

Launch of TERNet

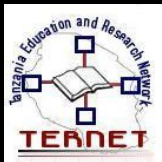
10 September 2008 Dar es Salaam

TENET Report

Duncan Martin

Director and CEO: TENET

Director (non-exec): UbuntuNet



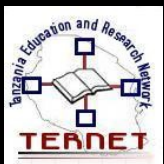
TENET



UbuntuNet Alliance
for Research and Education Networking

The foundation of it all

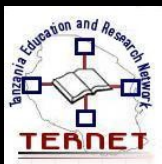
- Research and Education Networking is about sensible sharing of effort and resources



It's about sharing (1)

Within each institution, **END-USERS**...

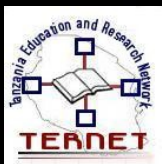
- **have their own**
 - PCs / workstations
 - Ethernet connections to first hub or switch
 - Printers (some times)
 - Storage space on file servers
 - Email accounts and mail folders
- **but share**
 - Campus backbone capacity
 - Access to licensed software
 - Network printers
 - Internet access
 - Mail domain e.g. mak.ac.ug



It's about sharing (2)

Within each NREN, institutions

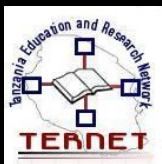
- **have their own**
 - IP address blocks
 - Connection circuits to the NREN
- **but share**
 - NREN's backbone capacity
 - NREN's network identity
 - NREN's peering agreements with other RENs
 - NREN's general Internet access
 - Other NREN services



It's about sharing (3)

Within each Regional REN, **NRENs**...

- **have their own**
 - Network identities
 - Connections to the RREN
- **but share**
 - RREN's network identity
 - RREN's cross-border backbone capacity
 - RREN's peering with other RENs
 - RREN's general Internet access
 - Other RREN services



About TENET

- Tertiary Education and Research Network of South Africa
 - formerly: Tertiary Education Network
- TENET
 - registered short name
- Incorporated on 22 August 2000



TENET



UbuntuNet Alliance
for Research and Education Networking

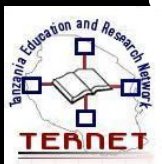
Constitution

- Incorporated under Section 21 of Companies Act
 - Association without shares and limited by guarantee
 - Subject to governance provisions of the Act
- Members are all statutory bodies:
 - 22 public universities
 - 5 research councils
 - Many smaller “user” institutions that are not members
- Board of Directors appointed by AGM
 - Minimum of 5 and maximum of 13 directors
 - All directorships expire at the next AGM
- Exempt from income tax (but subject to VAT)



Current Directors

- Prof L G Nongxa (V-C, Wits U) (Chair)
- Dr J V Leatt (retired V-C) (Dep Chair)
- Dr R V Coetzee (IT Dir) (nom by ASAUDIT)
- Dr R du Pre (V-C, DUT)
- Dr A Kaniki (NRF Exec)
- Dr D Malaza (CEO, HESA)
- Dr D H Martin (CEO) (ex-officio)
- H Shrock (ISP Exec) (nom by ISPA)
- S L Song (Donor Fellow)
- Dr F F Tusubira (UbuntuNet CEO)



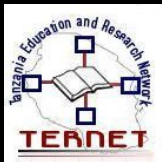
Comment 1: NGO

- TENET is entirely *non-governmental*
 - *This is for historical reasons*
 - *Costs of Internet access through TENET are borne entirely by the user institutions*
- This became a problem
 - *In 2007 Government started (and is providing capital funding to) another NREN (SANReN)*
 - *SANReN is controlled top-down by officials*
 - *SANReN is deploying a gigabit network to support e-research*
- *Memorandum of Agreement*
 - *TENET provides operational services to SANReN*
 - *TENET recovers operating costs from institutions*



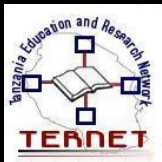
Procurement agent or Service Provider?

- TENET is a procurement agent
 - Regulatory regime precludes self-provision of infrastructure
 - Institutions appoint TENET as their agent
 - TENET appoints service providers
 - Neotel (MPLS network infrastructure)
 - Internet Solutions (Layer 2 bandwidth to London)
- TENET is also a service provider
 - Has VANS license
 - Value-Added Network Services
 - Provides value-added Internet services
 - Routing, peering, transit arrangements, DNS, mirror
 - Provides REN connectivity via UbuntuNet
 - Duncan Greaves is Service Manager



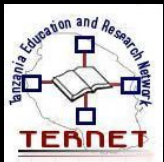
Comment 2: Top-down or Bottom-up?

- Bottom-up
 - Ownership/control of the NREN lies with the member institutions
 - Avoid conflict between customer and director roles
 - Reference groups for participative decision-making
 - Maintain close relationship with “the authorities”
 - Self-sustaining business model is essential
- Top-down
 - Ownership/control lies with the authorities
 - Funding control lies with the authorities
 - No real notion or practice of membership
 - Danger of take-it-or-leave-it attitude



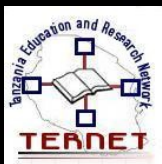
Comment 3: NPO

- TENET is a registered NPO in South Africa
 - “Non profit organisation”
- “Non-profit” does NOT imply:
 - You may not have revenue streams
 - You may not charge for your services
- “Non-profit” means
 - There are no shares or shareholders: instead you have “members”
 - There is never a distribution of surplus wealth to members or anyone else
 - You may recover costs through service charges



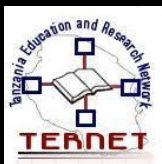
Comment 4: Lean and mean

- The low-cost bandwidth imperative
 - The price must do the talking!
 - staff secondment to get started
 - sharing support costs with other NGOs
 - Accommodation, secretarial, accounting, reception
 - outsourcing salary and benefits administration
- Plan for financial self-sustainability
 - Service fees recover direct costs and overheads
 - Seek donor funds only for start-up period



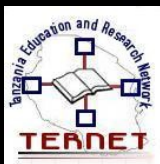
Capacity development programs

- DITCHE
 - Development of IT Capacity in HE
 - Andrew W Mellon
 - Atlantic Philanthropies
 - Develops a “community of practice among IT practioners in universities
- FRENIA
 - Fostering RENing in Africa
 - Andrew W Mellon Foundation
- Geoff Hoy has executive responsibility



Comment 5: The enduring mission

- Is to be the NREN that provides
 - REN connectivity
 - Access to research datasets
 - Access to scientific compute centres
 - Access to scientific computing grids
 - Access to advanced network research
 - Specialised capacity development
- Is not to be a bandwidth consortium
 - Internet bandwidth will become a commodity



Thanks for listening!

