UbuntuNet Alliance
www.ubuntunet.net

Brief to Internet2 Spring Meeting

“When the webs of a spider combine, they can trap a lion” – Ethiopian proverb

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Part 1: Reflections

• “We know that we have it in ourselves as Africans, to change all this [the challenges we face]. We must assert our will to do so. We must say there is no obstacle big enough to stop us from bringing about an African renaissance.”

– Nelson Mandela
The beginning..

- Mid 2005: Availability of terrestrial fibre and the potential east coast submarine cable EASSy catalysed the coming together of embryonic and developed NRENs in 5 countries to initiate the development of an African regional REN. At Internet2 2005 Fall Meeting in Philadelphia during an informal chat among African pioneers in the lobby, Duncan Martin of TENET mooted the name “UbuntuNet” for the regional REN. The name eclipsed all earlier attempts at baptism! The UbuntuNet Alliance was registered in March 2006.
• Ubuntu or Obuntu: - “I am because we are”
• ...Ubuntu is not just a philosophy – it is a way of life that defines the relationship of the individual to the community and vice versa …
• ... It recognises that individual good arises out of the community good and vice versa...
• ...It is about the responsibility of caring for the general welfare, supporting others.
• Obuntu means “the essence of humanity”; Omuntu means “a human being”
• Hence UbuntuNet Alliance
• **Part 2: Our Role and Vision**
Layers and Roles: Many dimensions, many players

- Content Networks (Researchers, Libraries, Universities, Management)
- Global REN Infrastructure
- Regional Infrastructure
- NREN National Infrastructure
- Campus Infrastructure
- Teachers, Researchers, Libraries, Classrooms, Labs, Management

- IEEAF, I2, Geant, etc
- UbuntuNet, etc
- KENET, etc

Campus level
Our Vision and Role

• We see an African continent holding its own as a member of the global REN community

• Our role: enabling connectivity of national and regional RENs, with sufficient and affordable connection to each other and the international research community via fibre.

• We work with the AAU REN Unit which provides continent-wide policy level stimulus, guidance and international governmental level negotiations and linkages
Part 3: Plans and Progress
Cluster Based Approaches

• Cluster based approach, but using common architecture so that clusters will connect seamlessly

• Data centres and network operations centres in Nairobi and Cape Town (when clusters link, these will serve each other as back-up and disaster recovery).

• Enabling networking and access for institutions that use VSAT.

• Linking to other regional and international REN networks.
South and East Clusters

South Cluster

South and East Clusters

East Cluster

South Cluster

East Cluster
UbuntuNet: Current membership
Current Status (Ref: East and South Clusters)

- Formal REN, advanced network and sufficient bandwidth: **NONE**

- Formal REN and underlying infrastructure:
  - Malawi, Mozambique, Kenya, South Africa, Sudan, Namibia, other?

- Formal REN but no underlying infrastructure:
  - Rwanda, Tanzania, Zambia, DRC, Uganda

- REN in formation:
  - Botswana, Swaziland, Lesotho, Ethiopia, Somalia, other?
Connection to Géant and the world of research (1)
Connection to Géant and the world of research (2)

- STM-1 circuits on SAT-3 submarine cable
- UbuntuNet router in London
- Peering with local ISPs (7 so far)
- Local transit links
- JINX
- Internet Solutions
- SA Internet
- Reefhead JHB
- Breehead CPT
- Internet
- Géant

Transit from Telia Sonera and DataHop
Plans for VSAT Virtual RENs

- Backhauls to London
- UbuntuNet router
- UbuntuNet routers at VSAT teleports in Europe
- VSAT-dependent campuses all over Africa
Extending continental coverage and international reach

• Working with the AAU and the Nigerian ICT Forum:
  – To stimulate and support REN activity in Western Africa and elsewhere: a West African Research and Education Network (WARREN) has been mooted
  – Promote the growth of fibre based networks
  – Bring content networks on board.

• Working with IEEAF to secure access to donated IRUs within Africa and links from Africa to the rest of the World.

• Focusing on buying IRUs where we cannot get donated capacity
Appreciation to our supporters to-date

• IDRC and Connectivity Africa
• Partnership for Higher Education in Africa
• Sida
• Cisco
• KTH (Sweden)
• DANTE
• IEEAF
• Open Society Institute
• Open Society Initiative for Southern Africa
• TENET's FRENIA (Fostering Research and Education Networking in Africa) Program, funded by The Andrew W Mellon Foundation.
• USAID
• GEO
• University of Washington
Conclusion: Food for thought..

• A spear has a pointed end, a mass of supporting metal, a shaft, and a thrower…

• Thank you