International Telecommunication Union

IMT and IMS Technologies In Developing Countries

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&
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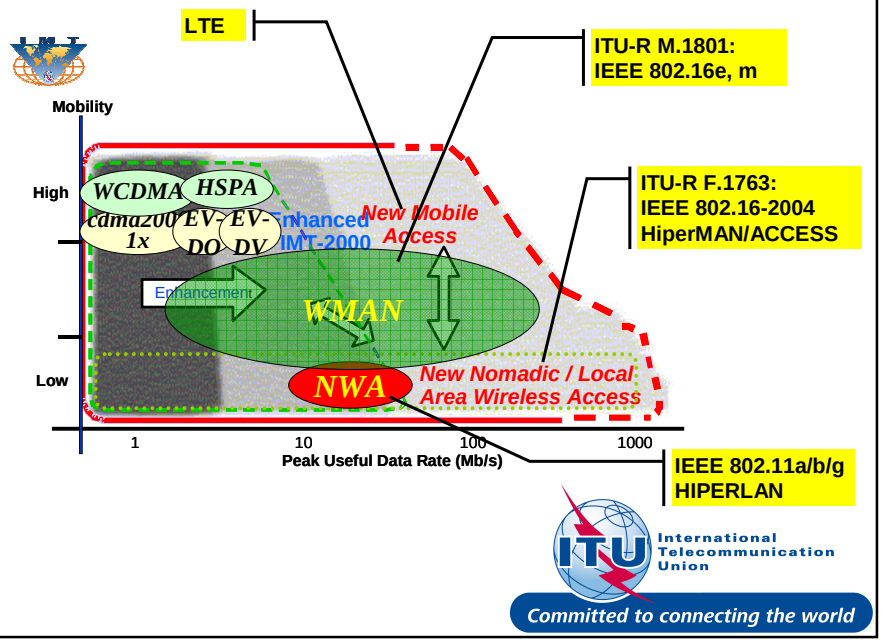
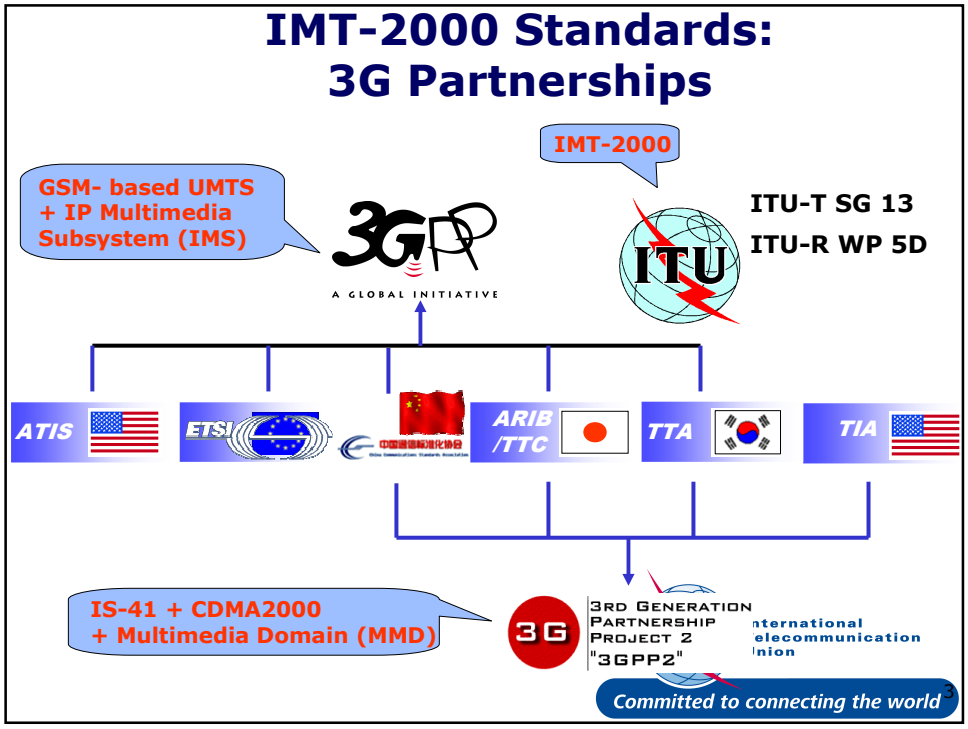
IMT2000 Systems and beyond




IMT-2000 Standards:
3G Partnerships
IMT-2000
GSM- based UMTS
+ IP Multimedia
Subsystem (IMS)
3GPP
A GLOBAL INITIATIVE
ITU
ITU-T SG 13
ITU-R WP 5D
ATIS
ETSI
ARIB
/TTC
TTA
TIA
IS-41 + CDMA2000
+ Multimedia Domain (MMD)
3G
3RD GENERATION
PARTNERSHIP
PROJECT 2
"3GPP2"
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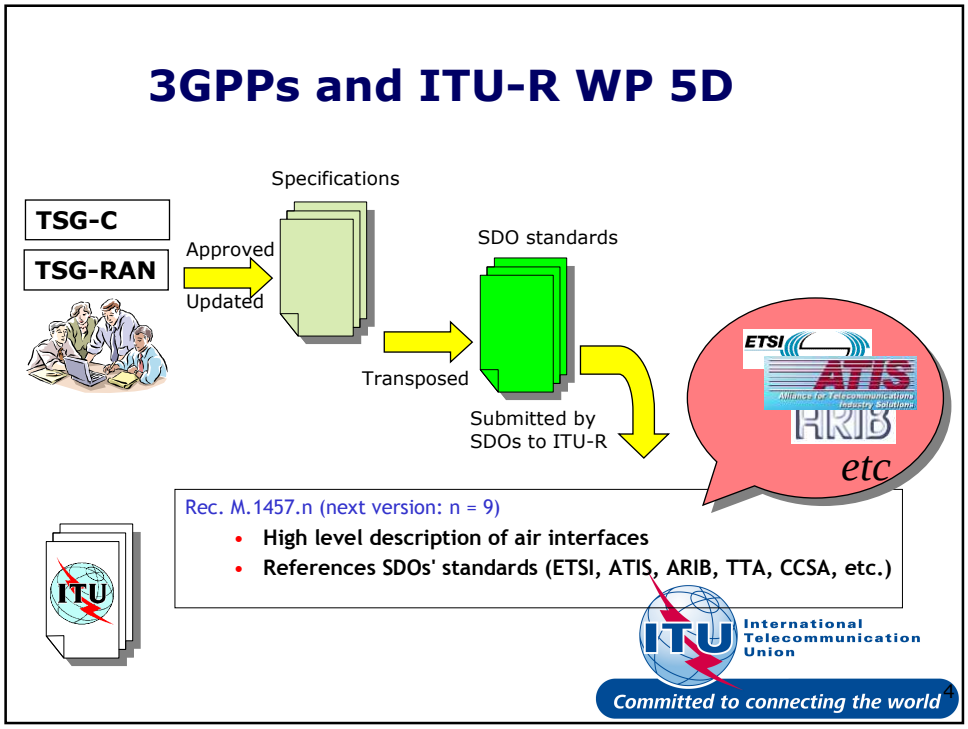
3GPPs and ITU-R WP 5D
TSG-C
TSG-RAN
Specifications
Approved
Updated
SDO standards
Transposed
Submitted by
SDOs to ITU-R
ETSI
ATIS
ARIB
etc
Rec. M.1457.n (next version: n = 9)
High level description of air interfaces
References SDOs' standards (ETSI, ATIS, ARIB, TTA, CCSA, etc.)
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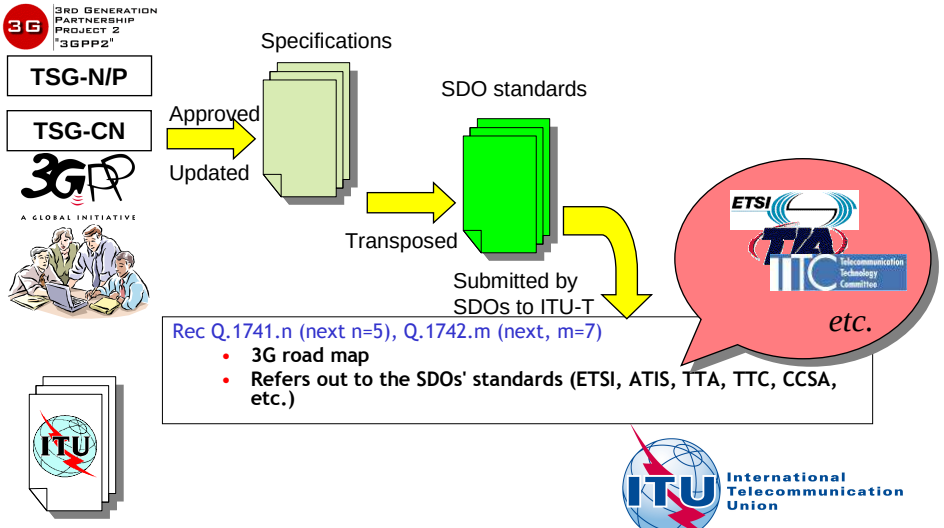
ITU-T Gives Mobile Systems Prominence

- WTSA-2000 created the Special Study Group (SSG) on "IMT-2000 and systems beyond"
- Based on the accomplishments of the SSG and the continuing growth of mobile networks, WTSA-2004 upgraded SSG to a regular SG: SG 19 "Mobile telecommunication networks"
- Considering the closed cooperation on mobile systems and mobility by co-located SG meetings of SG13 and SG19 for the whole study period 2005-2008 WTSA-2008 merged SG13 and SG19.

IMT-2000 in ITU-T

- Users will only get "service" if there are both:
  - Radio access interfaces
  - A suitable core network infrastructure
- Hence need for ITU-R and ITU-T to continue to work closely together to ensure a "complete package"
  - It's not only about radio access, "wired" users expect broadband access, too!

IMT-2000: 3GPPs & ITU-T SG13



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Q.174x.y Series Recommendations

- "IMT-2000 references to release to GSM evolved UMTS core network with UTRAN access network Release <#>"
  - Q.1741.1 Release 1999
  - Q.1741.2 Release 4
  - Q.1741.3 Release 5
  - Q.1741.4 Release 6
  - Q.1741.5 Release 7
  - *Q.1741.6 Release 8 (in preparation 10/09)*
- "IMT-2000 references to ANSI-41 evolved core network with cdma2000 access network (as of <date>)"
  - Q.1742.1 as of 17 Jul 2001
  - Q.1742.2 as of 11 Jul 2002
  - Q.1742.3 as of 30 Jun 2003
  - Q.1742.4 as of 30 Jun 2004
  - Q.1742.5 as of 31 Dec 2005
  - Q.1742.6 as of 31 Dec 2006
  - Q.1742.7 as of 30 Jun 2008

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Q.10/13 - Identification of evolving IMT-2000 systems and beyond

- Determination of architectures and detailed specifications produced by recognised SDOs which make up the evolving IMT systems and beyond
- Facilitating the recognition of those systems and their adoption by the broader ITU community

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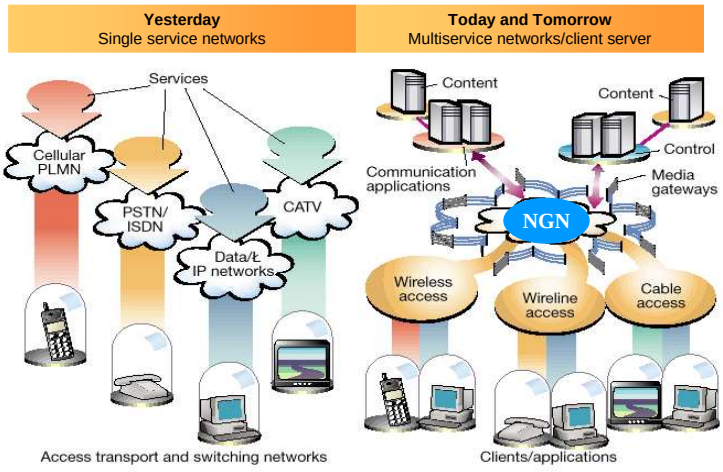
Mobile networks as integral part of NGN access



=> **Key issue mobility**

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IP Multimedia Subsystems (IMS)

- The world of telecommunications is increasingly going packet-based digital, based on Internet Protocol (IP)
- IMS is an architectural framework for delivering IP-based multimedia services
- IMS does not standardize applications, but uses IETF protocols (e.g. SIP) to aid access of services from wireless and wireline terminals (separates applications from modes of access)
- It can be viewed as a tool to get to FMC

Development of IMS

- IMS was originally designed by 3GPP for mobile networks
- It is now enjoying support from various sectors of telecommunications industry
- Some core aspects of IMS are now being developed in close cooperation between 3GPP, 3GPP2, wireline, and cable industries

Resolution 44 - Bridging the standardization gap between developing and developed countries

Motivation

- Many mobile subscribers are in developing countries
- Mobile networks are much more than radio access, and require sound network infrastructure to connect to
- Mobility has become such an important issue that it needs to be studied carefully
- Issues around IMT and IMS need to be well understood, especially in developing countries, for the desired level of success in deployment and implementation
- There is a need for developing countries to have a greater say in the ongoing evolution of NGN networks

Hence Question 15/13 (Applying IMS and IMT in developing country mobile telecom networks) was adopted to address the above issues.

Q15/13 Expected outcomes

- Document summarizing the findings of a gap analysis on the current status and trends of IMS and IMT in customer user needs, technology, market, and standardization requirements, if any, from the view-point of telecom networks in developing countries
- Collection of scenarios in terms of services and deployments for applying IMS and IMT in the mobile telecom networks in developing counties
- Requirements in terms of services and deployments for applying IMS and IMT in the mobile telecom networks in developing countries

Collaboration with External Industry Organizations

- The real world experiences are available only from the organizations that represent the industry
- Contacts established with GSM Association (GSMA), CDMA Development Group (CDG), WiMAX Forum
- Issues being discussed
  - User requirements
  - Technical requirements
  - Roadmap/Migration
  - Interoperability scenarios
  - Operations/Product support

Collaboration with ITU-D

- ITU-D has always been in the forefront of supporting developing countries for their future telecommunications needs
- Both ITU-R and ITU-T coordinate with ITU-D regarding deployment of IMT and IMS systems in developing countries
- Between the three sectors of ITU, full support is available to the global community.

To learn more…

For more information please visit the web site

http://www.itu.int

and SG13 web page in particular

http://www.itu.int/ITU-T/studygroups/com13/index.asp

or contact

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Thank you for your attention!

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