Building a Research and Education Infrastructure in Africa

Policy Perspectives and AfricaConnect

FEAST Identification of Remaining Gaps

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IST-Africa, Durban, 20 May 2010

Awareness, Will and Capacity

- Awareness of the concept of Dedicated Research and Education Networks

- Awareness of the the need for them

- Awareness of the importance of them in relation to other needs

- Will on all levels to act on policies and enforce regulation

- Awareness, Will and Capacity to act on the need for capacity building in the entire value chain

Axioms

1. Research and higher education institutions are key actors in the creation of the knowledge society

2. They need a common dedicated network infrastructure, just like banks, airline industry, weather institutions, etc.

3. Not connected institutions cannot fulfill their missions

4. Few Sub-Sahara African universities are currently connected. They all need to be, just as their peers on other continents

5. The connection is done via dedicated National Research and Education networks (NRENs) and Regional (RRENs) built on top of leased links in terms of dark fibre, wavelengths or data capacity.

Policy and regulatory environment
Low awareness and will

- Ministries of Higher Education, Research and Communication

    - Political awareness of NRENs as the means to connect institutions to their global peers

    - Endorsement and support of NREN organisations

    - Stimulate general telecom transition from low-volume/high price to high-volume/low price

- Regulator

    - Licenses and permits if needed to deploy and operate non-commercial networks for a closed user group, including domestic, international and transit traffic

Commercial conditions

- RENs need to lease affordable links: dark fbre, wavelengths or unmanaged capacity

- If development is a priority, policy should give priority to users rather than to vested interests in industry

- Competition must go from "hardly allowed" to "stimulated"

- Open access to key infrastructure resources should be enforced by the regulator to allow anyone to buy/lease resources on one level and provide services on any higher level

- Right of Way obstacles should be facilitated to solve

- Permitting formal regulations is one thing – strict enforcement and leadership to change behaviour is another.

Capacity building for growth and sustainability

- Vocational Training to satisfy immediate NREN needs
    - NREN Twinning
- Education to meet the "Tsunami" created by needs in all sectors of society, not only NRENs, to retain staff
    - Reinforcement of academic curricula on Master level in Communication systems and networks
    - Theory, laboratory exercises, project assignments
    - Institutional partnerships

NREN Readiness

- Member institution awareness

  - Campus networks, Lighthouse demonstrators

- NREN

  - Organisation and human resources

  - Acceptable Use and Connection policies,

  - Interconnected campus networks of member institutions

  - Assigned numbers from Afrinic

- RREN

  - Ubuntunet Alliance (2005-2006)

  - WACREN (2010-2011)

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