

**ITU-D Regional Development Forum for the
Americas Region: "NGN and Broadband,
Opportunities and Challenges"**
Santo Domingo, Dominican Republic; 25-27 November 2009

Collaboration with External Organizations

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Abstract

- Standards Development Organizations in today's environment find that cooperation and collaboration are essential aspects of building a successful suite of standards for a complete functioning system. This presentation describes the approach of the ITU-T to working with other standards bodies and provides some examples in the areas of NGN and broadband.

Outline

- Introduction
- ITU-T in the Global Standards Community
- Global Standards Collaboration
- Some Examples

Standards Bodies, Fora, Consortia

- Many configurations:
 - Treaty-based, accredited and non-accredited; *de jure* or *de facto*
 - Standards Development Organizations
 - Fora and consortia
 - Partnership projects
 - Industry associations
 - Government advisory committees
- May be global, regional or national

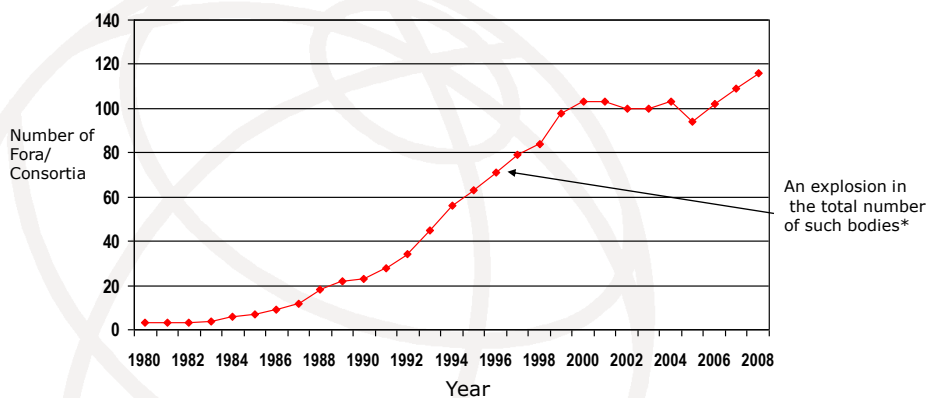
Proliferation

- New bodies appear and old ones disappear frequently
- Why do fora and consortia appear and then disappear?
 - Need to address a specific area more quickly than a traditional SDO
 - Promote a standard in the marketplace
 - Refine a standard for interoperability, e.g., define "profiles", run "test fests"

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Fora and Consortia - Proliferation



Fora and Consortia have been proliferating since the early 1980s; each one can potentially impact business interests - either positively or negatively

Source: TTC, "Survey Report on the Activities of Information and Communications related Fora"
www.ttc.or.jp/e/inv/forum/forum_report-E_v13_1.pdf

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Industry Forums Churn

- 10% or more of all forums are replaced annually
 - ◆ In 2000, 20 forums were added and 15 were deleted
 - ◆ In 2001, 12 forums were added and 12 were deleted
 - ◆ In 2002, 12 forums were added and 15 were deleted
 - ◆ In 2003, 11 forums were added and 11 were deleted
 - ◆ In 2004, 9 forums were added and 6 were deleted
 - ◆ (In 2005, TTC published its analysis in Japanese only)
 - ◆ In 2006, 12 forums were added and 4 were deleted
 - ◆ (In 2007, TTC published its analysis in Japanese only)
 - ◆ In 2008, 13 forums were added and 6 were deleted
- Over three years, ~40% of forums tend to get replaced

Source: TTC, "Survey Report on the Activities of Information and Communications related Fora," specifically Version 15, March 2009 www.ttc.or.jp/e/inv/

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ITU-T in the Global Standards Community

- ITU is a specialized agency of the UN
 - ◆ Treaty-based (created in 1865)
 - ◆ A truly global organization:
 - 191 Member States
 - ◆ Includes industry in its membership:
 - 574 Sector Members*
 - 149 Associates*
 - More info: www.itu.int/ITU-T/membership

* As of 2009 11 07

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Recs. A.4, A.5, A.6

- Rec. A.4 "Communication process between ITU-T and Forums and Consortia"
- Rec. A.5 "Generic procedures for including references to documents of other organizations in ITU-T Recommendations"
- Rec. A.6 "Cooperation and exchange of information between ITU-T and national and regional standards development organizations"
- A-series Recommendations are available at www.itu.int/rec/recommendation.asp?type=products&lang=e&parent=T-REC-A

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ITU-T and Referencing

- Where appropriate, ITU-T references other standards bodies' work rather than duplicating it
- Cooperation and collaboration are essential
 - 29* approved for communication process (Rec. A.4)
 - 32* qualified for referencing (Rec. A.5)
 - 15* approved for cooperation and exchange of information (Rec. A.6)



JCTEA



NIST



Society of Cable
Telecommunications
Engineers



*As of 2009 11 07

List at www.itu.int/ITU-T/lists/qualified.aspx#forums 10

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ITU-T and ISO/IEC JTC1

- ITU-T enjoys a special relationship with ISO/IEC JTC1
 - ◆ Rec. A.23 Collaboration with the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) on information technology
 - ◆ Many ITU and ISO/IEC standards are jointly published and freely available
 - ◆ Collaboration has resulted in a common ITU-T / ITU-R / ISO/IEC Patent Policy
 - www.itu.int/ITU-T/dbase/patent/patent-policy

Qualified Organizations – Rec. A.4

Forums/Consortium	Related Study	Group Qualified
3G Association	ALL	Yes
ASN.1 Consortium	ALL	Yes
ATSC (Advanced Television Systems Committee)	ALL	Yes
AVS (Audio-Visual coding Standard working group)	ALL	Yes
CA/B (CA/Browser Forum)	ALL	Under study
CEPCA (Consumer Electronics Powerline Communication Alliance)	ALL	Yes
DSL Forum	ALL	Yes
ETIS (e-and telecommunication information services)	ALL	Yes
FIRST (Forum of Incident Response and Security Teams)	ALL	Under study
GSM Association	ALL	Yes
Home Gateway Initiative	ALL	Yes
IMTC (International Multimedia Telecommunications Consortium)	ALL	Yes
IP/MPLS Forum	ALL	Yes
IPDR Organization	ALL	Yes
IPsphere Forum	ALL	Yes
IPv6 Forum	ALL	Yes
Liberty Alliance	ALL	Yes
MEF (Metro Ethernet Forum)	ALL	Yes
MMTA (Mobile Multimedia Technology Alliance)	ALL	Yes
MSF (Multiservice Switching Forum)	ALL	Yes
NRO (Number Resource Organization)	ALL	Yes
OASIS	ALL	Yes
OIF (Optical Internetworking Forum)	ALL	Yes
OMA (Open Mobile Alliance)	ALL	Yes
OMG (Object Management Group)	ALL	Yes
SDL Forum Society	ALL	Yes
TM Forum (TeleManagement Forum)	ALL	Yes
UNICODE	ALL	Yes
UPA (Universal Powerline Association)	ALL	Yes
W3C (World Wide Web Consortium)	ALL	Yes

Qualified Organizations – Rec. A.5

Forums/Consortium	Related Study	Group Qualified
ABNT (Associação Brasileira de Normas Técnicas)	ALL	Yes
ARIB (Association of Radio Industries and Businesses)	ALL	Yes
ATIS (Alliance for Telecommunications Industry Solutions)	ALL	Yes
ATM Forum	ALL	Yes
ATSC (Advanced Television Systems Committee)	ALL	Yes
AVS (Audio-Visual coding Standard working group)	ALL	Yes
CCSA (China Communications Standards Association)	ALL	Yes
CEA (Consumer Electronics Association)	ALL	Yes
DSL Forum	ALL	Yes
Ecma International	ALL	Yes
ETSI (European Telecommunications Standards Institute)	ALL	Yes
Home Gateway Initiative	ALL	Yes
IEEE (Institute of Electrical and Electronics Engineers)	ALL	Yes
IMTC (International Multimedia Telecommunications Consortium)	ALL	Yes
IP/MPLS Forum	ALL	Yes
ISOC/IETF (Internet Society/Internet Engineering Task Force)	ALL	Yes
JCTEA (Japan Cable Television Engineering Association)	ALL	Yes
Liberty Alliance	ALL	Yes
MEF (Metro Ethernet Forum)	ALL	Yes
NIST (National Institute of Standards and Technology)	ALL	Yes
OASIS	ALL	Yes
OIF (Optical Internetworking Forum)	ALL	Yes
OMA (Open Mobile Alliance)	ALL	Yes
OMG (Object Management Group)	ALL	Yes
SCTE (Society of Cable Telecommunications Engineers)	ALL	Yes
SMPTE (Society of Motion Picture and Television Engineers)	ALL	Yes
TIA (Telecommunications Industry Association)	ALL	Yes
TM Forum (TeleManagement Forum)	ALL	Yes
TTA (Telecommunications Technology Association)	ALL	Yes
TTC (Telecommunication Technology Committee)	ALL	Yes
UNICODE	ALL	Yes
W3C (World Wide Web Consortium)	ALL	Yes

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Qualified Organizations – Rec. A.6

Forums/Consortium	Related Study	Group Qualified
ABNT (Associação Brasileira de Normas Técnicas)	ALL	Yes
ARIB (Association of Radio Industries and Businesses)	ALL	Yes
ATIS (Alliance for Telecommunications Industry Solutions)	ALL	Yes
CCSA (China Communications Standards Association)	ALL	Yes
CEA (Consumer Electronics Association)	ALL	Yes
Ecma International	ALL	Yes
ETSI (European Telecommunications Standards Institute)	ALL	Yes
IEEE (Institute of Electrical and Electronics Engineers)	ALL	Yes
JCTEA (Japan Cable Television Engineering Association)	ALL	Yes
NIST (National Institute of Standards and Technology)	ALL	Yes
SCTE (Society of Cable Telecommunications Engineers)	ALL	Yes
SMPTE (Society of Motion Picture and Television Engineers)	ALL	Yes
TIA (Telecommunications Industry Association)	ALL	Yes
TTA (Telecommunications Technology Association)	ALL	Yes
TTC (Telecommunication Technology Committee)	ALL	Yes

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Global Standards Collaboration (GSC)

By-invitation events bring together the top Standards officials from the USA, Canada, the EU, China, Japan, Korea, Australia, and the ITU to discuss their standards work programs and identify areas for collaboration and ways to accelerate global standards for the industry. Observers from other standards-related organizations are also invited to participate.

www.itu.int/ITU-T/qsc/
www.gsc.etsi.org/



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GSC Participating Standards Organizations (PSOs)

- ITU
 - ♦ [ITU Telecommunication Standardization Sector \(ITU-T\)](#)
 - ♦ [ITU Radiocommunication Sector \(ITU-R\)](#)
- [Alliance for Telecommunications Industry Solutions \(ATIS\)](#)
- [Association of Radio Industries and Businesses \(ARIB\) of Japan](#)
- [China Communications Standards Association \(CCSA\) of China](#)
- [Communications Alliance of Australia](#)
- [European Telecommunications Standards Institute \(ETSI\)](#)
- [ICT Standards Advisory Council of Canada \(ISACC\)](#)
- [Telecommunications Industry Association \(TIA\)](#)
- [Telecommunications Technology Association \(TTA\) of Korea](#)
- [Telecommunications Technology Committee \(TTC\) of Japan](#)

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GSC-14

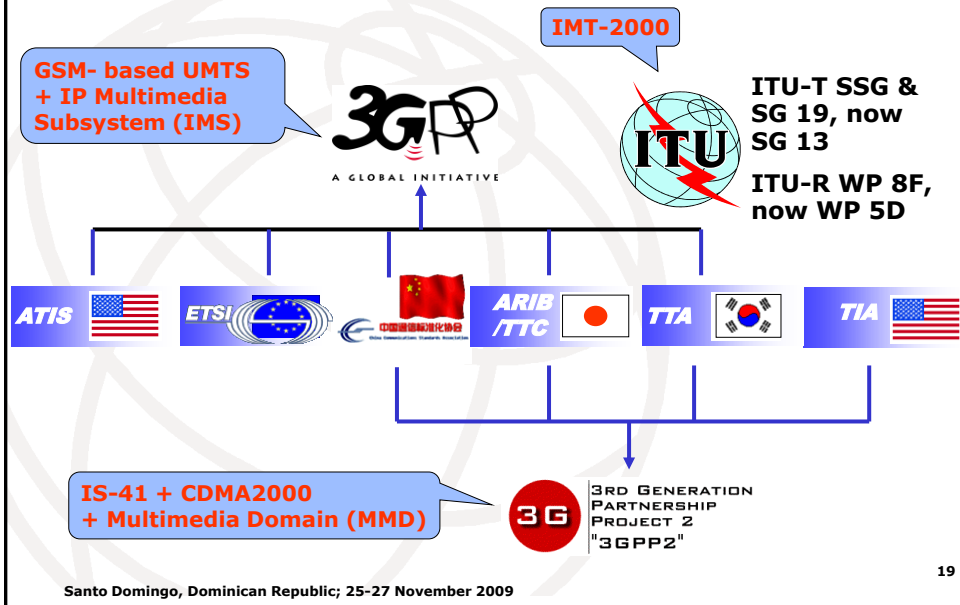


- PSOs take turns hosting
 - GSC-14 was hosted by ITU in Geneva, 13-16 July 2009
 - GSC-15 will be hosted by CCSA in Beijing, 30 Aug – 2 Sep 2010
- GSC-14 Theme: “Fostering worldwide interoperability”
- All GSC-14 documents, Resolutions, etc., are available through links at:
 - www.itu.int/ITU-T/gsc/gsc14/index.html

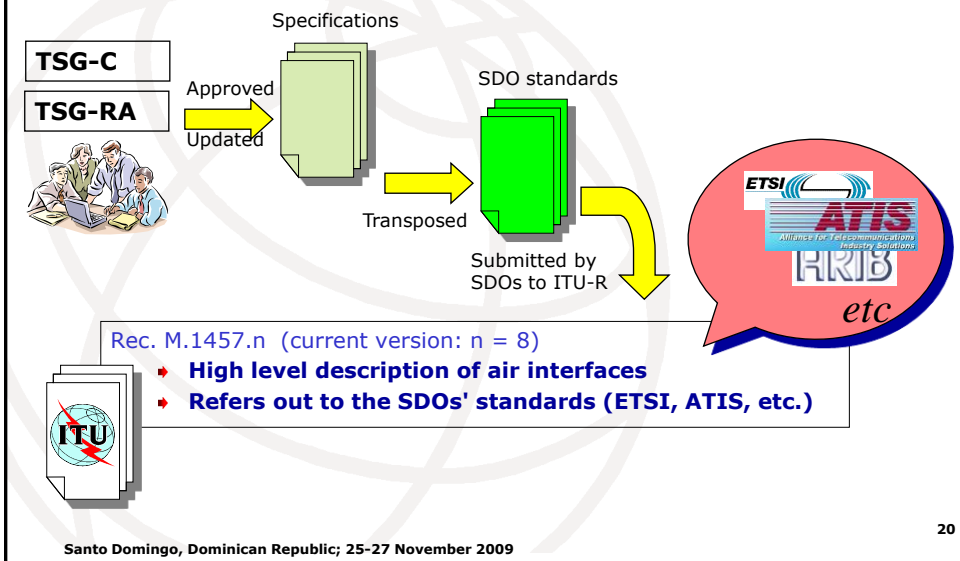
Example of Collaboration between ITU and Other Bodies

- IMT-2000 / IMT-Advanced / IMT
 - Mobile has become the dominant access means but with multiple technologies
 - “IMT-2000 Family” concept: multiple technologies exist, compete, cooperate and evolve
 - Recognition that each technology has its place, that cooperation in certain aspects is mutually beneficial
 - E.g., globalization of regional standards

IMT-2000 Standards: 3G Partnerships



3GPPs and ITU-R WP 5D (formerly WP 8F)

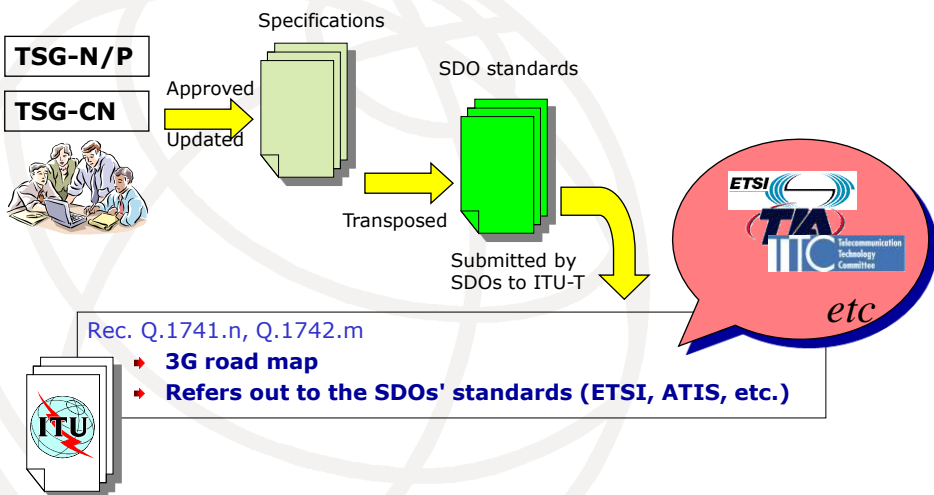


ITU-R IMT-2000 Radio Interface Specifications*

- M.1457 (05/00) Detailed specifications of the radio interfaces of International Mobile Telecommunications-2000 (IMT-2000)
- M.1457-1 (08/01) Detailed specifications of the radio interfaces of International Mobile Telecommunications-2000 (IMT-2000)
- M.1457-2 (04/03) Detailed specifications of the radio interfaces of International Mobile Telecommunications-2000 (IMT-2000)
- M.1457-3 (12/03) Detailed specifications of the radio interfaces of International Mobile Telecommunications-2000 (IMT-2000)
- M.1457-4 (07/05) Detailed specifications of the radio interfaces of International Mobile Telecommunications-2000 (IMT-2000)
- M.1457-5 (04/06) Detailed specifications of the radio interfaces of International Mobile Telecommunications-2000 (IMT-2000)
- M.1457-6 (12/06) Detailed specifications of the radio interfaces of International Mobile Telecommunications-2000 (IMT-2000)
- M.1457-7 (10/07) Detailed specifications of the radio interfaces of International Mobile Telecommunications-2000 (IMT-2000)
- M.1457-8 (05/09) Detailed specifications of the radio interfaces of International Mobile Telecommunications-2000 (IMT-2000)

* Available with a TIES account at www.itu.int/rec/R-REC-M.1457/en

3GPPs and ITU-T SSG / SG 19 / SG 13



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 (approved: 29 Oct 2009)

3GPP finalizing Release 9 (Dec 2009), starting Release 10 (target dates:

- Stage 1 - Mar 2010
- Stage 2 - Sep 2010
- Stage 3 - Mar 2011)

- "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

- ♦ Q.1742.8 as of tbd 2009 (in preparation; target: April 2010)

* Available with a TIES account at www.itu.int/rec/T-REC-Q/e

3GPP2 specs which are complete and approved as of <date>

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WiMAX

- IEEE 802.16: numerous options

- WiMAX Forum:

- ♦ defines profiles based on 802.16
- ♦ promotes WiMAX technology
- ♦ interfaces with regulators to smooth path for global applicability (like Wi-Fi)
- ♦ organizes conformance and interoperability test events
- ♦ promoting WiMAX as new IMT radio technology
 - agreed at WRC-07: "IMT-2000 OFDMA TDD WMAN" and included in ITU-R Rec. M.1457-7



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Summary

- Standards is a global and dynamic environment with lots of churn
 - There are major anchor points, notably the ITU
- No single body can do all the work
 - Cooperation and collaboration are essential
- ITU has a long history of active involvement with many other bodies
 - Recs. A.4, A.5, A.6, A.23; lists of qualified organizations
- IMT provides an excellent example to illustrate the positive effects of global cooperation
 - Both radio access and core network infrastructure

Thank you!



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