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Linkage between ICT standardization and development, the case of developing country

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ICT development in Vietnam

- Operators:

Fixed operators	Mobile operators
- VNPT	- Mobiphone (VMS)
- EVN Telecom	- Vinaphone
- Viettel	- Viettel
- SPT	- SPT
- Hanoi Telecom	- Hanoi Telecom
	- EVN Telecom
	- Gtel

ICT development in Vietnam

- Total telephone subscribers: 66.7 millions with the density of 78.1/100 capita

- Mobile telephone subscribers: 52.5 millions with the density of 61.5/100 capita

- 20.24 millions internet users with the usage rate of 23.7 %

- 1.7 million broadband subscribers with the density of 2%

Technical aspects of telecom networks

- Fast development of Telecom sector over the past years with the participation of many operators
- 7 mobile operators with the application of both GSM and CDMA
- Two most biggest operators (VNPT and Viettel) taking consideration of migrating current networks to NGN
- 3 3G licences to be granted in the coming time to 3 operators
- New technologies such as WiMAX in trial phase, to be deployed soon

Role of standardization in ICT development

- Playing crucial role in the development of Telecom sector
- Good standards providing impetus for ICT development
- Lack of relevant standards causing negative impacts on ICT development
- Examples:
  - *Network interconnection*
  - *QoS control*
  - *NGN*

Standardization concerns

- Standardization process not catching up the pace of network development and practical requirements

- Lacking sufficient standards for new technology deployment (NGN, 3G and convergence technologies)

- Mandatory standards: QoS, safety, integrity and interoperability in multi-vendor and multi-operator environment

- Voluntary (industry) standards: setting up technical requirements for equipment procurement standards

Standardization Process in Vietnam

- MIC setting standardization policies, strategies and plans
- On the basis of practical requirements and new trends of technologies, putting forth the plan for standard development annually
- Raising standardization issues and then signing contracts with research institutes and relevant agencies to draft technical standards as required to address raised issues
- MIC promulgating mandatory standards, funding standardisation activities with regulatory implication
- Manufacturers, operators,... producing standards for their own use following MIC's policy and guidelines

Standardization Process in Vietnam

- Standards being drafted on the basis of and referred to international standards and recommendations by famous standard organizations (ITU, ETSI....)
- The process of drafting and issuing standards in accordance with the law on standard and quality control:
    - *Committees of experts being established to approve drafted standards*
    - *Technical standards signed and issued by Minister*
    - *All stakeholders being encouraged to participate in the drafting process of standards*
- At present, about 200 standards issued

Difficulties in Standardization Activities

- Lack of standard-making capabilities
- Lack of experts, most of experts from operators and research institutes, not from manufacturers and vendors
- Limited manufacturing capability causing the lack of expertise in making standards
- Limited fund for standardization activities
- Low participation of business sector

Difficulties in Standardization Activities

- Difficulties in creating orientations for standardization activities: Many standardization organizations issuing standards and recommendations such as IETF, 3GPP, IEEE, ITU, ETSI…, Getting confused in choosing referred standards in the process of drafting and issuing standards

- Difficulties in drafting standards for new technologies such as NGN, 3G, convergence technologies

ITU's efforts in bridging standardization gap

- Resolution 123 of the Plenipotentiary Conference: Instructing the Secretary-General and the Directors of the three Bureaux to work closely with each other in pursuing initiatives that assist in bridging the standardization gap

- Resolution 44: Specifying the action plan for the implementation of resolution 123 with 5 programs:
  - *Programme 1: Strengthening standard-making capabilities*
  - *Programme 2: Assisting BDT in enhancing efforts in respect of standards application*
  - *Programme 3: Human resource building*
  - *Programme 4: Flagship groups for bridging the standardization gap*
  - *Programme 5: Fundraising for bridging the standardization gap*

Benefits gained by developing countries

- Free download of ITU recommendations and document:
  - Beneficial to experts and standardization activities;
  - Supporting the participation of developing countries in the standardization process
- Engaged more actively in ITU standardization activities through participating ITU conferences, forums organized in the region: A number of ITU-T/ITU-D regional workshops were held
- Many experts and standard-makers had opportunities to attend ITU workshops on new technologies and ICT standards

Benefits gained by developing countries

- Tools have been given to Standardization Experts to remotely participate ITU activities (online working and exchanging views, attending tele-conferences).

- More guidelines and instructions were received from ITU

- A progressive increase in the number of Study Group officials from developing countries

- Benefited from the fund established for bridging standardization gap

Proposals for ITU activities

- Summarized assessment on the implementation results of bridging standardization gap in the period 2004-2008

- Appropriate adjustments to Operational Plan in favor of Resolution 44 implementation

- Resolution 123 and Resolution 44 checklist that would facilitate the three bureaus, the Study Groups,... to take those Resolutions into account in their operation

- Resolution 123 and Resolution 44 implementation items in the Work program for post WTSA 08 period

Proposals for further implementation of Resolution 44

- Conducting consultancy projects to support developing countries in the development of standardization plans, strategies, policies

- Reviewing/assessing the existing national standards of developing countries and determining whether they are consistent and in accordance with the current ITU-T Recommendations

- Developing a set of guidelines on how to apply ITU-T Recommendations in the process of drafting and issuing standards, with particular emphasis on Recommendations having regulatory and policy implications

Other specific Proposals for BSG

- Creating implementation guides in deploying new technology and services:
  - *Making preparation of guiding documents, at the Study question level, to assist developing countries in the implementation of ITU-T Recommendations*
  - *Giving clear guidelines and recommendations to assist   developing countries in seeking cost effective solutions of smooth migration from existing network into NGN, deploying successfully and efficiently NGN based broadband network infrastructure*
  - *Producing the principle guidelines of standards for NGN migration (fix-mobile convergence solutions, interoperability of multiple sub-systems, end-to-end connectivity,...).*

Other specific Proposals for BSG

- Building and maintaining a database containing information on new technologies that are standardized to help developing countries in the process of making standardization orientations and plans

- Organizing more training courses on the application of specific Recommendations, especially courses on new technologies such as NGN, 3G…

- Providing experts and advices to standardization bodies in developing countries

Thank you for your attention