

# ***NREN Workshop***

*23 February 2007*

*Nairobi, Kenya*

## UbuntuNet's Thrust to connect to Géant



# The idea

- Without waiting for broadband fibre connectivity...

*Connect NRENs individual campuses to Géant using their existing Internet connectivity*

– By “tunneling” through the Internet

- Only possible for NRENs and campuses that have their own routing identities (autonomous systems)
- *TENET’s Géant connection has worked this way since 2004.*



# Advantages of early connection to Géant

- Immediate operational reward for preparation effort
- Actual service that UbuntuNet offers its member NRENs...  
...and that NRENs offer to their institutions
- NRENs gain operational experience with BGP routing configuration and operations
- Makes each NREN part of the worldwide family of RENs

...and it works with VSATs too!

- In principle, tunnels can be configured through VSAT connections



# Preparations: getting NRENs connectable

- Workshops and training events
  - *Explain and discuss development strategy*
  - *Training in inter-domain routing*
  - *Training in managing renumbering projects*
- Secure Internet network identities
  - *NRENs apply to AfriNIC to become LIRs*
    - *own ASN and IP address allocations*
  - *Renumber campus networks*

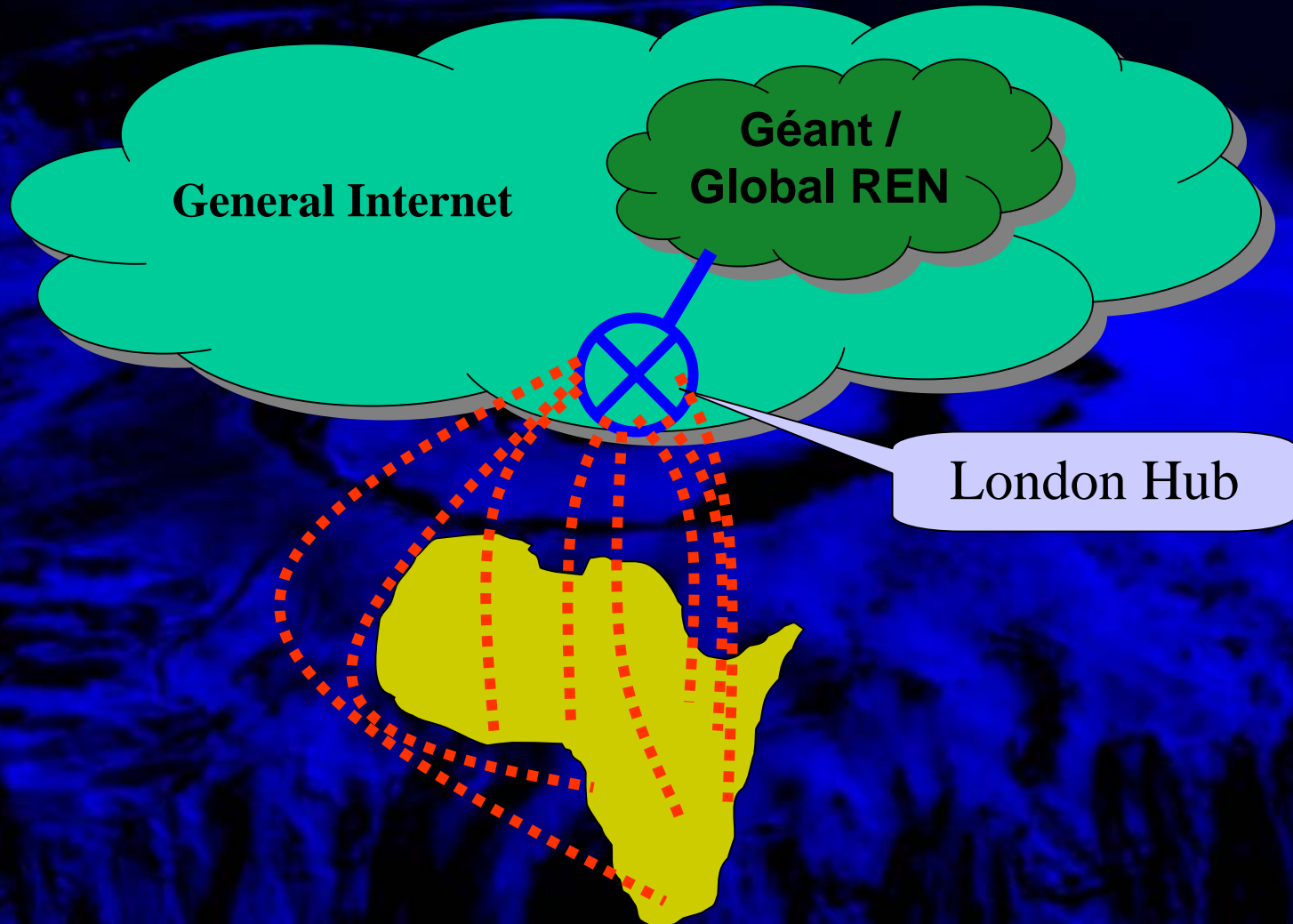
# UbuntuNet's Hub in London

- *Géant Policy Committee has agreed to UbuntuNet's Géant connection !*
- Create UbuntuNet hub in London
  - *Procure router and colocation space in London*
  - *Procure ASN and IP addresses from Africa (for UbuntuNet's own use)*
  - *Establish connection to Géant (with DANTE)*

# Connect the NRENs and campuses

- Connect connectable NRENs to the Hub
  - *Within IP layer, using tunnels*
  - *Routes announced*
    - *between NRENs and Hub; and*
    - *between Hub and Géant.*
- Expected early adopters
  - *KENET (AS 36914), MAREN, MoRENet, RENU, SUIN, TENET (AS 2018)*

# The Hub and tunnels from Africa



Thanks for listening!



UbuntuNet Alliance  
for Research and Education Networking

