African Research and Education Networking
An update

International Updates and Strategies

Internet2 Spring Member Meeting
Arlington, 22nd April 2012

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OUTLINE

- The AAU
- AAU activities on R&E Networking
- REN development in Africa
- Lessons learned
- Main challenges
- Opportunities
- AfRENN in the making
The AAU

- Continental organization for African Higher Ed
- Established in 1967 in Rabatt, Morocco
- Secretariat based in Accra
- Platform for collaboration among African HEIs
- Membership-driven
- Presently about 300 member institutions
- Several programmes, incl. ICT and R&E networking
- REN Unit established in 2006
- AAU is Internet2 MoU partner
AAU activities on R&E networking

- Awareness raising, sensitization and capacity building of decision and policy makers (VCs, Ministers, Regulators, etc.)
  - COREVIP sessions
  - LEDEV sessions
  - Council of Ministers meetings
  - Other conferences and meetings
  - Policy briefs
  - Etc.
- Facilitation of national/regional policy development workshops
- Capacity building of Campus Network Managers (in collaboration with partners like AfNOG, AfriNIC and NSRC)
REN development – UA region

- UbuntuNet Alliance established in 2005
- First African regional REN
- Membership growth: from initial 5 to 13 member NRENs to-date
- Member NRENs located in East and Southern Africa
- Many well established NRENs; others in different phases of development
- Connectivity to the global REN through GEANT
- Present focus: implementation of AfricaConnect, a EU-funded 15 M€ project
REN development – UA region (2)
REN development – ASREN region

- ASREN: Arab States Research and Education Network
- Launched in December 2010
- Can be considered as expansion of EUMedConnect (connection of Mediterranean countries to GEANT)
- EUMedConnect: project funded by the EU; direct links from participating NRENs to GEANT
- Attempt to establish regional REN for North Africa by connecting the NRENs directly the NRENs did not succeed (CAMREN)
- AAU is reaching out to this RREN
REN development – WACREN region

- WACREN: West and Central African Research and Education Network
- 22 potential member NRENs
- Initiative for establishment of a regional for West and Central Africa started in 2006
- Potential membership base: NRENs in the 22 West and Central African countries
- WACREN formally registered in August 2010
- Board elected in March 2011
- Senegalese NREN designated for WACREN NOC to GEANT through RENATER (French NREN)
- WACREN Board Retreat to be held in Dakar in May 2012 to develop Strategic Plan
REN development – WACREN region (2)

- 4 NRENs formally established (Ghana, Senegal, Mali and Niger)
- Development in many other countries, e.g.:
  - Nigeria: many clusters are being established
  - Cameroon: Reseau Inter-universitaire du Cameroun (RIC) already interconnects 6 universities. Formal REN establishment
  - Togo: interconnection of the 2 public universities; others to join. Formal establishment of NREN planned for June 2012
  - Gabon, Côte d’Ivoire: REN establishment process in course, after national policy development workshops
REN development – WACREN region (3)
REN development – WACREN region (4)

GHAHNET
REN development – WACREN region (5)
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REN development – WACREN region (6) RITER
REN development – WACREN region (7)

EKO-KONNECT
Lessons learned

- RENs are about collaboration; trust is to be built among all stakeholders
- Not all potential participating institutions can be “ready” at any period of time; so:
  - Start small
  - Be open for other to join, without any discrimination
  - Scale up
- Identify and support champions
- Involve end-users
- Involve telecom regulators and operators
- Show case to convince actors, policy and decision makers
Main challenges

- Inadequate telecommunications regulatory environment in most countries
- Mis-understanding by operators of what REN traffic is, in comparison to commodity Internet traffic
- Near-monopoly position of operators in many countries
  - At continental level: 80% of international traffic controlled by only 8 operators; but things are changing fast. Many more players now
- Costly technology still used in many countries (VSAT); but this is also changing due to fiber-based submarine cables and national backbones
- Human resources
- Power supply
Opportunities

- Increased awareness of policy and decision makers
- Telecom regulators and private sector (especially telecom operators) more receptive to REN message
- Competition through multiplication of players (infrastructure owners and operators)
- Development partners more and more favourable to supporting REN development (e.g. AfricaConnect funded by EU, World Bank and other institutions’ initiatives)
- Government support through using government infrastructure (e.g. ADIE in Senegal and NITA in Ghana)
- Strong REN communities at national, regional and continental levels
- Solidarity and support of international REN community
AfREN in the making

- Ingredients for realizing the objective of creating a continental REN for Africa in place
  - UbuntuNet Alliance more and more stronger
  - WACREN established and becoming a catalyst of REN development in West and Central Africa
  - Reach out to ASREN
- Strong, collaboration-oriented community (AfREN Forum)
- More players enabling affordable interconnection options
- Endorsement and support from continental and regional institutions (AUC, AAU, ECOWAS, WATRA and others)
- Recent establishment of an AfREN Coordination Committee with Representatives of UA, WACREN and ASREN
- Next AfREN meeting on 14 May 2012 in Banjul – You’re invited!
Our Strategic Partners and Supporters

- African Capacity Building Foundation
- African Network Operators Group
- African Union Commission
- Carnegie Corporation of New York
- European Union Commission
- Ford Foundation
- International Development Research Centre
- Network Startup Resource Centre
- Partnership for Higher Education in Africa
- Regional Registry for Africa
- Rockefeller Foundation
- The REN Community (DANTE/GEANT, Internet2, RedClara, various NRENs)
- And many others... (especially at national levels)
THANK YOU

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