CONFORMANCE & INTEROPERABILITY TESTING CHALLENGES IN THE AFR REGION

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HIGHLIGHTS

- Introduction

- Current Situation & Gap Analysis

- Highlight of Challenges

- Res 76 & Perspective of DCs

- Way forward

INTRODUCTION

- Africa is the second largest mobile voice market in the world, after Asia.
  - Past 10 years mobile users in Africa has grown an average of 30% per year
  - forecast to reach 906 million by the end of 2015
    - Thus representing a penetration of 84%.

- Broadband Internet connections has increased from 0.2m in 2006 to 15m at the end of 2010
  - it is expected to hit over 230m by 2015

INTRODUCTION – CONT.

- Demand for services has increased the influx of ICT terminal and network equipment.

- Raised issues of reliability and safety with users

- But we cannot confirm whether or not these systems and terminals conform the required standards.

CURRENT SITUATION AND GAP ANALYSIS_ CASE OF DCS

- Many African countries have no established laws and guidelines on importation and use of ICT apparatus.

- Network providers and equipment dealers bring any ICT equipment of choice.

- We mostly rely on FCC and IEC marks to verify equipment conformance.

- Now most ICT equipment in Africa come from Asia.
  - Majority of them have no Mark.

- This is not the case for the developed world

- Resulted in standardization gap b/n developed and Developing countries

HIGHLIGHT OF CHALLENGES DUE TO LACK OF C & I TESTING

❖ The real Problems

❑ High cost of proprietary equipment
  ➢ Core and backhaul networks

❑ Problem of end user affordability

❑ Non interoperable hardware devices and software applications
  ➢ core network
  ➢ Poor QoS delivery

❑ Proliferation of sub-standard ICT devices and terminals as a result of
  ➢ lack of testing labs in developing markets,
  ➢ Lack of effective monitoring of the influx of ICT equipment
  ➢ Lack of understanding of the test reports and different interpretations
  ➢ capacity building challenges (personnel)
  ➢ regulatory non compliance

REAL PROBLEMS

❑ Silent policy and regulatory framework
  ➢ None existence of MRAs

❑ Poor market surveillance capabilities
  ➢ Regulatory vacuum

❑ Difficulty in Type approving and certifying equipment due to
  ➢ different interpretations of specification by manufacturers

THE NEGATIVE IMPACT FOR AFRICAN ECONOMIES

- Increase in ICT digital divide and standardisation gap; counter productive to ITU–T Res. 44

- Inadequate technical and financial capabilities

- Absence of C& I testing do not facilitate the uptake of technology and services

- Less consumer confidence in Regulatory bodies

- Some obsolete and legacy ICT equipment
    - Results in high cost of maintenance

USE CASES IN AFRICA_MOBILE NETWORKS

Equip. Category [1]	Description of the problem [2]	Reasons [3]
OMC	Signaling	no conformity to standards
Announcement Machine for subscribers	Signaling	no conformity to standards
IN	Partial/Total non conformity for expected functionalities	no conformity to standards
NGN (RNC/MGW)	Software	poor interoperability equipment different vendors
Mobile Switching Center	Signaling	poor interoperability equipment different vendors

SITUATION IN GHANA

- Legal mandate;
  - NCA Act mandates NCA to develop national standards for the ICT industry
  - We are required to type approve and issue certificates to ICT vendors.

- However we do not have own local standards for ICT
  - Only rely and accepts equipment that have been certified by FCC or ETSI/IEC et…
  - Lack of testing labs has made testing and certification of uncertified ICT equipment impossible.
  - Post Market Surveillance is also a huge challenge.

ITU-T MANDATE TO BRIDGING THE STANDARDISATION GAP

- ITU-T is mandated to bridge the standardization gap between developing and developed countries

- Actions include:
  - Measuring the Gap
  - Improve standards making capabilities
  - Assisting in enhancing efforts in standards applications
  - Human resource capacity building

RELATED ISSUES_ WTSA-08 RESOLUTION 76

- **"Studies related to conformance and interoperability testing, assistance to developing countries, and a possible future ITU mark programme"**

Contribution sent to WTSA-08, J'burg, by African region and vehemently defended for adoption

STANDARDIZATION GAP

- The Standardization Gap Challenge outlined in Resolution 76 (Johannesburg, 2008):
  - The disparity of voluntary standardization;
  - The disparity of mandatory technical regulations; and
  - The disparity of conformity assessment.

RES.76: INSTRUCTS THE DIRECTOR OF TSB

- Identify and prioritize the problems faced by developing countries related to achieving interoperability of ICT equipment and service.

- Study the cost of setting up and location of testing facilities.

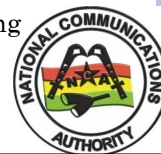- Measures to build the necessary human resource capacities

RES. 76 RESOLVES

- ITU-T Study Groups to develop ITU-T Recommendations taking into account conformance and interoperability issues

- Conformance and Interoperability testing requirements shall provide for verification of the parameters defined in ITU-T Recommendations

- ITU-T to develop a programme to assist developing countries in capacity-building, training opportunities, and in the creation of regional/sub-regional test facilities

CONCLUSIONS ON RES. 76

- Res. 76: if implemented fully shall address the needs of DCs
  - areas of conformance, interoperability testing & verification

- Conformance could serve as 1st step towards achieving interoperability

- Identify locations for the establishment of ICT Labs

- Guaranteed training programmes and capacity building opportunities

ADOPTION OF ITU CONFORMITY DATABASE AND BENEFITS

- Better exposure for vendors

- Opportunity for small and emerging vendors

- Higher probability of interoperability

- Assist better interpretation and understanding of standards, testing and test results

- Facilitate development of MRAs, Regulatory and Policy framework

ESTABLISHMENT OF
CONFORMITY TEST CENTRES
IN AFRICAN COUNTRIES - WAYFORWARD

- African Governments should commit resources towards the establishment of accreditation bodies and conformity test centres .

- Need to build partnerships with relevant organisations: UNIDO, ISO, IEC and ILAC.

- Government can collaborate with the private sector in a Public-Private Partnership to establish conformity test centres.

- Ghana wants to be considered as candidate to host the testing lab for West African region . We welcome any PPP initiative

POINTS TO CONSIDER

- Africa group should support the TSB efforts in implementing C&I database program
  - to guide our national standards development

- Let's continue to dialogue
  - until Res. 76, 44 and 177 become fully implemented at least for the benefit of DC.

THANKS!