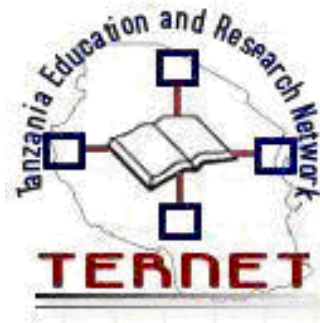


Tanzania Education and Research Network (TERNET)



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January, 2012

Agenda

- **Introduction**
- **Potential members of TERNET**
- **TERNET Milestones**
- **Status of NICTBB**
- **Current Status of TERNET**
- **Use and Benefits**
- **Challenges**
- **Collaborations with USA institutions**





Population: 43 million

Demographics

- gender
 - Women: 51%
 - Men 49%
- age group
 - Under 30
 - Over 30

Official Languages

- Kiswahili and English

GDP growth: 6.5% (2010) , 6.7% (2011 est.) – Source: [IndexMundi](#) representing [CIA fact book](#)

Economic Occupation:

- 70% of the pop work in agriculture and live in rural areas
- Exports (gold, diamond, coffee, tea, cotton, sisal, wood, paper, cashew nuts)
- Imports (consumer goods like foodstuffs, machinery and transportation

POTENTIAL MEMBERS

Level	Primary	Secondary	Teachers Training College	Public /Private Universities	Technical/ Vocational Education
No. of Institution	15,816	4,102	77	33	230

Source: TCU & NACTE Website

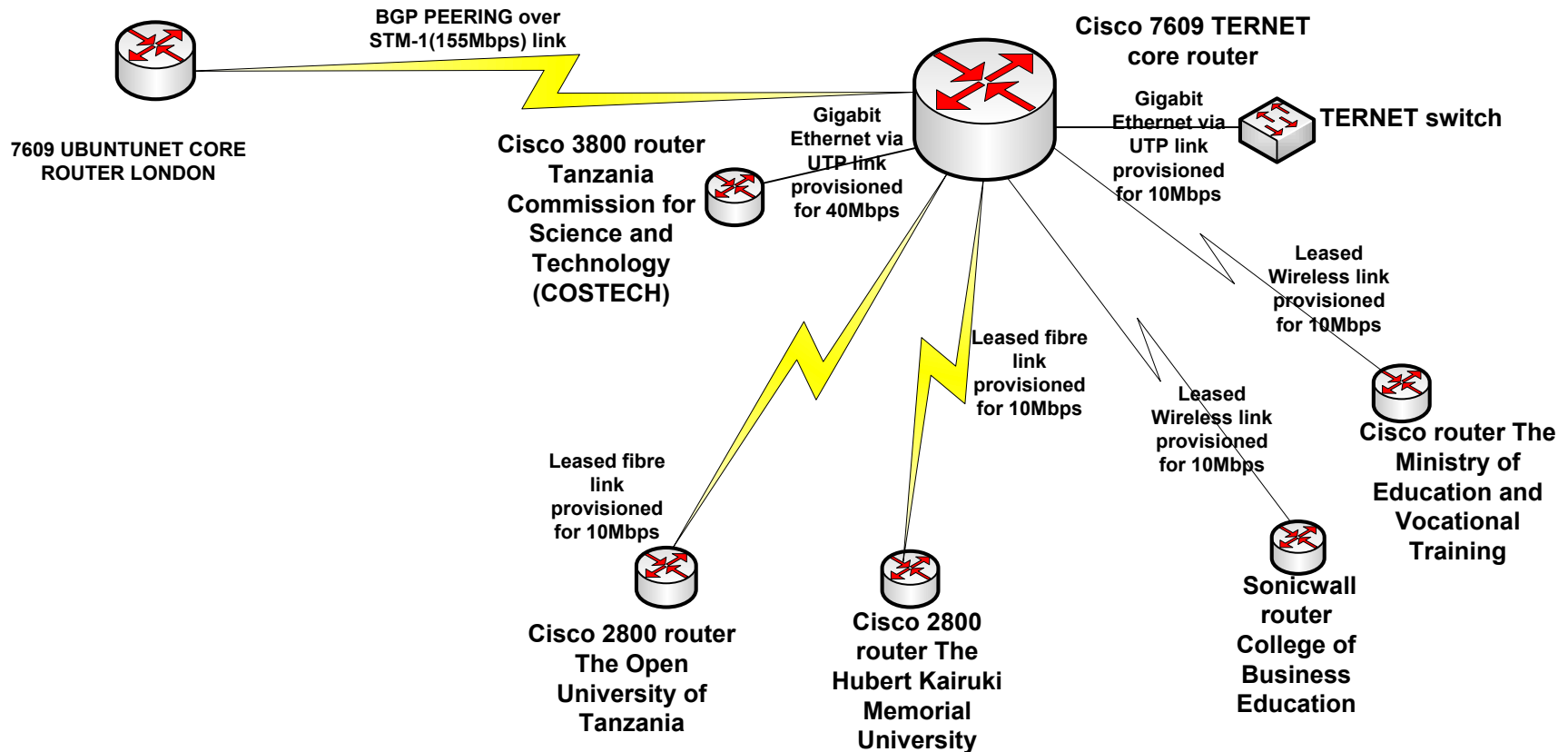
TERNET Milestones

- 2000 - the need for a NREN was realised
- January, 2002, 16 Higher Education Institutions (HEIs) signed a MoU to establish NREN TERNET.
- March, 2007 – TERNET, was formally constituted
 - Interim Leadership
 - 21 Institutions signed MOU
 - Constitution was then drafted
- 11th April, 2008 – TERNET registered as a Trust
- 18th April, 2008 - TERNET become member of UBUNTUNET ALLIANCE

TERNET Milestones cont'd

- The **STM-1** submarine fibre circuit live since **March 2011**
 - connecting **COSTECH** NOC with **Ubuntunet** in **London**
 - nominal bandwidth **155 Mbps**.
- The IP address allocation requested from AfriNIC - assigned in February, 2010, IP block number **41.93.0.0 / 17** or Autonomous System Number **37182**
- 47 TERNET members of which 20 are active members

TERNET Connectivity Today



Current Status - Connected Institutions

- Nine institutions connected -
 - **Tanzania Commission for Science and Technology (COSTECH)**
 - **College of Business Education**
 - **Open University of Tanzania.**
 - **Hubert Kairuki Memorial University**
 - **Ministry of Education and Vocational Training**
 - **Ardhi University**
 - **Dar es salaam Institute of Technology**
 - **Institute of Social Work**
 - **National Accreditation for Technical Education (NACTE)**

Current Use and Benefits

- Internet Service current free of charge-contribution mechanism underway
- Sharing of education and research resources
- Utilization of super computer at DIT

Challenges

- Infrastructure
 - High installation and recurring costs for middle and last mile loop
 - Ownership, operations and maintenance
- Capacity building of IT staff at institutions – requires more training
- The NOC - requires updated equipment
 - servers DNS, Mail, HTTP, network monitoring, and Bandwidth manager
- Serious issue with power and power backup.
 - The battery inverter was providing 4 hours backup time.

Future development plans for the physical network

- Immediate plans –
 - connect institutions to the **NOC** at COSTECH
 - a mix of **fibre and wireless local loops**
 - Up to **1Gbps (vs 2 to 5 Mbps wireless)**
- Long-term plan –
 - Utilize **national ICT backbone to connect institutions** – local and other regions
- Points of Presence (PoPs) -
 - Dodoma, Mwanza, and Arusha
 - linked back to the NOC at COSTECH via the NICTBB.

Collaborations (US universities, Internet2, etc)

- Management of NREN – O&M
- Capacity Building
- Equipments provision-server rooms
- ICT Infrastructure provision- wireless

Asante kwa kusikiliza