



***ICT/IMT-2000 Seminar***

*Abidjan, 9-12 September 2002*

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***ITU-D studies on the evolution and  
migration towards IMT-2000  
(Question 18/2)***

# BDT Activities on IMT-2000



- **A detailed Work Plan on the implementation of Resolution 43 is going to be finalised inside BDT for year 2003.**
- **The Objectives for 2003 –2006 are going to be finalized as well.**

# Implementation of WTDC-02 Resolution 43



**Seminars, Workshops, Production of Handbooks and Guidelines, Cooperation with Regional Organizations, ITU-D SG's Activities, Direct Assistance via BDT Unit/Field Offices, will be part of the BDT Work Plan to implement Resolution 43**



# Implementation of WTDC-02 Resolution 43

- Resolution 43 is supposed to be implemented within the Programs and Direct Assistance as approved during last WTDC-02.

# Results of the studies on Question 18/2



- The first Rapporteur's Group Meeting on Q.18/2, was held in Geneva, 24-25 June 2002.
- Second Meeting during ITU-D SG2, 2-6 September 2002

# Results of activities on Question 18/2



## Progress of the work

- **Important issues: the economic impact of third generation mobile networks (3G), cost affordability of customer equipment, experience of developed countries, special needs of developing countries (case studies for example), cost of migration to third generation, capabilities of fixed networks to take 3G roamers.**
- **Daft guidelines for a smooth migration for mobile networks to IMT-2000 and beyond should be prepared by mid-2004.**

# Results of the studies on Question 18/2



## Progress of the work

**-There might be no unique solution for migration for developing countries. Migration might be different than for developed countries due to, among other reasons, the penetration levels of mobile networks. The results of the work of the ITU-T and ITU-R Sectors as well as different technologies are under considerations**

**- Cost affordability for end users will be a key focus of Question 18/2 work. The study should take into account also the needs of developing countries**

# Results of studies on Question 18/2



## Progress of the work

**-Licensing for third generation (working under the ITU Secretary General's new initiatives programme) documents are available on the web at the following web address (<http://www.itu.int/osg/spu/ni/3G/workshop/index.html>).**

**The final report from the last ITU-Workshop (2001) is the core of the relevant brochure. An official database on licensing for IMT-2000 is under development in ITU.**



# Results of the studies on Question 18/2



## Progress of the work

- **Initial Promotion of the work is done by the BDT Administrative Circular CA/10, 5 July 2002**
- **A living document prepared by the BDT Secretariat in consultation with the ITU-T and ITU-R Sectors and contains a listing of documents/recommendations/deliverables and texts related to IMT-2000 is maintained being updated and supplemented whenever is necessary**

# Results of the studies on Question 18/2



Summary of the aspects that have to be investigated during the progress of the work of Q.18/2:

- Identification of special needs of developing countries regarding migration
- Identification of Migration techniques
- Cost of network migration for the operator
  - using of existing infrastructures
- Cost affordability for end users
- Experience of developed countries when choosing current or future migration paths

# Results of the studies on Question 18/2



- Possibilities of using first and second generation mobile spectrum for IMT-2000 and beyond
- Interoperability among first and second generation mobile system and IMT-2000 systems and beyond
- Interoperability among IMT-2000 technologies
- Extension of IMT-2000 services regardless of the access system
- Lawful interception and common access to emergency services.

# Progress of Q.18/2 Studies: ITU-D SG2 meeting, Geneva 2-6 September 2002



## Special needs for developing Countries:

- Available market for the new mobile services ?
- Level of Rural coverage (FAO opinion)
- Areas primarily coverage-limited (rural, sparsely populated and/or very low traffic density) Spectrum below 1 GHz allowing big coverage per single cell may be interesting for developing countries (2.1 GHz requires five times more cell sites than 800 MHz and more than thirteen times more cell sites than 450 MHz). Traffic capacity per cell is constant, larger the cell lower per user traffic

# Progress of Q.18/2 Studies: ITU-D SG2 meeting, Geneva 2-6 September 2002



Special needs for developing countries

**Areas primarily capacity-limited (dense urban areas):** cities growing so quickly that fixed lines should be installed fast to meet the demand.

Wireless systems such as IMT-2000 may be cost effective and flexible for operators that want to expand their network as demand for voice/data services increases: less expensive, faster deployment, handling of both fixed and mobile traffic, voice and data services providing high speed connectivity to be used by clinics, schools, libraries, governments, telecenters and others

# Progress of Q.18/2 Studies: ITU-D SG2 meeting, Geneva 2-6 September 2002



Special needs for developing countries

**Cost affordability for end user: Cost of handsets is a critical factor**

**Service cost affordability: critical regulatory issue (interconnection rates, tariffs, etc)**

# Progress of Q.18/2 Studies: ITU-D SG2 meeting, Geneva 2-6 September 2002



Special needs for developing countries

**Dispersed population: Sharing Network resources, speedy deployment of new technologies, lower costs to the Operators, lower costs to the subscribers (Regulatory aspects)**

**MVNO's: Scarcity of spectrum, Sharing Network resources, speedy deployment of new technologies, lower costs to the Operators, lower costs to the subscribers (Regulatory aspects)**

# **Migration techniques of existing Systems to IMT-2000**



**From Analog Systems (AMPS and NMT-450)**

**From cdmaOne (CDMA IS-95A/B) Systems**

**From TDMA Systems**

**From GSM/GPRS Systems**



# **Progress of Q.18/2 Studies: ITU-D SG2 meeting, Geneva 2-6 September 2002**



**Opinions expressed by developing countries:**

**Timing (when) and specific method (how) of migration for their operators is considered crucial**

**IMT-2000 technologies can help to meet their special needs by bringing internet and other advanced solutions to developing countries particularly in an era of convergence**

**Availability of an information bank consisting of experience of countries having finalized the authorization process of IMT-2000**