Key activities and major ITU-T outcomes on C&I

Pillar 1 and 2 of ITU C&I Programme

ITU-T C&I Portal

http://www.itu.int/en/ITU-T/C-I/Pages/default.aspx

ITU Conformity and Interoperability Portal

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Overview

Conformity with international standards such as ITU Recommendations is one of the core principles underlying the global interoperability of ICT networks, devices and services.

The ITU Conformity and Interoperability (C&I) programme was initiated at the request of ITU's membership to enhance the conformity and interoperability of ICT products implementing ITU Recommendations or part thereof, solicit feedback to improve the quality of ITU Recommendations, and reduce the digital divide and the Standardization Gap by assisting developing countries with human resource and infrastructure capacity building.

The ITU C&I Programme is organized in accordance with the ITU Plenipotentiary Conference Resolution 177 (Guadalajara, 2010) in four pillars:

PILLAR 1. CONFORMITY ASSESSMENT

Conformity assessment is the process used to demonstrate that a product, service or system conform to specified requirements and commonly used by many standard development organizations (SDOs). By promoting conformity assessment relevant to ITU-T Recommendations and showcasing product conform to ITU-T Recommendations, Pillar 1 of the ITU C&I Programme aims to ensure the strategic goal of the ITU Telecommunication Standardization Sector (ITU-T) to develop interoperable, non-discriminatory and demand-driven international standards for International telecommunication.

More >

PILLAR 2. INTEROPERABILITY EVENTS

Although conformity assessment increases the probability of interoperability, interoperability can only be guaranteed through practical tests of interconnected equipment and services from different vendors. Self-funding "interoperability events" are run by many SDOs to verify their standards and facilitate their members' to delivery 'standardized' product timely to market. Under Pillar 2, ITU-TSB organizes interoperability testing and showcasing events upon request of ITU-T membership as an integral step of standard-making process.

More >

News | Related ITU Groups | Contacts

Press release: ICT products conforming to ITU standards listed in public database
Published Fri, 19 Dec 2014

ITU-T webpage launched with focus on measurements of Internet speed
Published Tue, 28 Oct 2014

Press Release: Test event finds mobile phones have poor hands-free performance
Published Fri, 13 Jun 2014

12-16 May: Leading car makers to test hands-free systems to ITU standards
Published Wed, 16 Apr 2014

More >
Archives >

QUICK LINKS

General information

- ITU C&I related Resolutions
- ITU C&I Action plan
- List of activities on the implementation of the ITU C&I Action plan *(agreed by Council-13)*
- ITU Council C&I related documents
- Presentations and promotional materials

ITU C&I Databases

- Product Conformity Database *new* (*Application form*)

Pillar 1

Conformity Assessment

Pillar 1 as defined in Resolution 177 (ITU PP-14)

- "Instructs the Director of the TSB:
  - to continue to carry out pilot projects for conformity to ITU-T Recommendations to increase the probability of interoperability
  - to enhance and improve standards-setting processes in order to improve interoperability through conformity"
- "Invited the Membership to populate the pilot conformity database with details of products tested to applicable ITU T recommendations"

Pillar 1 Key outcomes (1/2)

- **First entries in the Product Conformity Database, (**19 December 2014, http://itu.int/net/itu-t/cdb/ConformityDB.aspx**)**
- **Whitelist of mobile phones** which meet the requirements of P.1100/P.1110
- **Pilot projects** (http://itu.int/go/pilot-projects) of conformity assessment against ITU-T Recs
  - M.3170-series (SG2)
  - Mobile Number Portability (SG11)
- Established the **Conformity Assessment Steering Committee (ITU-T CASC).** ITU-T CASC will work under the auspices of SG11, according to the SG11 guidelines *"Testing laboratories recognition procedure"* (Q.TL-rec-pro)
  First meeting during ITU-T SG11 meeting
  (Geneva, 2-11 December 2015)

Pillar 1 Key outcomes (2/2)

- A **living list of ITU-T Recommendations** on key technologies suitable for C&I testing (http://itu.int/go/key-technologies)
- A **reference table of ITU-T Recs and corresponding test specification** under C&I testing (http://itu.int/go/reference-table)
- **New work items**
  - **SIP-IMS conformity assessment**. Work plan (C-218, SG11). Around 20 new work items are going to start in April 2015
  - "Unified methodology of **Internet speed quality measurement** usable by end-users on the fixed and mobile networks" (ITU website)
  - "Conformance **test plan for Number Portability** requirements defined by ITU-T Q.Suppl.4" (C-240, SG11)
  - **Benchmarking of IMS platform**. Work plan (C-220, SG11)

ITU conformity database

http://itu.int/net/itu-t/cdb/ConformityDB.aspx

Product Conformity Database

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DISCLAIMER

This database is not certified to be either accurate or complete, but only reflects the information that has been communicated to the ITU secretariat. The ITU secretariat has not verified the veracity or accuracy of such information, nor the relevance of the products to ITU Recommendations

Search here

Company: - All -

Product Category: - All -

ITU Code:

Product Name:

ITU-T Recommendation:

Search Reset

ITU Code	Company Name	Product	Model Number	Interface	Category	Subcategory	Conformity to ITU-T Recommendation	Test suite(s)	Co v 3r D
11.1002/4000/96	A & D Medical	A&D Digital Weighing Scale (with Body Composition Analyzer)	UC-411PBT-C as Type D. AD-6209PBT-C, UC-355PBT-Ci, UC-351PBT-Ci and UC-325PBT-Ci as Type U.	PAN Agent	Personal health device	Bluetooth (HDP)	ITU-T H.810 (2013-12)	ITU-T H.841, H.843, H.845.1	
11.1002/4000/95	Robert Bosch Healthcare GmBH	Bosch Blood Pressure Monitor	BP5000 BT	PAN Agent	Personal health device	Bluetooth (HDP)	ITU-T H.810 (2013-12)	ITU-T H.841, H.843, H.845.4	
11.1002/4000/94	Sharp	SHARP HDP Manager Platform for Android (XN-DLBT40)	XN-DLBT40 (SH-01F) as Type D. SHL23, 302SH, SH-01F DRAGON QUEST, DM016SH and SH-02F, 303SH, SHT22 and SHL24 as Type U.	PAN Manager	Personal health device	Bluetooth (HDP)	ITU-T H.810 (2013-12)	ITU-T H.842, H.844, H.845.4, H.845.1, H.846	
11.1002/4000/93	Sharp	SHARP HDP Manager Platform for Android	SH-06E as Type D. 206SH, SH-07E, SH-08E and SHL22 as Type U.	PAN Manager	Personal health device	Bluetooth (HDP)	ITU-T H.810 (2013-12)	ITU-T H.842, H.844, H.845.4, H.845.1, H.846	

The list of key Technologies for C&I

http://itu.int/go/key-technologies

The living list of Recommendations and related specifications within key technologies suitable for C&I testing

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ITU-T SG11 output document:

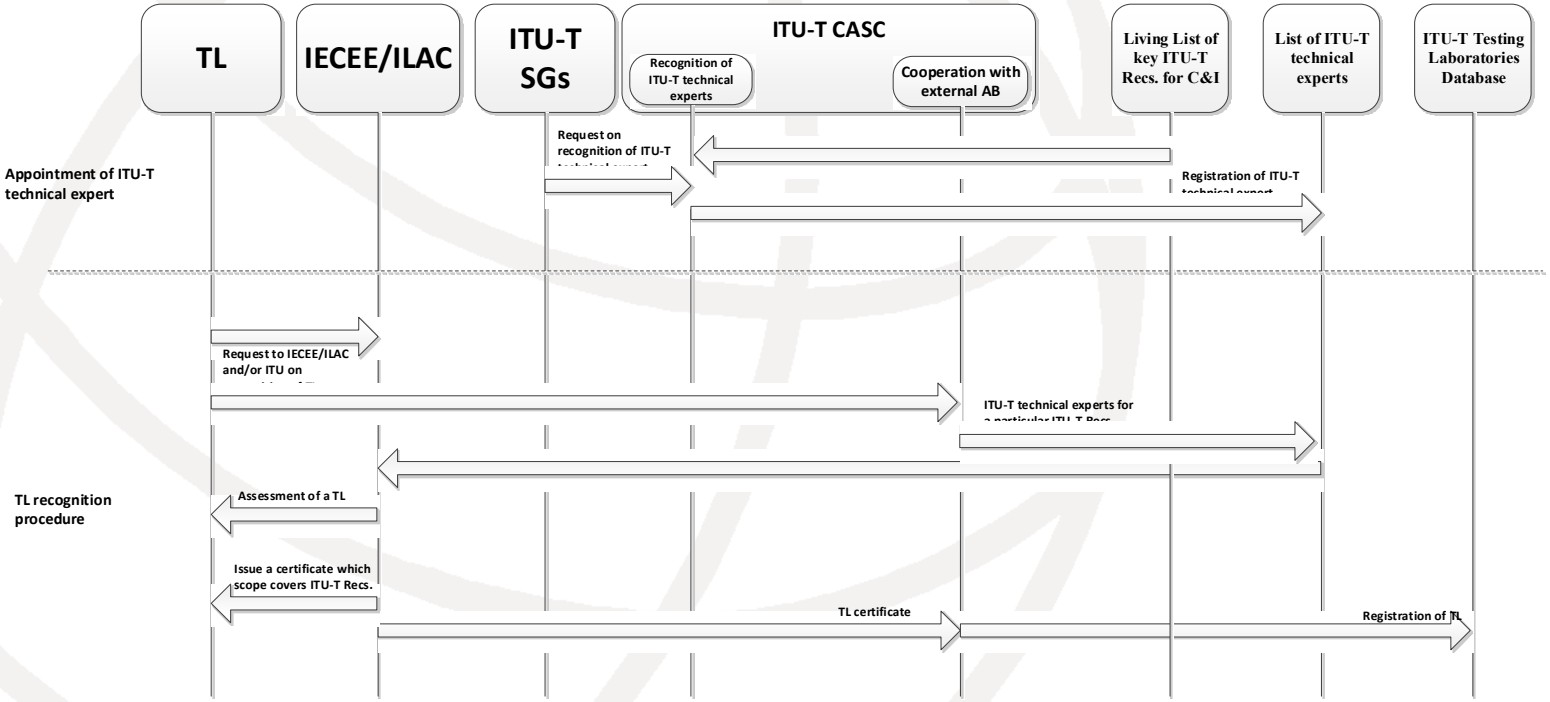
TD 371 (GEN/11) (9-16 July 2014)

#	Title	Focal Point	Other SDOs	ITU-T SGs	References to SDOs docs	References to ITU-T Recs.
1	NGN Functionality	Martin Brand Vice-chairman of SG11 (Austria) martin.brand@A1telekom.at Andrey Koucheryavy (Russia) akouch@mail.ru Dmitry Tarasov (Russia) tarasov@zniis.ru	ETSI	SG11	ETSI (Requirements) - - - ETSI (Test suites) - -	ITU (Requirements) Y.2201 Y.2012 Q.3909 ITU (Test suites) Q.3900 Q.3901
2	Functions of broadband network as a part of NGN	Dmitry Tarasov (Russia) tarasov@zniis.ru	-	SG11	-	ITU (Requirements) Y.2012 ITU (Test suites) Q.3906.1
3	IMS architecture, signalling protocols, interfaces	Martin Brand Vice-chairman of SG11 (Austria) martin.brand@A1telekom.at	ETSI/3GPP	SG11	ETSI (Requirements) TS 124 228 TS 124 229 TS 124 238 TS 124 428	ITU (Requirements) - - - -

TL recognition procedure work flow

Detailed procedures will be developed by ITU-T CASC.
The general work flow will be as follows:

- The candidate TL shall submit to the ITU-T CASC an application for recognition
- The ITU-T CASC will provide to the relevant committee of IEC and ILAC the necessary documentation and the list of ITU-T technical experts
- Based on the decisions of IEC and ILAC, ITU-T CASC will recognize a TL
- The TL is notified and added to the list of ITU-T recognized TL



ITU-T recognition procedure of testing laboratories (Q11/11)

Background:

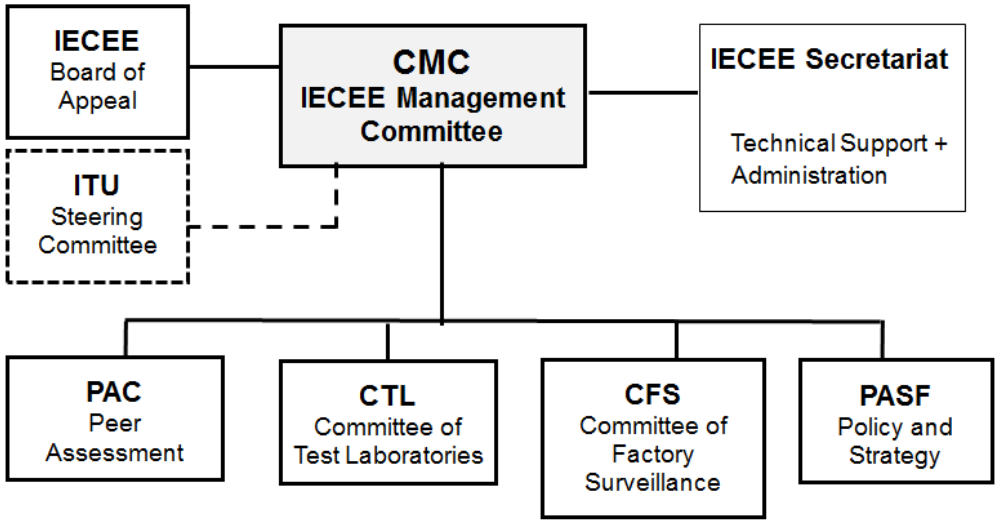
- Russian Contribution to SG11 meeting (November 2013) and corresponding group was created
- The corresponding group concluded in July 2014 and the work transferred to Q11/11

Recent developments:

- New guideline *"Testing laboratories recognition procedure"* (Q.TL-rec-pro) was approved in April 2015
- ITU-T Conformity Assessment Steering Committee (CASC) was established under SG11 in April 2015
- Mr Isaac Boateng (NCA, Ghana) was appointed Chair of CASC
- CASC will adopt the working methods of a Working Party
- First meeting of CASC planned in December 2015. All ITU-T SGs are invited to appoint a representative to the CASC [see TD 245 (TSAG)]

Possible ITU collaboration with IEC/IECEE (PP-14, C63)

- ✓ ITU partner with IEC to conduct a trial of voluntary 3rd party CA of suitable ITU-T Recommendations
- ✓ A team of assessors selected by ITU-T and qualified by IECEE would recognize test labs which qualify for testing specific ITU-T Recommendations. A recognized test lab would then be able to issue certificates
- ✓ An 'ITU steering committee' would be established within the IECEE organization structure



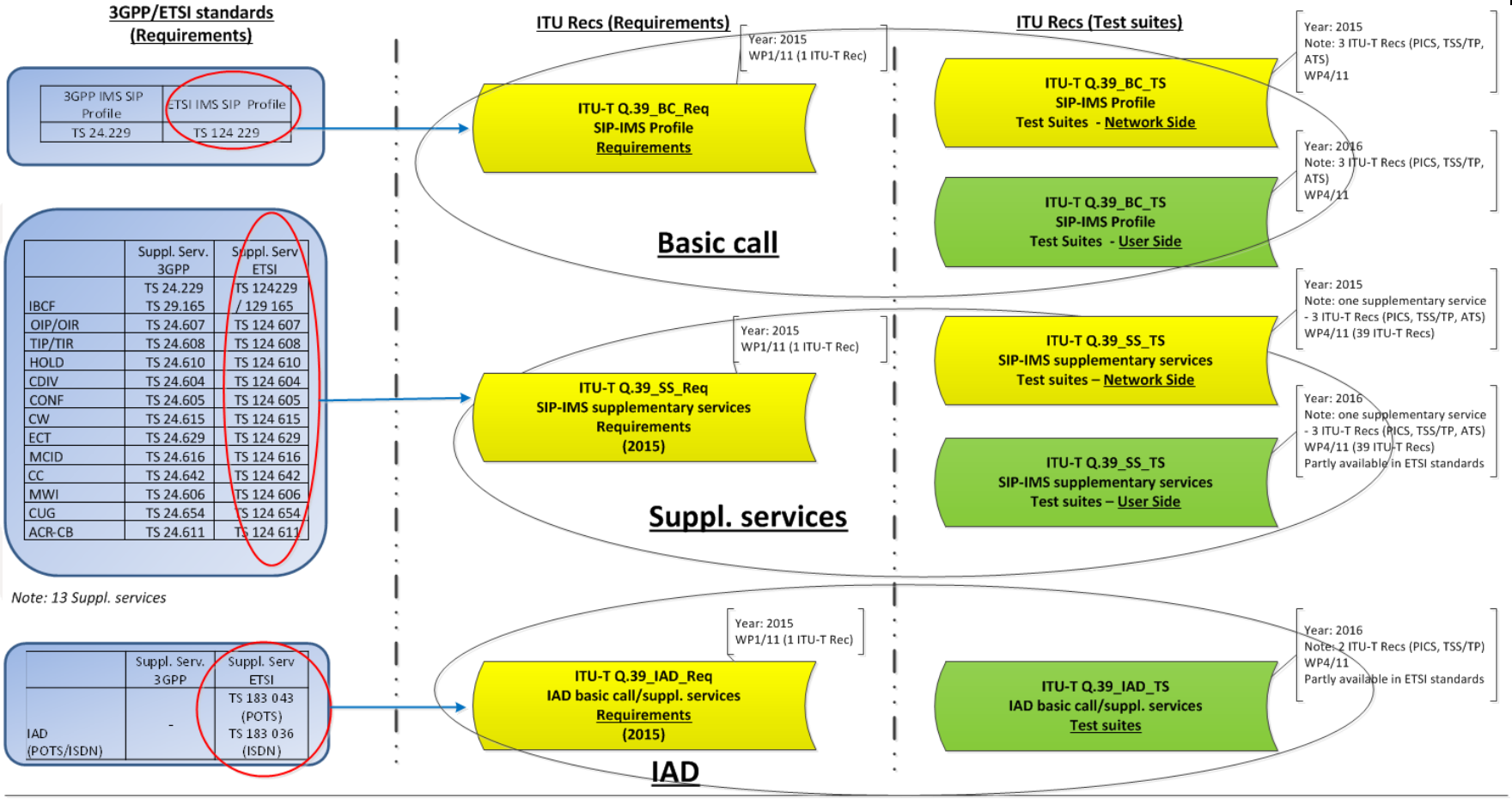
Objectives of SIP-IMS standardization plan

- Collect all standards on SIP-IMS profile in ITU-T and amend it with missing standards
  (e.g. requirements, test specifications, use cases, etc.)
- Establish the conformity assessment of SIP-IMS profile which may be used by all fixed telecom operators in the world for testing equipment based on SIP-IMS profile
- Start the ITU pilot project for conformity assessment of the equipment which is based on SIP-IMS profile
  (Testing Laboratory and other interested parties are invited)
- Create a list of TEs based on SIP-IMS profile which comply with ITU-T Recommendations
  (e.g. signalling protocol, voice QoS/QoE)
- Collaboration with ETSI TC INT *(planned joint rapporteur groups in September 2015)*

Note

Presentation of SIP-IMS standardization plan (TD219)
Work plan (TD218)

Work plan on SIP-IMS standardization



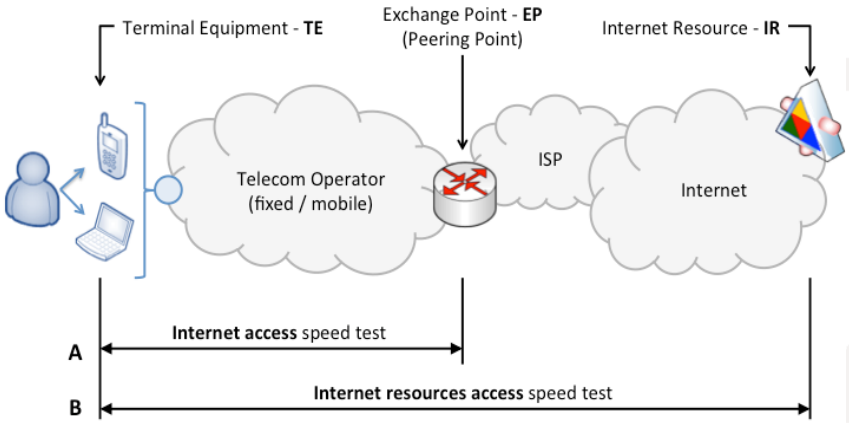
Measurements of Internet speed

(under ITU-T SG11 Q15/11 "Testing as a service TAAS")

Two types of measurements:

- Internet access speed
- Internet resources access speed

Website



In progress:

Draft Recommendation ITU-T Q.Int_speed_test "Unified methodology of Internet speed quality measurement usable by end-users on the fixed and mobile networks"

ITU-T SGs activities on C&I

- ITU-T SG12 assumes that ITU-T P.381 "Technical requirements and test methods for the universal wired headset or headphone interface of digital mobile terminals" may become a candidate for a pilot project *(iLS to SG11 TD641)*
- ITU-T SG2 continue developing conformance testing specifications for network management interface (ITU-T M.3170) *(oLS from SG2)*
- ITU-T SG12 revised ITU-T P.1100/P.1110
- ITU-T SG15 developed Implementers' Guide for Recommendation ITU-T G.9801 (Conformance and interoperability tests for OMCI-EPON) *(iLS to SG11 TD634)*

ITU Activities to combat counterfeiting

- ITU-T PP-14 New Resolution on Combating counterfeit telecommunication/ICT devices which refers to the Resolution 177 (PP-14) on Conformity and Interoperability
- ITU held an event on combating counterfeit and substandard ICT devices (17-18 November 2014)
  Note: In its conclusion, ITU was invited to contribute by "using standards and C&I programs as a means to combat counterfeit and substandard ICT devices"
- ITU-T SG11 approved a "Technical Report on Counterfeit ICT Equipment". (Involvement of WTO, WCO, WIPO, MMF, GSMA etc.)
- The Framework on combating counterfeit goods is under study in ITU-T SG11 (Q8/11 created four new work items):
  - *Q.FW_CCF "Framework for solution to combat counterfeit ICT Devices"* which will be approved via TAP
- A demo on "a solution to combat Counterfeiting of ICT products based on the Digital Object Architecture" was also given at SG11

http://www.itu.int/en/ITU-T/studygroups/2013-2016/11/Pages/counterfeit.aspx

Joint Coordination activity Conformance and Interoperability Testing (JCA-CIT)

General statistic

- 6 meetings
- Next meeting 7 December 2015 (14:30-15:45 GVA)

Main focus

- Addressing C&I coordination issues within ITU and with other SDOs

Key outcomes

- Discussed key ITU-T activities on C&I (G.8265.1, SIP-IMS profile, Internet speed measurements etc.)
- JCA-CIT decided to extend the list of ICT items to be tested on conformity (signalling protocols, interfaces, telecom services, benchmarking, QoS/QoE/NP) Report, 25 April 13
- Assisted SG11 to maintain living lists on C&I (key technologies, reference table, pilot projects)
- Informed participants about the planned ITU testing events and outcomes of the conducted events (e.g. ITU-T P.1100/P.1110, APT/ITU C&I events, etc.)

http://www.itu.int/en/ITU-T/jca/cit/Pages/default.aspx

Pillar 2

Interoperability Events

Objectives of ITU Interop events

- cross-connect various manufacturers
- evaluate of interoperability of all participants on a peer basis
- check end-to-end performance at common "interfaces"
- to validate different implementations of standard, and feedback to standard-making

ITU Interop events

- E-health testing and showcasing event
  (Geneva, ITU Headquarters, 10-12 February 2015)
- 2nd joint APT/ITU Conformance and Interoperability event
  (Bangkok, Thailand, 25-26 August 2014)
- ITU test event on Performance assessment of vehicle-mounted mobile phones in conjunction with Hands-free Terminals according to Recommendations ITU-T P.1100 and ITU-T P.1110
  (Geneva, ITU Headquarters, 12-16 May 2014)

- **Future events planned:**
  - 3rd APT/ITU Conformance and Interoperability event
    (Bangkok, Thailand, 7-8 Sep 2015)
  - 2nd ITU-T testing event on performance assessment of vehicle-mounted mobile phones in conjunction with hands-free terminals according to Recommendations ITU-T P.1100 and ITU-T P.1110
    (Geneva, ITU Headquarters, 8-10 September 2015)

ITU Test Event
Performance assessment of mobile phones in conjunction with vehicle's HFT in accordance with Recs. ITU-T P.1100/P.1110

www.itu.int/go/test-event

Background

Many mobile phones do not work properly with HFT's system and thereby significantly degrading the speech quality of the complete system

Findings

- ✓ an incorrect behavior of the mobile phone in the wireless connection to a vehicle's HFT
- ✓ an unacceptable quality of a voice-call inside the car and outside the car for the conversational partner

Only 30 % of phones passed the tests!

Key outcomes

- ✓ "whitelist" of mobile phones which meet the requirements is available in ITU web page
- ✓ Updated Recs. ITU-T P.1100/P.1110 with the new values of performance have been approved *(January 15)*

Venue: ITU Headquarters
TL: HEAD Acoustics
Date: 12-16 May 2014
Participants: Mercedes-Benz, Volvo, Bosch, Toyota, Renault
Number of tests: 40 (30 phones)

ITU press-release

Test report

Joint APT/ITU C&I events

1st event (Thailand, 9-10 September 2013)
2nd event (Thailand, 25-27 August 2014)
3rd event (Thailand, 7-8 Sep 2015)

Scope

- Testing
  - NGN (VoIP, Video conference)
  - IPTV(including IPTV-MAFR (Multimedia Application Framework))
- Showcasing
  - IPTV/internet TV, NGN E2E Services , M2M/IoT/e-health, Speech and Natural Language Processing , IPv6, FTTH (GPON and GEPON)
- references to ITU-T Recommendations
  - Q.3902, Q.3948, Q.3949, H.625, H.701, H.721, H.762, H.770, F.745

Conclusions

- The living list of ITU-T Recommendations which are suitable for C&I testing can be used by TLs for performing tests at the national/regional level
- All interested parties are invited to participate in ITU-T SGs on developing ITU-T Recommendations for which the market requires C&I testing
- Interoperability testing events become very popular and can help operators to fix the compatibility issues at the early stage (interoperability plays a significant role for user's connection and interconnection among telecom operators)
- Pilot project is one of the tools to verify technologies before implementing in the ICT market
- Conformity assessment can play a role in the fight against counterfeit telecommunication/ICT devices

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ADDITIONAL SLIDES

ITU web sources related to C&I Programme

ITU C&I resources

C&I Portal - http://www.itu.int/en/ITU-T/C-I/Pages/default.aspx

JCA-CIT - http://www.itu.int/en/ITU-T/jca/cit/Pages/default.aspx

SG11 (lead group on testing) - http://www.itu.int/en/ITU-T/studygroups/2013-2016/11/Pages/default.aspx