

Regional Development Forum 2008

“Bridging the Standardization Gap in Developing Countries”

Accra, Ghana, 26-28 May 2008



Wrap-up and Conclusion

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Introduction

- This presentation, prepared during the seminar to reflect the key messages in some 30 presentations totalling over 650 PowerPoint charts, aims to provide a summary of the key points of this seminar, and to provide an aid to more in depth review of the material contributed by the speakers.



Key Overall Messages (1/2)

- This event is one of a series of regional events on “Bridging the ICT Standardization and Development Gaps”
 - Increase interaction between Africa and ITU-T and -D!
- Knowledge is key to moving forward; technology is a means and not an end
 - Affordable ICT positively impacts economic development
 - ICT Standards are critical
- Africa clearly recognizes trends towards greater connectivity, greater use of communications enabled applications, need for ubiquitous broadband access
 - Taking steps to make it happen

Key Overall Messages (2/2)

- Africa looks to ITU-T as a global focal point for ICT standards, bringing together the many aspects that are being worked in various SDOs, fora and consortia
- Africa should take a larger role in ITU standards
 - Participation is essential to influence in standards development
 - Priorities may be set top down but work is driven from bottom up through participation and contributions
- WTSA-2008: opportunity to influence ITU-T work program and associated Study Group structure to address needs
- ***GET INVOLVED!***

Opening Remarks: Welcome and Keynote addresses

- Master of Ceremonies:
 - **Godwin Avenorgbo**, Retired Director of Radio, Ghana Broadcasting Corporation
- Chairman of the Forum:
 - **Jude Arthur**, Chairman of the Board of the National Communication Authority, Ghana
- Welcome and Keynote addresses
 - Opening remarks: **Malcolm Johnson**, Director of TSB
 - Welcome address: **Akossi Akossi**, Secretary General of the African Telecommunications Union (ATU)
 - Keynote address: **H.E. Dr. Benjamin Aggrey Ntim**, Minister of Communications

Opening Session: Standardization and ICT development in Africa

- Session Chairman: **Akossi Akossi** (Secretary General, African Telecommunications Union)
- Speakers:
 - Eng. **Thomas A. Senaji** (Wells Group): Making Sense of the Linkage between ICT standardization and Development: the Case of Developing Countries
 - Operators must be more assertive in ITU standards work
 - NGN migration: operators need to participate in standards
 - Regulation needs to keep pace with ICT convergence
 - **Massimo Migliuolo** (Cisco): New business models and partnerships for productivity, competitiveness and innovation gains
 - Pillars include education, infrastructure, collaboration, ...
 - Broadband access is essential to realizing the benefits of the connected world



Opening Session: Standardization and ICT development in Africa

- ▶ **John Visser** (for **Bilel Jamoussi**, Nortel): One Laptop Per Child and “Connect the World”

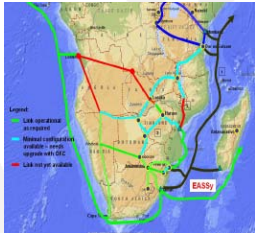
NORTEL



- OLPC provides the tool to access the world's education resources via the Internet
- Revolutionizes education of children in developing countries
- Designed for children, mesh networked, learn IT while learning other skills, ...

- ▶ **John Saidi Kimbe** (Southern Africa Telecommunications Association): e-Readiness in the Southern African Development Community (SADC)

- e-Readiness is needed to take advantage of “e-everything”
- Benefits from ICT come with positive attitudes, affordability and PC penetration to build skills



SATA

Southern Africa Telecommunications Association

Session 1: Overview of ITU activities: how to participate in ITU work

- Session Chairman: **John Visser** (ITU-T SG 19 Chairman)

- Speakers:

- ▶ **Tim Kelly** (ITU/TSB) Bridging the standardization gap

- Developing countries: ~25% of contributions but can become much more involved - China as an example
- Standardization development ladder
- Engage with ITU and its membership: get involved!

- ▶ **Chali Tumelo** (ITU/BDT) ITU-D Overview: Doha Action Plan (WTDC-06)

- Overview of Doha Action Plan, programmes, initiatives
- Service providers need to contribute to convergence to fully understand and be part of the industry's evolution
- Time to start is now



Session 1: Overview of ITU activities: how to participate in ITU work



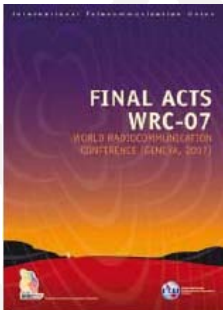
➤ **Seydoux B. Bassavé** (ITU/BDT): An African challenge to bridge the digital divide

- Challenges: translate commitments into real action: high bandwidth backbone to address limited internet connectivity, regulatory reform, competition
- More than just money: Africans need to deepen their standards knowledge: participate!



➤ **Fabio Leite** (ITU/BR): ITU-R Overview: ITU-R activities relevant to Africa

- GE-06: digital broadcasting, A to D transition
- WRC-07: Radio Regulations: scale of event, African involvement, regional preparations
- WRC-11: preparations: may be as big or bigger
- ITU-R Study Groups: participate and contribute



SESSION 2: African development issues and ICT implementation

- Session Chairman: **Patrick Mwesigwa** (Uganda Communications Commission)



- Speakers:



- ➔ **Ali Drissa Badiel** (ITU/BDT): ICT applications and network development

- Broadband networks will be used primarily for internet
- “e-everything”: migrate towards IP-based NGNs
- Human capacity, infrastructure building are basics



- ➔ **Désiré Karyabwite** (ITU/BDT): Activities of the ITU-D on ICT

- Challenges: internet backbones, QoS, financing, designing the core network, appropriate International Bandwidth
- Access Strategies: internet access, (pre-)WiMAX
- Broadband Licensing



SESSION 2: African development issues and ICT implementation

- ▶ **Shem Ochuodho** (Africa Regional Computing Centre, Kenya): ICTs for employment creation, productivity enhancement and poverty reduction in Africa
 - Prerequisites: policies and regulations; skilled people; affordable and reliable infrastructure; content; good business models; standards; partnerships
 - “e-Leadership is King!”
- ▶ **John Saidi Kimbe** (SATA): Potential of ICT standards in an emerging innovative ICT environment: Case of SATA

Industrial Revolution: steam engine invented in 1712 and electricity harnessed in 1831, deployment followed

- Digital Revolution: rapid development of ICT and Telecommunications today
- Encounter standards every day!
- International standards are best for regulation, acceptance of products in marketplace, cost reduction, increased trade



Digital Divide



SESSION 3: Current ITU-T standardization hot topics

■ Session Chairman: **Tim Kelly** (ITU/TSB)

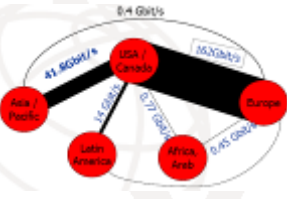


■ Speakers:



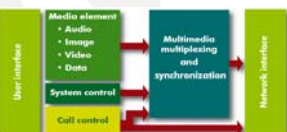
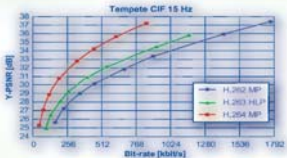
➤ **Saburo Tanaka** (ITU/TSB): Overview of ITU-T, highlighting Study Group 3 activities

- Studying accounting rate reform, network externalities, mobile termination charges, international Internet connectivity, NGN tariff principles: need changes
- New systems difficult to agree, difficult to deploy quickly



➤ **Pierre-André Probst** (Chairman, ITU-T SG 16): Current ITU standardization hot topics: Multimedia

- Widely used coding standards: MPEG-2 and H.264/MPEG-4
- High interest: contributions and participation
- Many new technology developments: opportunities for developing countries as new standards are defined
- Accessibility a key element of work program

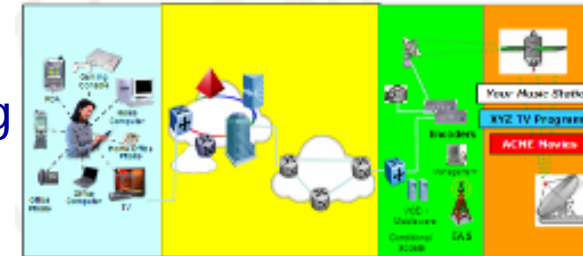


SESSION 3: Current ITU-T standardization hot topics



▶ **John Visser** (Chairman, ITU-T SG 19): IPTV Standards

- TV evolving from passive to active: IPTV is part of converged ICT and NGN
- Awareness essential to forward planning
- FG now IPTV-GSI recognizing cross SG aspects, extensive interaction with external SDOs, fora, etc.

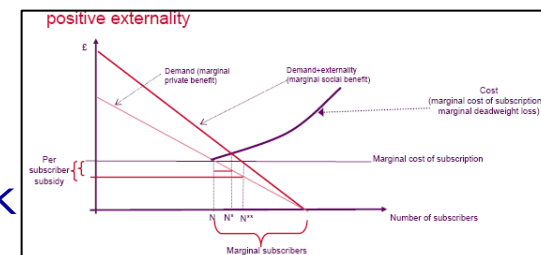


▶ **Tim Kelly** (ITU/TSB): ICTs and climate change

- Deferred to Session 8

▶ **Vince Affleck** (OFCOM, UK): Network externalities: work in ITU-T SG 3

- Explanation of concepts in “externalities” and how being addressed in SG 3 Rapporteur Group
- Recommendation for premium on traffic from developed to developing country to assist in extending dev’g country network



SESSION 4: International radiocomm. standards and guidelines

- Session Chairman: **Bruce Gracie** (Canada)
- Speakers:

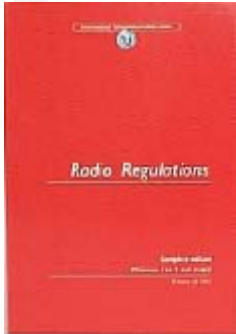


➔ **Fabio Leite** (Deputy Director, BR): ITU Radiocommunication Standardization Activities

- Overview ITU-R, WRCs, Radio Regulations
- Topics: IMT-2000, IMT-Advanced, Intelligent Transport Systems, digital broadcasting, mobile TV, remote sensing
- National structures to coordinate, prepare for, follow-up participation in standards bodies to protect their interests

➔ **Bruce Gracie (Canada)**: Global Standards Collaboration (GSC)

- Leaders exchange info on current standards work, collaborate in planning future standards work, support ITU as pre-eminent global telecom, radio standards body
- GSC-14 (2009, host: ITU): opportunity for exploring bridging standardization gap



Canada



SESSION 4: International radiocom. standards and guidelines



➔ **Fabio Leite** (Deputy Director, BR) ITU Radiocommunication Sector (ITU-R)

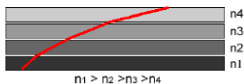
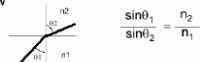


- Overview of ITU-R structure and activities
- ITU-R Study Groups: structure and responsibilities
- ITU-R publications: Radio Regulations, ITU-R Recommendations, Handbooks, etc.

➔ **John Tandoh** (Ghana): Electromagnetic Compatibility Standards

- Aim to raise awareness of need for more emphasis on Electromagnetic Compatibility Standards
- Showed typical structure of a national radio advisory technical committee
- Reviewed Doha Resolution 47, Programme 3: Human Resource Building and how these may be leveraged for EMC education

Snell's Law



Session 5: Security and regulatory issues

- Session Chairman: **Bernard Forson** (National Communications Authority)



- Speakers:

- **Paul Inglesby** (Telekom SA): Security and regulatory issues related to electronic communication in S. Africa

- Many working on security standards: alignment required

- Regulatory requirements: strategic importance but full compliance still in progress

- Malicious Call Id, Anon Comm. Rejection; Number Portability; Lawful Interception; Emergency Services

- **Tim Kelly** (ITU/TSB:) Cybersecurity, Combating Spam and Identity Management

- SG 17: Lead SG on telecom security; Focus Group on identity Management

- ITU-D Workshops: ongoing



Session 5: Security and regulatory issues



▶ **Pierre-André Probst** (Chairman, SG 16) Security and Regulatory issues: Network Aspects of Identification Systems (NID)

- TSAG established JCA-NID in mid-2006: multi SG item
- RFIDs evolving to intelligent devices: need networking
- Will speed up evolution to the “Internet of things”
- Consider together with Identity Management (IdM)



▶ **Joseph Kwabena Amoako** (Ghana Atomic Energy Commission) Electromagnetic Radiation from Mobile Phones and their base stations: Health Effects

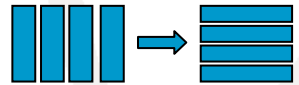
- Ongoing issue in public’s mind: continuing education effort
- Consult communities on placement of towers, etc.
- Actual RF levels well within ICNIRP, WHO guidelines
- Biggest health hazard: use of mobile while driving

Session 5: Security and regulatory issues

- ▶ **Bernard Forson** (National Communications Authority, Ghana): Communication and regulation in the convergent environment



- Convergence brings advantages but also challenges for all stakeholders
- Light regulation should be used in a competitive environment to address market imperfections
- Stand in the way of market and technological forces and risk being run over with potentially disastrous consequences



SESSION 6: NGN technology, migration scenarios and strategies

- Session Chairman: **Ingrid Poni** (Dept. of Communications, South Africa)



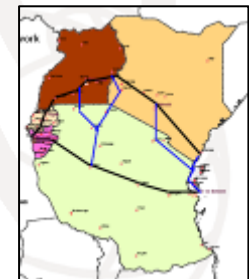
- Speakers:

- ➔ **Paul Inglesby** (Telekom South Africa): Next Generation Network deployment scenarios and migration strategies

- Looking for global consistency to obtain economies of scale
- Sees ITU-T as the place to bring work from elsewhere
- Able to participate in some fora, can monitor others on an ongoing basis: difficult to stay on top of everything

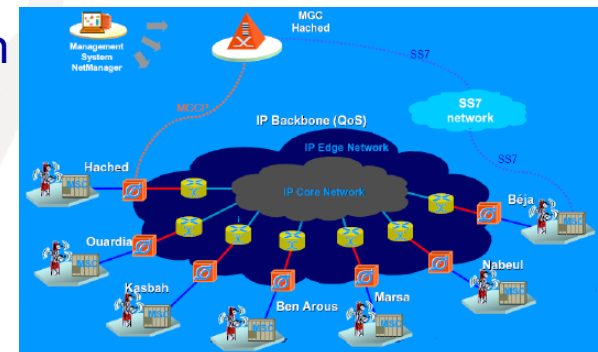
- ➔ **Shem Ochuodho** (Africa Regional Computing Centre, Kenya): The East African Broadband Infrastructure Network (EAC-BIN): a Platform for Migration to NGN

- Liberalization: growth, clear need for broadband
- Implementing plans for interconnection: international thru rural access with short, medium, long term strategies



SESSION 6: NGN technology, migration scenarios and strategies

- **Raky Sada Wane Niang** (SONATEL): The East African Broadband Infrastructure Network (EAC-BIN): Scénario et Stratégie de migration vers les réseaux NGN
 - Need broadband access supported with interconnection of national networks
 - Broadband infrastructure should be adapted to the new environment, with suitable regulation supporting converged services at attractive prices
- **Noureddine Zaouali** (CERT, Tunisia): Stratégies de migration vers les réseaux NGN Expérience Tunisienne
 - Reduced complexity for users and operators: lower OPEX, declining IP costs, more service opportunities
 - Smooth migration: coexistence, then integration; convergence: business, networks, terminals, services
 - VoIP: international traffic to France, Italy in 2004, national in 2006



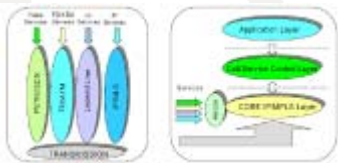
SESSION 6: NGN technology, migration scenarios and strategies

➤ **David Mettle** (Ghana Telecommunications Company, Ltd.) NGN Migration: Scenario and Strategy

➤ A key concept of the NGN vision: decouple service intelligence from hardware providing call connection and transport: shift from vertical silos to horizontal layers

➤ Ghana Telecom's migration strategy:

- Gradual replacement of old equipment as come to end of life
- Introduce network elements with open interfaces and compatible with NGN Architecture



WRAP-UP SESSION

- Session Chairman: **Jude Arthur** (Chairman of the Board of the National Communications Authority, Ghana)



- Speakers



- ▶ **John Visser** (Chairman, ITU-T SG 19): Wrap-up and conclusion

- This presentation

- ▶ **Malcolm Johnson** (Director of TSB)



- Closing remarks on behalf of ITU