



1st Annual University ICT directors Forum – April 10, 2015

Capacity Building of KENET Member Institutions

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Agenda

- KENET Training Objectives
- Training Areas
- Training Schedule
- Budget
- Trainers
- Training Lab
- Training Partners

KENET Training Objectives

➤ Objectives of KENET training programs:

- ✓ *Building technical skills to operate campus networks*
- ✓ *Build an ICT techies community for higher education*
- ✓ *Empower the KENET community*
- ✓ *Create trainers of trainers within the KENET community*

Training Areas

➤ Residential Training

- ✓ *Cyber Security*
- ✓ *Scalable Campus Networks*
- ✓ *Bandwidth management & optimization*
- ✓ *Scalable Campus Wireless Design (WLAN)*
- ✓ *System Administration*

➤ ISOC Online Training – Linux/Unix,

- ✓ *This is the future of training*

➤ Onsite Campus Training

- ✓ *Cyber Security*

KENET Training Schedule

➤ Frequency of Training

- ✓ *Conduct at least four (4) classroom/residential trainings per year*
 - ✓ *Frequency of training limited by logistical requirements for coordinating the administrative activities*
 - ✓ *Training calendar published at the start of the year*
- Four (4) residential trainings successfully conducted in 2014*

➤ Registration & Course Content

- ✓ *Participants register online*
- ✓ *Training slides & labs adapted from NSRC training content*
- ✓ *Some training areas have had course content created from scratch*
- ✓ *Content creation and testing of lab content a difficult task*
- ✓ *Surveys conducted in each training – determine effectiveness of program*

Training Budget

➤ Training Budget

- ✓ KENET develops training budget based on training duration
- ✓ Training Budget Composition:
 - Accommodation costs for participants at hotel
 - Meals for the participants
 - Training facilitation items – stationery, etc

➤ Training Cost

- ✓ Residential training cost per participant – US\$ 1,200 per week
- ✓ Non residential training cost – US\$ 700 per week
- ✓ Training week composed of five training days

Non-residential training discontinued due to lack of control of reporting time

➤ Training class size

- ✓ Ideal class size of 20
- ✓ Average class size of 25, most courses are oversubscribed

Trainers

➤ KENET Staff

- ✓ Experienced NOC engineers
- ✓ Specialists in different areas
 - Network Routing, Switching & Security
 - Systems Administration, Linux/Unix tools
 - Cyber Security
 - Campus wireless networks & mobility

➤ NSRC

- ✓ Donates trainers when requested
- ✓ Cover for all costs of the donated trainers

➤ ISOC online training support

➤ Experienced Consultants from Industry & Academia

- ✓ Provide expertise where KENET has gaps internally

Physical Training Lab

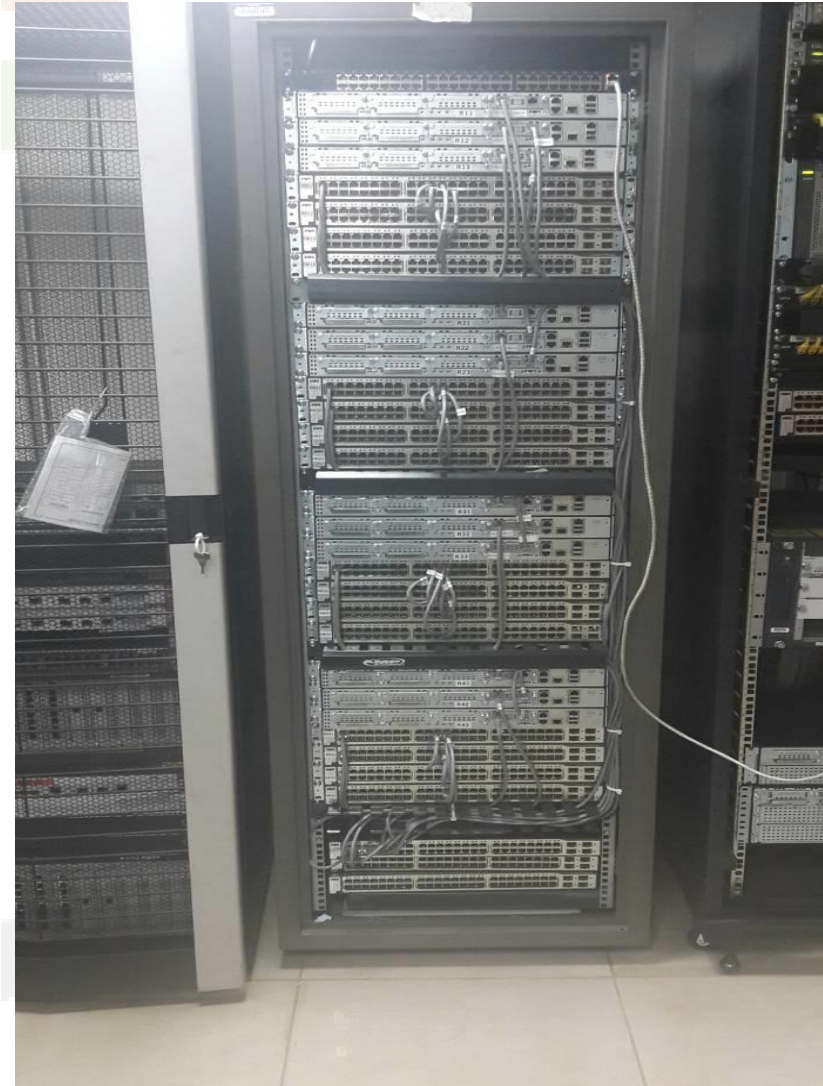
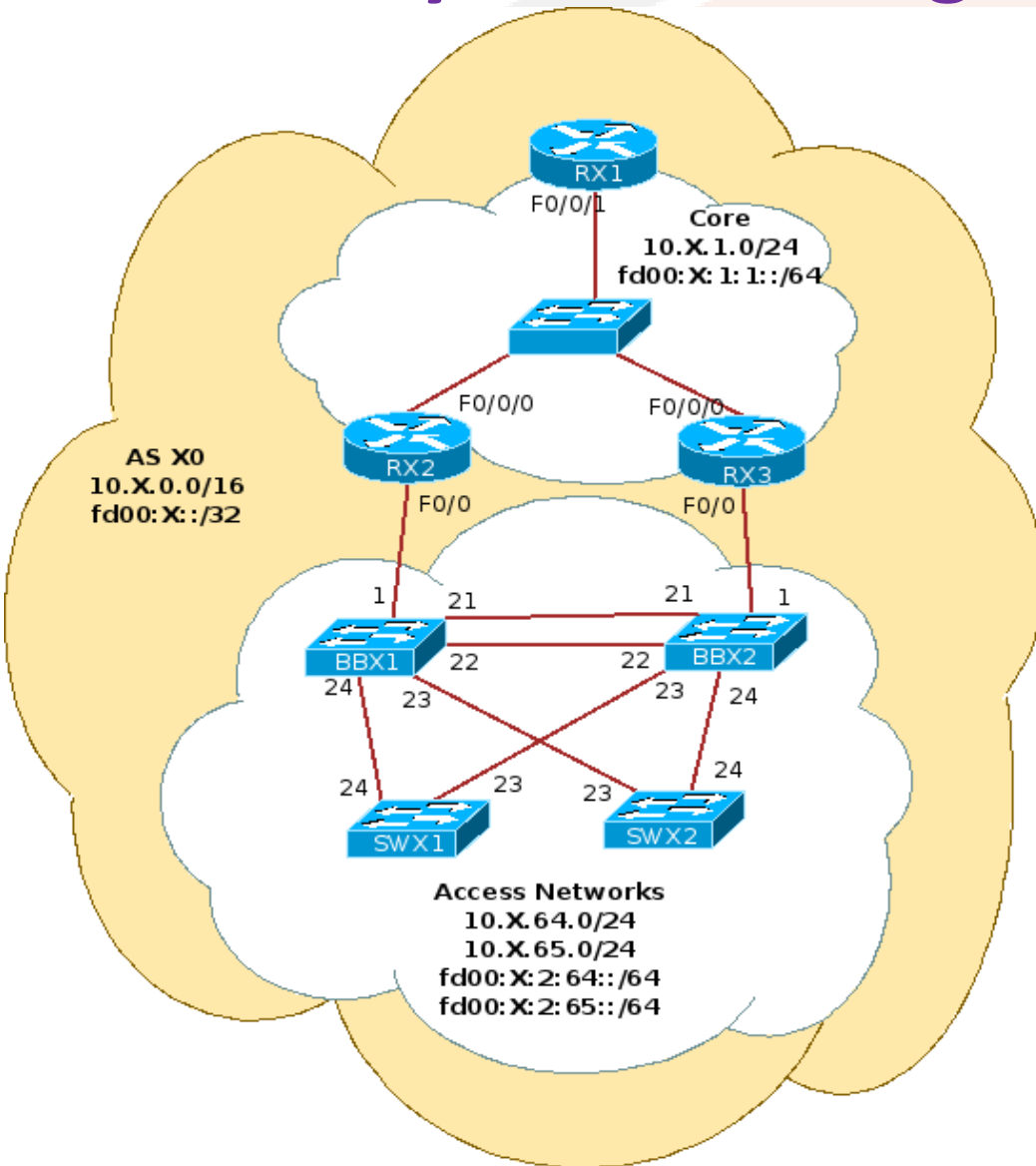
➤ Physical Training Lab

- ✓ Provides hands-on training in network switching & routing
- ✓ Equipment donated by NSRC – Approx. US\$100,000
- ✓ Consists of Cisco routers and switches
- ✓ Able to train four (4) groups
- ✓ Each with seven (7) devices to configure
- ✓ Training Lab available online for remote access

➤ Virtual Training Lab Kit

- ✓ Virtual Lab based on Mac Mini Setup
- ✓ Provides portability, good when no broadband connectivity at training location
- ✓ Equipment donated by NSRC

Physical Training Lab - Topology



Partners in Capacity Building

- **Partners support and fund Participants**
 - ✓ Network Startup & Resource Center, NSRC
 - ✓ Internet Society, ISOC
 - ✓ Google
 - ✓ Kenya ICT Authority
 - ✓ KENET Members

Residential Training 2014



Questions



*Transforming education
through ICT*

Thank You