Key activities and major ITU outcomes on C&I

Pillar 1 and 2

ITU-T C&I Portal

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"

ITU Product Conformity Database

Product Conformity Database

YOU ARE HERE HOME > ITU-T > ITU CONFORMITY AND INTEROPERABILITY > PRODUCT CONFORMITY DATABASE

SHARE

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

E-Health Devices | Mobile Phones | Ethernet services

Product	Company	Model Number	Conformity to ITU-T Recommendation
Austonio Application for Android	Intel	Asus Memo Pad 8	ITU-T H.810 (2013-12)
Digital Thermometer	A & D Medical	UT-201BLE	ITU-T H.810 (2013-12)
Digital Blood Pressure Monitor	A & D Medical	UA-651BLE as Type A	ITU-T H.810 (2013-12)
Energy Smart Blood pressure monitor	IDT	BPU321 (as Type A)	ITU-T H.810 (2013-12)
Accu-Chek Active GB	Roche	GB revision 2	ITU-T H.810 (2013-12)
NTT Docomo - Mobile phone HDP manager platform, Android mobile phone	Fujitsu Limited	F-04G	ITU-T H.810 (2013-12)
Manager Platform for Android	Sharp	SHARP Manager Platform	ITU-T H.810 (2013-12)
Precision Health Scale	A & D Medical	UC-352BLE	ITU-T H.810 (2013-12)
A&D Digital Weighing Scale (with Body Composition Analyzer)	A & D Medical	UC-411PBT-C as Type D. AD-6209PBT-C, UC-355PBT-Ci, UC-351PBT-Ci and UC-325PBT-Ci as Type U.	ITU-T H.810 (2013-12)
Bosch Blood Pressure Monitor	Robert Bosch Healthcare GmBH	BP5000 BT	ITU-T H.810 (2013-12)
SHARP HDP Manager Platform for Android (XN-DLBT40)	Sharp	XN-DLBT40 (SH-01F) as Type D. SHL23, 302SH, SH-01F DRAGON QUEST, DM016SH and SH-02F, 303SH, SHT22 and SHL24 as Type U.	ITU-T H.810 (2013-12)

1956 2016 CCITT / ITU-T

KEY OUTCOMES OF PILLAR 1 (1/3)

- **First entries in the Product Conformity Database,** 19 December 2014, www.itu.int/go/tcdb
- **Whitelist of mobile phones** which meet the requirements of P.1100/P.1110
- **Pilot projects** of conformity assessment against ITU-T Recs http://itu.int/go/pilot-projects
  - M.3170-series (SG2)
  - Mobile Number Portability (SG11)
  - EPON (SG15)
- **Living list of ITU-T Recommendations on key technologies** suitable for C&I testing http://itu.int/go/key-technologies
- **Reference table of ITU-T Recs and corresponding test specification under C&I testing** http://itu.int/go/reference-table

1956 2016 CCITT / ITU-T

ITU

KEY OUTCOMES OF PILLAR 1 (2/3)

- Approved a Guideline **Testing laboratories recognition procedure**
- Established the **Conformity Assessment Steering Committee (ITU-T CASC)** to elaborate detailed procedures for the implementation of a test laboratory recognition procedure in ITU-T (web page, TD938)
- Conducted **Workshop on VoLTE/ViLTE interconnection** (web) and started a new work item **Q.30xx_VoLTE_Interconnection_FW "Framework of interconnection of VoLTE/ViLTE-based networks"**

KEY OUTCOMES OF PILLAR 1 (3/3)

- Updated **SIP-IMS conformity assessment** web page
- Updated **Benchmarking of IMS platform**. Work plan (TD1154, SG11)
- Approved ITU-T Q.3960 "**Framework for Internet related performance measurements**"
- Approved ITU-T Q.3905 "**Conformance test plan for Number Portability requirements defined by ITU-T Q.Suppl.4**"
- Approved ITU-T Q.4040 "**The framework and overview of cloud computing interoperability testing**"
- Consented ITU-T Q.3920 **"Terms and definitions to be used in conformance and interoperability issues"** (Q.C&I_VOC)
- Started a new work item Q.39_FW_Test_ID_IoT "**The framework of testing of identification systems used in IoT**"

ITU-T Conformity Assessment Steering Committee (ITU-T CASC)

ITU's testing laboratories recognition procedure

ITU-T CASC web page

RATIONALE

Common practice of C&I programmes of SDOs and forums (such as IECEE, IEEE ICAP, BBF, MEF, Bluetooth, Wi-Fi Alliance, WiMAX Forum, etc.) shows that a recognition procedure of Testing Laboratories (TL) is the best way to ensure the credibility of their testing programme, i.e., that testing results are produced by a TL which is competent, behaves ethically and employs suitable quality assurance

TWO OPTIONS TO IMPLEMENT THE ITU-T TL'S RECOGNITION PROCEDURE

- to join the existing conformity assessment programs, by providing ITU-T's technical experts to perform relevant TL's assessment against ITU-T Recommendations
- based on experience gained from collaboration with existing schemes, ITU may, in future, consider the possibility of establishing an ITU-T TL self-recognition procedure, providing the assessment of ITU-T technical experts and assessment of the TL

BACKGROUND

- The Conformity Assessment Steering Committee (ITU-T CASC) was established in April 2015 by ITU-T SG11 to elaborate detailed procedures for the implementation of a test laboratory recognition procedure in ITU-T
- The ITU-T CASC works in accordance with the ITU-T SG11 Guideline "Testing laboratories recognition procedure" which describes the procedure for recognition of Testing Laboratories that have competence for testing against ITU-T Recommendations
- Mr Isaac BOATENG (SG11 Vice-chairman, Ghana) has been appointed as Chairman of ITU-T CASC (web page)
- 1st meeting of the ITU-T CASC (3 December 2015) (report)
- 2nd meeting of the ITU-T CASC (28 June 2016) (report)

OUTCOMES

- **Agreed a list of ITU-T Recs. which may become a subject of joint certification schemes with external certification bodies. Among ITU-T Recommendations are:**
  - ITU-T P.1140 “Speech communication requirements for emergency calls originating from vehicles” (06/2015)
  - ITU-T P.1100 “Narrow-band hands-free communication in motor vehicles” (01/2015)
  - ITU-T P.1110 “Wideband hands-free communication in motor vehicles” (01/2015)
  - ITU-T K.116 “Electromagnetic compatibility requirements and test methods for radio telecommunication terminal equipment” (11/2015)
- **Updated a draft procedure to appoint ITU-T technical experts**
- **Discussed collaboration procedures with IECEE and GCF**

ITU-T CASC WILL MANAGE THE ITU-T TL'S RECOGNITION PROCEDURE

Main objectives of ITU-T CASC are:

- to provide the ITU-T view and position to the management organs of the established Conformity Assessment Systems and Schemes of the IEC and ILAC
- to set up criteria, rules and procedures for the appointment of ITU-T technical experts by working with established Conformity Assessment Systems and Schemes of IEC, in collaboration with ILAC aiming for a common testing and conformity assessment
- to process applications from candidate experts from ITU-T membership
- to appoint the ITU-T technical expert(s)
- to recognize TL with a scope of ITU-T Recommendation(s) which is assessed by IEC or by ILAC accreditation bodies and register it in the ITU recognized TL list

Interconnection of 4G networks (VoLTE/ViLTE)

Workshop web page

Summary of the Workshop

New work item ITU-T Q.30xx

CTO Meeting

Budapest, 11 October 2015

- Service interoperability in fixed-mobile hybrid environments is becoming a high priority to industry
- Participants identified high-quality voice telephony as a challenging but attractive opportunity for network operators
- ITU-T has been invited to facilitate the roll out of high-quality voice and video services through standards, testing and interoperability

CTOs encouraged ITU-T to initiate studies with the goal of enabling the global interoperability of such high-quality services

1956 2016
CCITT / ITU-T

Background

The implementation of VoLTE/ViLTE poses to some challenges for operators:

- **interconnection inside country** (among different telecom operators)
  National level
- **interconnection with operators outside of the country** (long distance calls, roaming)
  International level

1956 2016
CCITT / ITU-T

Current issues

- **Numbering**
  (translation from E.164 to URI – ENUM implementation)
- **Roaming**
  (there are no strict rules for operators which option needs to be used)
- **Other issues**
  - Floating delay
  - Lawful interception
  - Data retention
  - Emergency services (e.g. emergency call 112)

1956 2016
CCITT / ITU-T

ITU-T Activities

- **Workshop on VoLTE/ViLTE (1 Dec.15)**
  Note: according to the report of the WSHP most of SGs will be involved to this issue, as follows:
  SG2-ENUM, SG12-QoS/QoE e2e for VoLTE, SG16-transcoding, SG11-framework/signaling, SG3-charges, regulations, SG17-security
- **New work item started in ITU-T SG11 *"Framework of interconnection of VoLTE/ViLTE-based networks"***
- **Joint meeting ETSI TC INT, GSMA and Q2/11**
  (Sophia-Antipolis, ETSI HQ, March 2016)
- **SG11 meeting** (work item)
  (27 June – 6 July 2016)

1956 2016 CCITT / ITU-T

ITU

SIP-IMS conformance testing

under Q11/11 “Protocols and networks test specifications; frameworks and methodologies”

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

1956 2016
CCITT / ITU-T

BACKGROUND

- International standards (such as ITU-T Recommendations) are the best tool to achieve interconnection between worldwide telecom operators
- **Most telecom operators have already implemented the IMS platform**, connecting their customer's Terminal Equipment (TE) through SIP-IMS protocol
- **Different implementation of SIP-IMS** profiles may result in additional operator's efforts (budgets) to adapt TE to the installed IMS platform
- **The roaming for VoLTE-based services among operators is not guaranteed** due to the different implementations/options of VoLTE, the lack of unified standardized interconnection requirements and signaling protocols

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 a framework for 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
- **Support the conformity assessment of equipment against ITU-T Recommendations 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)
- **Align and develop ITU-T Recommendations in collaboration with ETSI TC INT**

INTERNET RELATED PERFORMANCE MEASUREMENTS

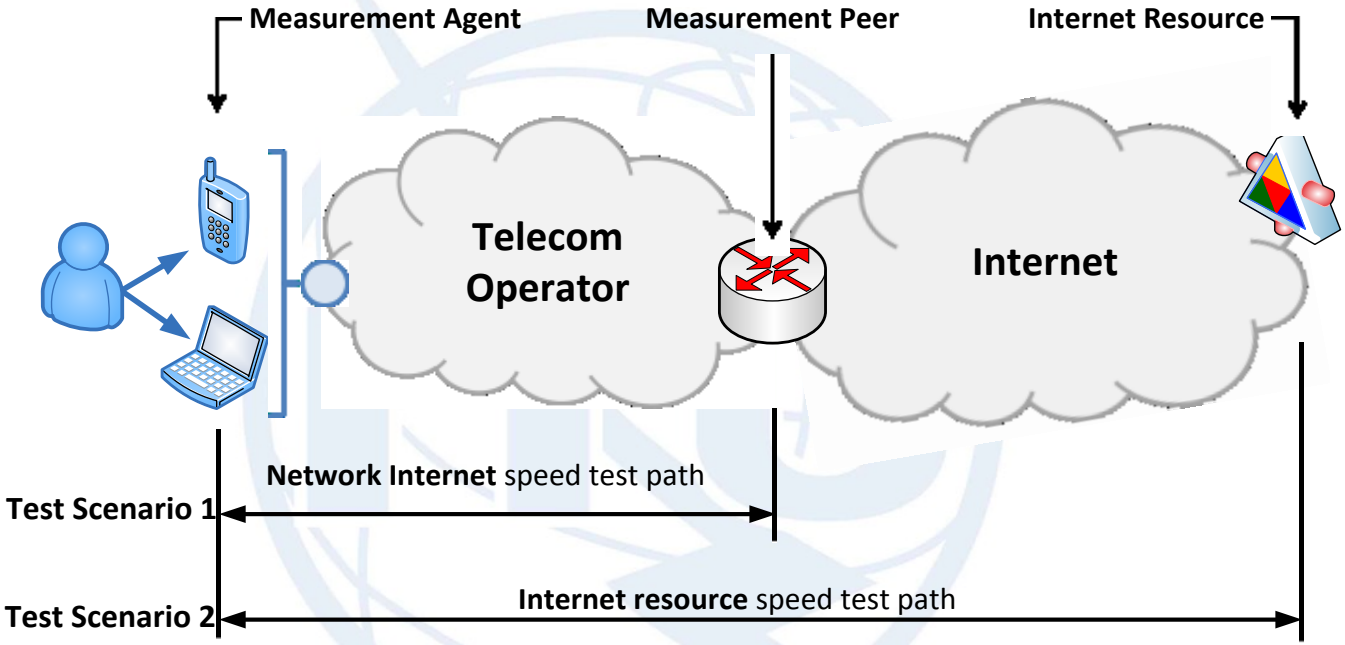
http://www.itu.int/en/ITU-T/C-I/Pages/IM/Internet-speed.aspx

1956 2016
CCITT / ITU-T

BACKGROUND

Framework for Internet related performance measurements

(ITU-T Q.3960 approved, July 2016)



In progress:

Draft Recommendation ITU-T Q.3961 "Testing methodologies of internet speed measurement system to be used on the fixed and mobile networks"

Conformance testing of the Mobile Number Portability

under Q11/11 “Protocols and networks test specifications; frameworks and methodologies”

KEY OUTCOMES

REQUIREMENTS

- ✓ Q.suppl.4 “Number portability – Capability set 1 requirements for service provider portability (All call query and Onward routing)”

APPROVED TEST SPECIFICATION

- ✓ ITU-T Q.3905 “Conformance test plan for Number Portability requirements defined by ITU-T Q.Suppl.4”

PILOT PROJECT

- ✓ SG11 started pilot project which aims to perform testing of MNP implementation against ITU-T Recs.
  (web page http://itu.int/go/pilot-projects)

1956 2016
CCITT / ITU-T

ITU ACTIVITIES TO COMBAT COUNTERFEITING

- ITU-T PP-14 Resolution 188 on Combating counterfeit telecommunication/ICT devices which refers to the Resolution 177 (PP-14) on Conformity and Interoperability
- WTDC-14 Resolution 79 "The role of telecommunications/ICT in combating and dealing with counterfeit telecommunication/information and communication devices"
- **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.) TD-574 R.2 (GEN/11)

ITU WORKSHOP ON "COMBATING COUNTERFEIT USING CONFORMANCE AND INTEROPERABILITY SOLUTIONS"

ITU Study Group 11 organized a ITU workshop (June 2016) that aim to

- determine whether or not conformance and interoperability programmes can assist to combat counterfeit ICT devices
- understand mechanisms to secure the supply chain management (from manufacturing, importation distribution and marketing) to ensure traceability, security, privacy and trust of people, products and networks
- create awareness of the problem of counterfeiting of ICT devices and the dangers they pose as well as on the studies currently on-going in ITU-T SG11 Question 8 and particularly to foster development of the technical Recommendation "Framework for Solutions to Combat Counterfeit ICT Devices"

http://itu.int/en/ITU-T/Workshops-and-Seminars/20160628/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

1956 2016
CCITT / ITU-T

ITU

ITU INTEROP EVENTS

- **2nd ITU-T test event: performance of mobile phones as gateways to car hands-free systems** (Geneva, ITU Headquarters, 23-27 May 2016)
- **IPTV testing event** (Geneva, Switzerland, 14-15 October 2015)
- **3rd joint APT/ITU Conformance and Interoperability event** (Bangkok, Thailand, 7-8 September 2015)
- **HATS Interoperability event on NGN supported by ITU and APT** (Tokyo, Japan, 14-16 July 2015)
- **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)

1956 2016
CCITT / ITU-T

FIRST ITU TEST EVENT
PERFORMANCE ASSESSMENT OF MOBILE PHONES AS GATEWAYS TO CAR HANDS-FREE SYSTEMS

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

- ✓ New **web portal** describing the existing issues
- ✓ Updated Recs. ITU-T P.1100/P.1110 with the new values of performance have been approved (December 14)
- ✓ Automotive industry appealed to ITU to publish a **"whitelist"** of mobile phones which meet the requirements, **web page**

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

1956 2016 CCITT / ITU-T

SECOND ITU TEST EVENT
PERFORMANCE ASSESSMENT OF MOBILE PHONES AS GATEWAYS TO CAR HANDS-FREE SYSTEMS

Date and venue: 23-27 May 2016, Geneva ITU HQ
web page

Outcomes:

- Tested 18 mobile phones (state-of-art devices) from 11 mobile phone vendors
- 34 tests (18 Narrowband and 16 Wideband)

Only 22 % mobile phones passed the tests!

Automotive companies requested ITU to organize a roundtable among automotive industry and mobile phone industry which aim is to find a possible way of addressing the found challenges (report)

1956 2016
CCITT / ITU-T

TSB contacts

Conformance: conformity@itu.int
Interoperability: interop@itu.int

For more information please contact:
Denis Andreev (TSB/ITU)
denis.andreev@itu.int

1956 2016
CCITT / ITU-T