Preamble

• Given the potential technical, commercial and human development benefits that accrue from NGN conformity and interoperability (NGN CI), this paper reiterates the urgent need to implement NGN test centres in Africa.
Background

For a number of reasons, historical or otherwise, some of the ICT systems deployed in emerging markets have either been obsolete in the country of origin or just facing imminent obsolescence with some production lines having been closed.

Besides the burden of e-waste thus created, the existence of such systems in networks with their attendant limited compatibility with state of the art systems and with accepted best-practices curtail the extent to which the affected countries can access global ICT wealth (Senaji cited in ITU/BDT NGN workshop proceedings, Nairobi [August 2010]). They increase costs but compromise service variety and quality.
The ITU/BDT Workshop on NGN Conformance and Interoperability Testing Centre(s): "NGN and Broadband" was held for three day from 2nd to 4th August, 2010 in Nairobi, Kenya. was a response to the need for NGN Conformance and Interoperability (NGN CI) in Africa.

NGN Conformity and Interoperability Challenge (Revisited)

- Inadequate technical and operational human capacity
- Lack of compatibility among ICT systems negatively impacts the development of ICT in Africa and curtails its contribution to human development in the continent
  - Inadequate NGN Test infrastructure
Importance of NGN Test Centres in Africa

- Conformance and interoperability test centres will play critical role in ICT development in Africa, specifically:
  - Conformance and interoperability will assist in alleviating the e-waste problem being experienced in Africa (John Kimbe, SATA) and that e-waste is a conformance and interoperability problem.

*ITU Regional Seminar for the Africa Region on Conformance and Interoperability Testing Centre(s) - Accra (Ghana), 4-6 July 2011*
Impetus for the NGN CI Test Centres in Africa

- Resolutions by ITU-TSB (WTSA Johannesburg, Resolution 76) and WTDC-2010(Rev Hyderabad, Resolution 47) will go a long way in assisting Africa to alleviate the problems associated with lack of NGN conformance and interoperability.

Impetus for NGI CI cont.

- ITU has taken a lead in this area as is evidenced in the following Actions in Africa as follows:

  - Regional development forum (Kigali, 2007) with the theme: Bridging the Standardization Gap in Developing Countries. The forum reiterated the importance of standardization and proposed some of the steps to be taken to bridge the standardization gap between African and the rest of the world e.g. by active participation in the standardization (ITU-T) activities (see also http://www.itu.int/ITUD/connect/africa/2007/summit/pdf/s4- BridgingICTchairpersonsreport.pdf)
**Observations from previous works on NGN CI Test beds (ITU/BDT Workshop, Nairobi, 2-4 August, 2010)**

- There is an urgent need to have conformance and interoperability test centres
- The need to address challenge of financing NGN test centre(s) project
- There is urgent requirement for capacity building due to technological changes in NGN

**Observations cont.**

- Diversity in the African region in terms of language, levels of ICT development in different countries will impact the implementation of the test centres
- There are technical problems experienced by operators
- Work has been done by TSB which the field study on NGN test centre(s) can benefit from through collaboration and synergy
Moving NGN CI Process Forward (some Issues to be addressed)

- Policy and Regulation (including environmental aspects)
- Technical aspects of NGN conformance and interoperability such as specifications and operations and maintenance (O&M)
- Commercial and financial considerations for NGN test centre(s)
- Human capacity development for NGN test centre(s)
- Consumer issues
- Environmental and social impact assessments (ESIA)

Some Suggested Actions

- Elaboration of the process of establishing the test centres
- Financing mechanisms for the test centres
- Collaboration approaches to be adopted by the Africa Region
- Adoption or adaption of best practices for establishing conformance and interoperability test centres in both outside and inside Africa
Suggested actions cont.

- Structured process of collection of relevant reference documents such as ITU, ISO, IEC, IEEE
- Discerning the CI problem in Africa
- Economic feasibility for creating regional laboratories in Africa

Some enablers of NGN CI in Africa cont.

- **Supporting Infrastructure** - In order to realise the NGN test beds there is need for institutional infrastructure to operationalise the NGN conformity and interoperability programme.
- **investment funding** for the NGN test centres needs to be worked out in order to realise the test infrastructure.
- **human capacity building** is equally crucial to ensure that there are qualified people in the region to operate the NGN test centre.
Multi-stakeholder win-win partnership

- **Policy makers**: policies supportive of NGN CI
- **Regulators**: enforcement NGN CI requirements
- **Consumers/consumer organizations**: to be discerning and vigilant
- **Vendors/ technology suppliers**: deepening collaboration with regard to NGN CI while at the same time competing on other fronts such as speed of delivery of solutions and after sales support.

REFERENCES


REFERENCES cont.

• ITU RDF (Accra, May 2008). Linkage between ICT standardization and development: The case of developing countries, Online: http://www.itu.int/dms_pub/itu-t/oth/26/04/T26D040000010001PDFE.pdf


• ITU/BDT Workshop on NGN Conformance and Interoperability Testing Centre(s): "NGN and Broadband" Nairobi (Kenya) 2-4 August 2010