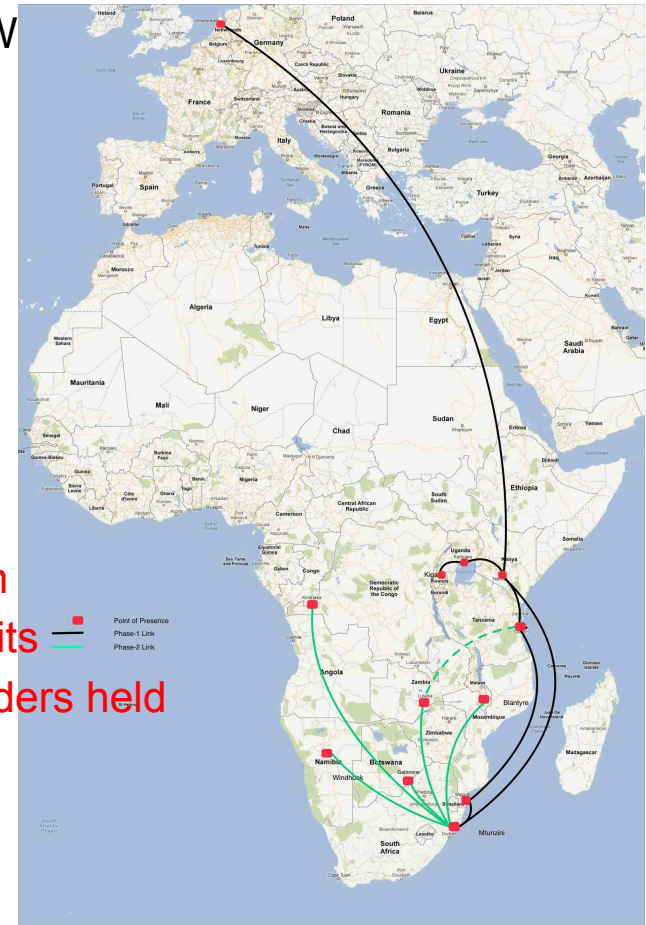
- Project to Implement UbuntuNet (the network)
 - Interconnect NREN networks within the Alliance region
 - Ensure African traffic is exchanged within Africa
 - Connect to GÉANT and rest of REN community through UbuntuNet PoPs in Europe
- Budget - € 14.75 M for 4 years.
 - 80% provided by EC
 - 20% by Alliance NRENs
- Aims 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



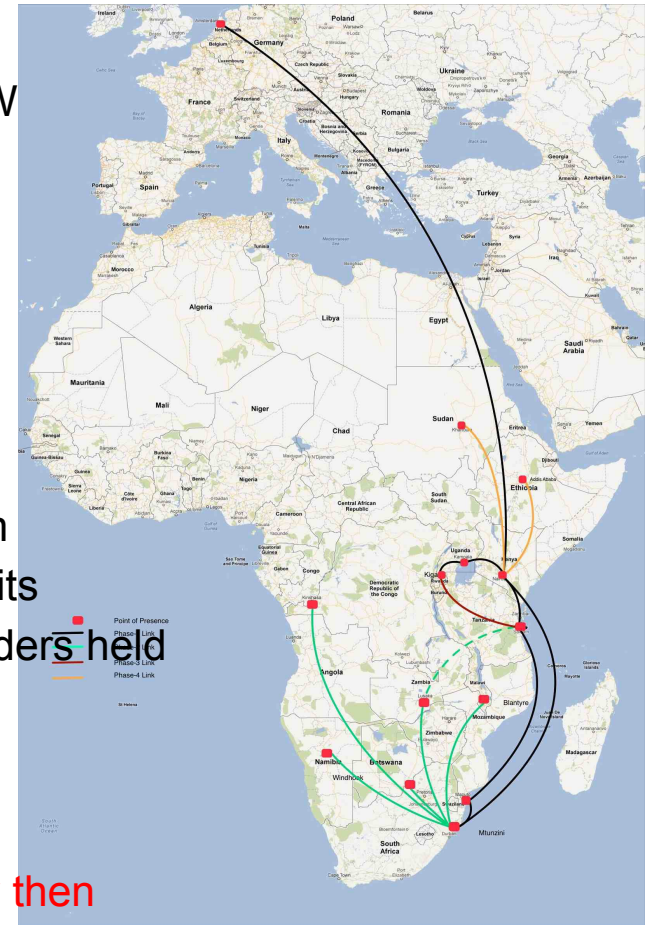
- Phase one:
 - Backbone linking PoPs in ZA,MZ,TZ,KE,UG and RW
 - Backup link KE-ZA
 - Intercontinental link from Nairobi to Amsterdam
 - Establish PoP in Johannesburg
 - Upgrade London PoP
 - **Contracts for connectivity and equipment awarded**
- Phase two:
 - Spur links to Zambia, DRC, Malawi, Namibia, Botswana.
 - Backup link from Lusaka to Dar es Salaam
 - Procurement has started for phase 2 circuits
 - ITT issued, first dialogue session with bidders held
- Phases 3&4:
 - Spur links to Addis Ababa and Khartoum
 - Backup link, Dar es salaam to Kigali
 - Links to other NRENS that will be ready by then



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- Implementation will be done in phases
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- The Alliance's has a capacity building program whose immediate goal is to ensure there is enough human resource capacity in member NRENS
 - able to plan, implement and operate advanced data networks
 - Ensure that NREN networks are properly designed and configured
 - In time for connection to AfricaConnect network
 - To provide technical support to the Alliance in the running of UbuntuNet – remote hands.
 - To support their member institutions in designing and configuring their networks

- The program incorporates:
 - Training workshops
 - Secondment of expert personnel from NRENs with advanced Networks to Alliance NRENs whose network is under development
 - Preferably during a major phase of network implementation
 - Attachment of Engineers from Alliance NRENs to NRENs with advanced networks
 - to acquire **specific skills that are going to be used immediately**
- Secondment and attachments are done under the NREN twinning program
 - KENET→DFN
 - RENU→SURFNET

- AfricaConnect project
- Support for trainees to attend workshops organized by the Alliance in collaboration with other partners.
- Network startup Resource Center (NSRC)
 - Support for 3 years starting November 2012
 - Provides trainers for workshop events (NREN and campus level)
 - Provide training kits
 - Establishment of online training LABs
 - Support for trainees to attend workshops
 - Direct Engineering support for Campuses

- International Network for the Availability of Scientific Publications (INASP)
 - Support for 5 years starting January 2013 for select countries in the Alliance region
 - Will support training workshops in collaboration with NSRC and AfNOG
 - Support for campus network Audit and interventions in collaboration with NSRC
 - Support for Attachments and secondments under the twinning program.
- Internet Society (ISOC)
 - Has collaborated with the Alliance since 2009
 - Provides trainers for workshops in collaboration with NSRC
- AAU
 - Provides travel and accommodation support for trainees

- Two events carried out so far, a total of 33 engineers trained.
 - 15 engineers trained on Advanced Routing techniques during UbuntuNetConnect 2012
 - 18 engineers trained on Advanced Routing techniques and EDUROAM
 - Trainers from NSRC/ISOC and EDUROAM, air tickets and accommodation provided by AfricaConnect, AAU and NSRC
- Three events planned before the end of the year
 - Wireless tutorial event during AfNOG 2013 in Lusaka, followed by direct engineering support for Copper belt University
 - ToT event in September 2013 in Nairobi
 - To coincide with implementation of the proposed online LAB funded by NSRC
 - Advanced routing training event in Kigali the week before AfricaConnect 2013

- UbuntuNet Alliance is a partner in the e-infrastructures for Africa (eI4Africa) (www.eI4Africa.eu)
 - an FP7 project funded by the European commission aimed at promoting e-infrastructure in Africa.
 - Promote Euro-Africa collaborative research on e-infrastructures and their applications
 - Develop a science gateway (<http://sgw.africa-grid.org>), and use it to demonstrate applications to researchers and policy makers.
 - NRENs have just completed the implementation of Certificate Authorities for authentication
 - In readiness for infrastructure under AfricaConnect
- The Alliance is also a partner in the CHAIN-REDS project (www.chain-project.eu)
 - Interoperability of grid infrastructure to allow virtual research communities to access worldwide e-resources

Thank you