

# UbuntuNet CONNECT 2015



**“Research and  
Education Networks,  
Putting Value into the  
Links”**

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# OUTLINE

- **NRENs CORE FUNCTIONS**
- **FUNDAMENTAL CHALLENGES**
- **CONNECTIVITY COST TRENDS**
- **TIME FOR ADDITIONAL SERVICES**
- **WAYFORWARD**

# NRENs CORE FUNCTION

“Facilitate Broadband Network connectivity for Educational and Research Institutions in order to enable the high capacity demands that are routine in advanced research.”

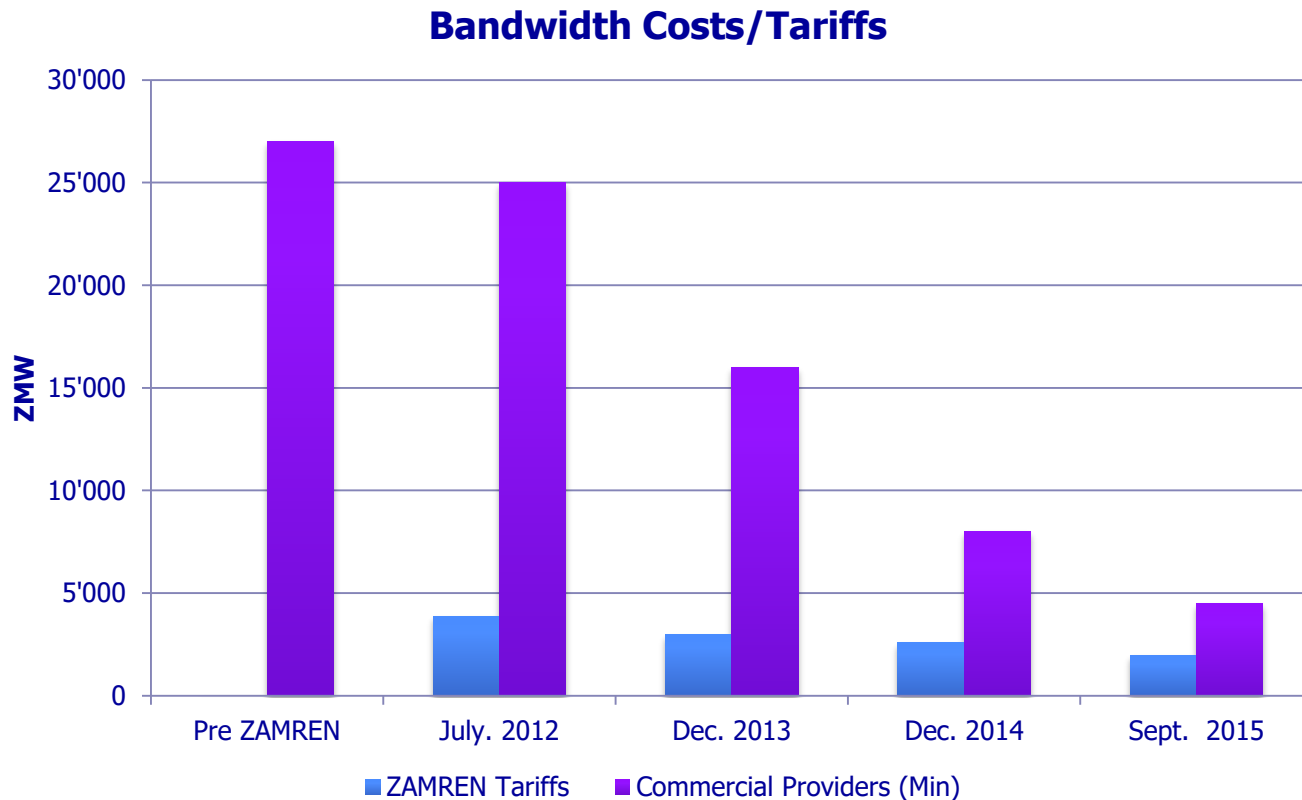
## NRENs FUNDAMENTAL CHALLENGES

- ① Prohibitive cost of connectivity. Africa was paying in excess of US\$70 million annually for less than 1Gbps connectivity.
- ① Identify, provide and manage ICT services that enable and promote Research and Education. This has a wide spectrum of challenges ranging from infrastructure, collaboration to organizational management.

# Cost/Capacity Profile

	Pre- ZAMREN	1 <sup>st</sup> Year ZAMREN July 2012- July 2013	2 <sup>nd</sup> Year ZAMREN Aug 2013- Aug 2014	3 <sup>rd</sup> Year ZAMREN Aug 2014- July 2015	Current
Total Capacities for R&E Institutions	<17Mb/s	155Mb/s	350Mb/s	622Mb/s	1Gb/s
Cost of 1Mb/s per Month	\$4,500.0	\$900.0	\$725.0	\$350.	\$250.0

# CONNECTIVITY COSTS COMPARISON



## ADDITIONAL SERVICES – BROADBAND BASED

- *Cloud & Grid Computing*
- *End-to-end Connectivity*
- *Federated ID*
  - *eduroam*
  - *eduGAIN*
  - *Sci-GaIA*
- *E-Learning Platforms*
- *High Performance Computing Resources*



# TECHNICAL SUPPORT SERVICES



- ◆ *Technical Capacity Building*
- ◆ *Direct Engineering Assistance*
- ◆ *Direct Research Assistance*



# Human Network Support Services



- *Broker and Professional Services*
- *Influencing Policies for ICT development and support:*
  - *Governments*
  - *Communities of Practice*

# SUMMARY

**NRENs should actively collaborate and exchange ideas in terms of what value added services have succeeded and thus share experiences and practices. Business Case for each service should be carefully analyzed and justified.**

**NRENs should collaborate with Communities of Practice to promote and support research initiatives.**

Thank You!