ITU-D Regional Development Forum for the Asia Pacific Region
"NGN and Broadband, Opportunities and Challenges"
Yogyakarta, Indonesia, 27 – 29 July 2009

How to bridge the standardization gap

Do Xuan Binh,
Officer, Department of Science and Technology, Ministry of Information and Communications (MIC), Vietnam

Yogyakarta, Indonesia, 27-29 July 2009

Standardization gap & Digital divide

- What is the standardization gap
  - The standardization gap can be defined as disparities in the ability of developing countries*, relative to developed ones, to access, implement, contribute to and influence international ICT standards, specifically ITU Recommendations.
  - http://www.itu.int/ITU-T/gap

  * These include the least developed countries, small island developing states and countries with economies in transition.
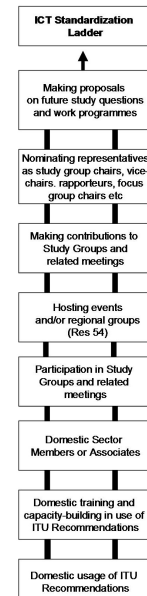
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2

1

Standardization gap & Digital divide

- The development of the "gap" is a cause and manifestation of the wider digital divide

  o Deploying networks
  o Providing services
  o Promoting technologies
  o Influencing ICT international standards

⇒ Let's share/ give assistance

for common understanding, applications and interests

ICT Standardization Ladder

Making proposals on future study questions and work programmes

Nominating representatives as study group chairs, vice-chairs. rapporteurs, focus group chairs etc

Making contributions to Study Groups and related meetings

Hosting events and/or regional groups (Res 54)

Participation in Study Groups and related meetings

Domestic Sector Members or Associates

Domestic training and capacity-building in use of ITU Recommendations

Domestic usage of ITU Recommendations

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Roles of ITU-D

- **RESOLUTION 123 (REV. ANTALYA, 2006)**
  Bridging the standardization gap between developing and developed countries

  … resolves to instruct the Secretary-General and the Directors of the three Bureaux
  1 to work closely with each other … that assist in bridging the standardization gap between developing and developed countries;
  2 to maintain, to the extent practicable, a close coordination mechanism among the three Sectors at the regional level through ITU regional offices;
  3 to further collaborate with the relevant regional organizations and support their work in this area

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4

Roles of ITU-D

- **RESOLUTION 47 (DOHA, 2006)** Enhancement of knowledge and effective application of ITU Recommendations in developing countries

  … instructs the Director of the Telecommunication Development Bureau, in collaboration with the Directors of the Telecommunication Standardization Bureau and the Radiocommunication Bureau

  1   to promote participation in training courses and workshops on best-practice application of ITU–T and ITU–R Recommendations for developing countries;

  2   to establish a database containing information on new technologies that are standardized and develop guidelines on applying ITU–T and ITU–R Recommendations.

Why NGN and broadband ?

- High population in developing countries create potential demand for ICT services
- NGN and broadband for ease of expanding networks and providing new services
- Several countries in Asia-Pacific Region hold the initiative in standardizing and applying NGN

The fact is that...

- **Many variations/ways of deploying NGN**

What's next?

BcN
21CN
TGN
...

3GPP/TISPAN IMS

ITU-T NGN Release x
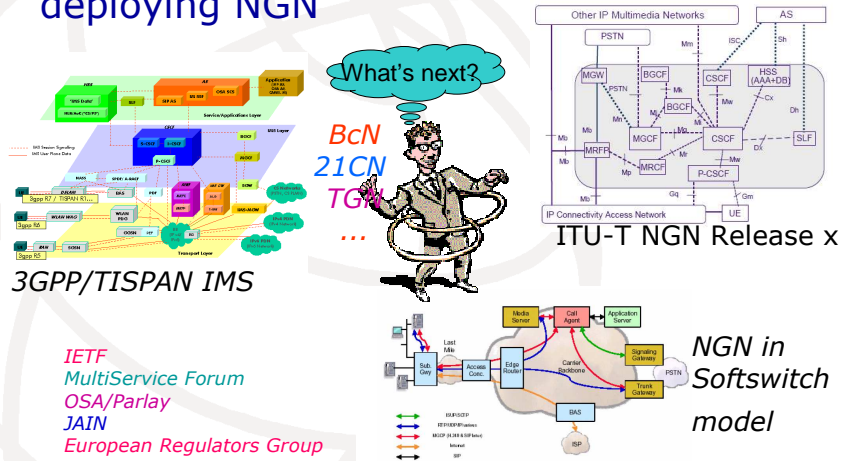
IETF
MultiService Forum
OSA/Parlay
JAIN
European Regulators Group

NGN in Softswitch model

Developing countries - Perspective

- **Overall configuration and expected functions of NGN**
  - Common and widely accepted
  - Fixed-mobile convergence
  - Diversity in access method but sharing common core network and control system
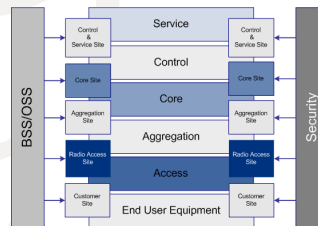
Developing countries - Perspective

- **Principle for NGN structure**
  - Providing data and voice services over a single telecom infrastructure
  - Supporting different access technologies
  - Distributed control system
  - Open control system
  - Providing service-neutral network infrastructure
  - Advanced security mechanism
  - Smooth and economic migration from legacy network and meet customer demands
  - Fixed- Mobile Convergence.

NGN – Challenges and opportunities

- **NGN or not?**
  - Customer, market, benefit
  - Time-to-market, life-cycle
  - Cost for network operation and maintenance
- **Migration to NGN**
  - Strategy/plan for migration
  - Time for migration
  - Reuse of legacy infrastructure
  - Expansion of the bandwidth
- **NGN business and exploitation**
  - Business strategy
  - Service marketing
  - Organizational model

Still common concerns !

ITU-D activities and efforts on BSG

- ITU- D trainings, workshops, seminars and regional forums for AP region

Network Infrastructure & Bridging the Standardization Gap	Venue, date
ITU/MIC Training on Bridging the Standardization Gap	Tokyo (Japan), 15-19 December 2008
ITU Regional Development Forum 2008: "Bridging the ICT standardization gap in developing countries" for the Asia-Pacific Region	Hanoi (Vietnam), 15–17 September 2008
ITU/MIC Training on Bridging the Standardization Gap	Tokyo (Japan), 18-22 June 2007
APT-ITU Workshop on NGN Planning	Bangkok (Thailand), 16-17 March 2007
ITU-BDT Seminar on Network Planning	Bangkok (Thailand), 11-15 November 2002

ITU-D activities and efforts on BSG

- ITU-D SG1 questions (1/2)

Question	Description
6-2/1	Regulatory impact of next generation networks on interconnection
7-2/1	Regulatory policies on universal access to broadband services
10-2/1	Regulation for licensing and authorization of converging services
12-2/1	Tariff policies, tariff models and methods of determining the costs of services on national telecommunication networks, including next-generation networks

ITU-D activities and efforts on BSG

- ITU-D SG1 questions (2/2)

Question	Description
18-1/1	Domestic enforcement of telecommunication laws, rules, and regulations by national telecommunications regulatory authorities
19-1/1	Implementation of IP telephony in developing countries
20/1	Access to telecommunication services for people with disabilities
21/1	Impact of telecommunication development on the creation of employment
22/1	Securing information and communication networks: Best practices for developing a culture of cybersecurity

ITU-D activities and efforts on BSG

- ITU-D SG2 questions (1/3)

Question	Description
9-2/2	Identification of study topics in the ITU-T and ITU-R study groups which are of particular interest to developing countries
10-2/2	Telecommunications for rural and remote areas
11-2/2	Examination of terrestrial digital sound and television broadcasting technologies and systems, including cost/benefit analyses, interoperability of digital terrestrial systems with existing analogue networks, and methods of migration from analogue terrestrial techniques to digital techniques

ITU-D activities and efforts on BSG

■ ITU-D SG2 questions (2/3)

Question	Description
14-2/2	Telecommunications for e-health
17-2/2	Progress on activities for e-services/applications in the world
18-1/2	Implementation aspects of IMT-2000 and information-sharing on systems beyond IMT-2000 for developing countries
19-1/2	Strategy for migration from existing networks to next-generation networks for developing countries

ITU-D activities and efforts on BSG

■ ITU-D SG2 questions (3/3)

Question	Description
20-2/2	Examination of access technologies for broadband telecommunications
22/2	Utilization of ICT for disaster management, resources, and active and passive space-based sensing systems as they apply to disaster and emergency relief situations
23/2	The unique telecommunication/ICT needs of small island developing states (SIDS)
Resolution 9	Participation of countries, particularly developing countries, in spectrum management

ITU State Members - AP region

- 32 developing countries
- 5 developed countries

* LDCs (13)

Afghanistan
Bangladesh
Bhutan
Cambodia
Kiribati (SIDS)
Samoa (SIDS)
Solomon Is. (SIDS)
Tuvalu (SIDS)
Vanuatu (SIDS)
Lao, PDR
Maldives
Nepal
Myanmar

* Small Island Developing States (+5)

Fiji
Marshall Islands
Micronesia
Nauru
Tonga

* Low Income States (10)

PNG (SIDS)
D.P.R. Korea
India
Indonesia
Mongolia
Pakistan
Philippines
Sri Lanka
Vietnam
[Timor Leste:non MS]*

* The Rest (9)

China/Hong Kong
Iran
Malaysia
Thailand

(Developed countries)
Australia
Japan
New Zealand
R.O. Korea
Singapore
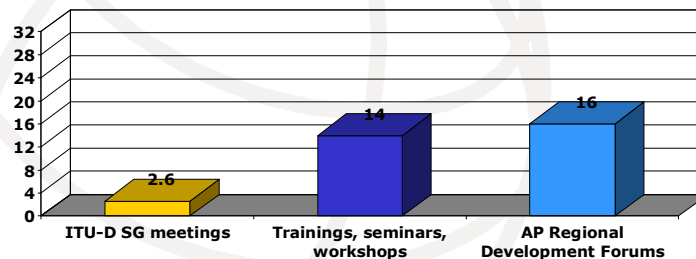
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Source: ITU and World Bank, July 2008

17

Participation in ITU-D events

- **Presence of AP developing countries in ITU-D events...**
  - on 10 SG meetings in 2009:   8.1%
  - on 4 trainings, seminars, workshops: 43.8%
 - on 1 Regional forum: 50%

	ITU-D SG meetings	Trainings, seminars, workshops	AP Regional Development Forums
value	2.6	14	16

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18

ITU-D SG outputs

- ITU-D SG outputs...
  - Reference materials and guidelines on e-services/ICT applications for developing countries http://www.itu.int/ITU-D/cyb/
  - Guidelines on the Smooth Transition of Existing Mobile Networks to IMT-2000 for Developing Countries (GST) (under revision) www.itu.int/publ/d-stg-sg02.18-1-2006/en
  - Best Practice Guidelines for the Broadband Access in Developing Countries (currently being developed) http://www.itu.int/md/D06-RGQ20.2.2-C-0028/en
  - Proposals for revision of the Resolution 9 (under preparation) http://www.itu.int/ITU-D/study_groups/SGP_2006-2010/JGRes9/index.html
  - Others (reports, draft reports, questionaires...)

Oh, great! Let's see.
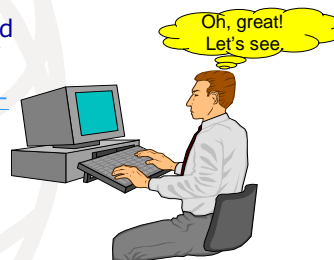
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19

Ways forward...

- Expectation of ITU-D activities
  - to continue to collect views, questions, requirements of ITU Member States (especially developing countries) in the region for further study
    - By conducting surveys, questionaires, workshops, seminars, etc.
    - NGN and broadband should be a great concern!
  - to collaborate with ITU-R and ITU-T on standardizing NGN and broadband networks
  - to collaborate with regional standard organizations and fora (e.g. ASTAP), toward common standards
  - to allocate more fund to support developing countries (for trial projects in developing countries, fellowship for participants to ITU-D SG meetings)

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20

Bridging the gap - How?

- ITU-D Regional Office:
  - to notify Member States of ITU-D outputs, on a regular basis and by using appropriate means such as online and free access database, sending liaison to Member States contact points, etc.
  - to collaborate and support members in holding ITU-D SG meetings in developing countries in order to facilitate the attendance of developing countries; teleworking could be encouraged.

Bridging the gap - How?

- Member States and industry:
  - to join ITU-D events, raise positions and share experiences for the common benefit of developing countries
  - to encourage industry to assist developing countries
  - in conducting consultation programs focused on potential technologies
  - in developing guidelines on how to apply ITU-T Recs. with particular emphasis on practical issues

THANK YOU FOR YOUR ATTENTION!

Do Xuan Binh
Department of Science and Technology
Ministry of Information and Communications (MIC), Vietnam
Tel.: +84 4 3 822 6580
Fax: +84 4 3 943 7328
Email: dxbinh@mic.gov.vn

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23