

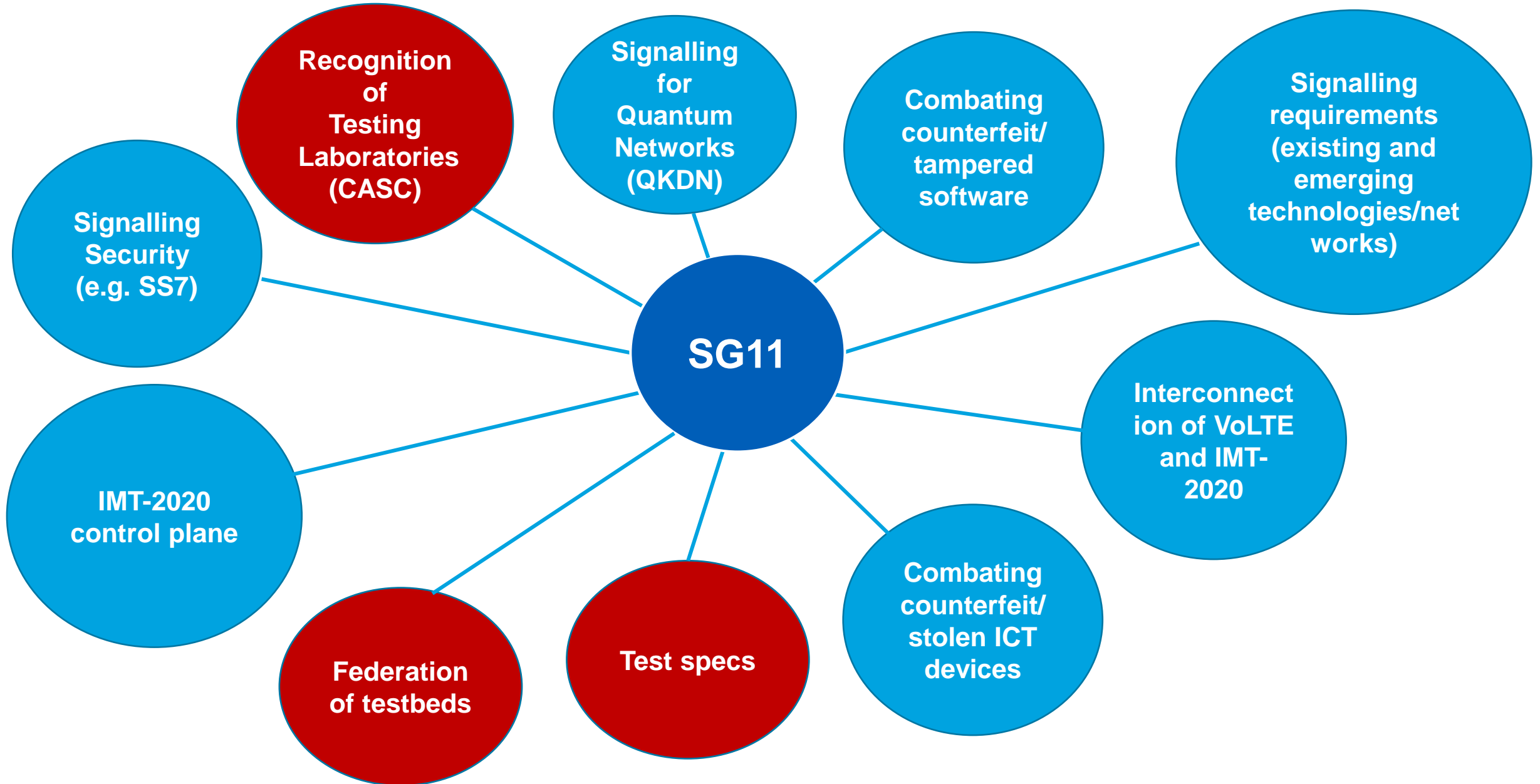
Overview of ITU-T SG11 activities on C&I, including C&I Programme.

João Alexandre Zanon

Vice-Chairman SG11 - Chairman WP4/11

Anatel - Brazil

Key directions of study of ITU-T SG11



ITU Conformance and Interoperability programme (C&I), <http://itu.int/go/citest>

Key pillars:

- Pillar 1: Conformity assessment
- Pillar 2: Interoperability events
- Pillar 3: Capacity building
- Pillar 4: Establishment of test centres and a C&I programme in developing countries

Core ITU Resolutions:

- [Resolution 177 \(PP-22\)](#)
- [Resolution 76 \(WTSA-20\)](#)
- [Resolution 47 \(WTDC-22\)](#)
- [Resolution 62-2 \(RA-19\)](#)

Implementation of C&I programme:

- [ITU-T SG11](#): lead group on testing (<http://itu.int/go/tsg11>)
- All other ITU-T SGs are developing test specifications in areas of their responsibilities
- [ITU-D SG2 \(Q4/2\)](#): assistance to developing countries on implementing C&I programme
- [Conformity Assessment Steering Committee \(CASC\)](#): Testing Laboratories Recognition procedure
- [ITU test events](#)
- [ITU training events on C&I](#)

Contact: conformity@itu.int

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.

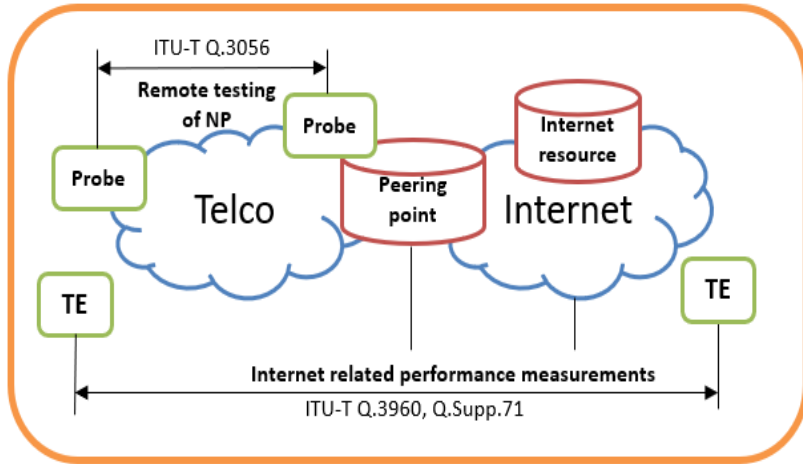
Outcomes:

- **Product Conformity Database** (launched in 2014)
Note: around 500 entries
- **Testing Laboratories database** (launched in 2022)
Note: 11 TLs are registered
- **List of ITU-T Technical experts** (11 experts)
Testing specifications for different ICT technologies
- **Number of test events** (23 events)
- **Number of training events and Workshops**

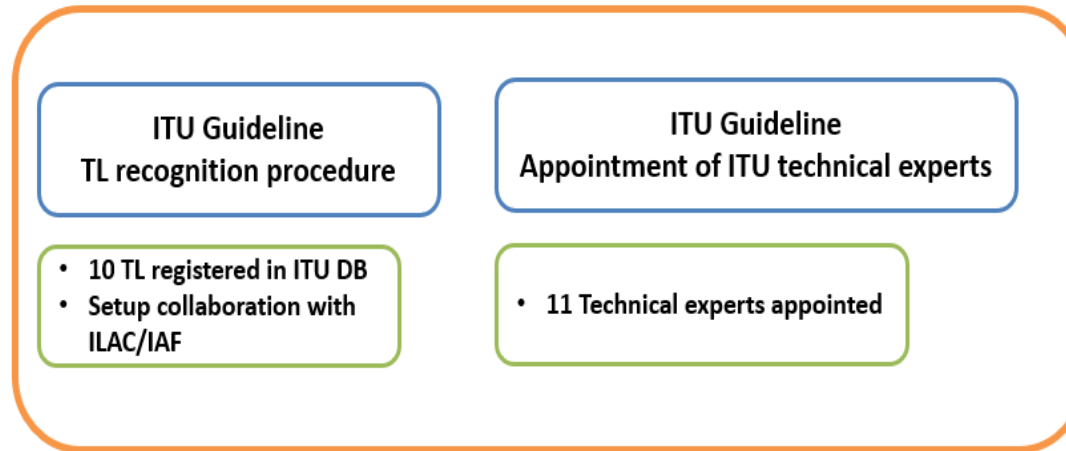


Key achievements: Testing

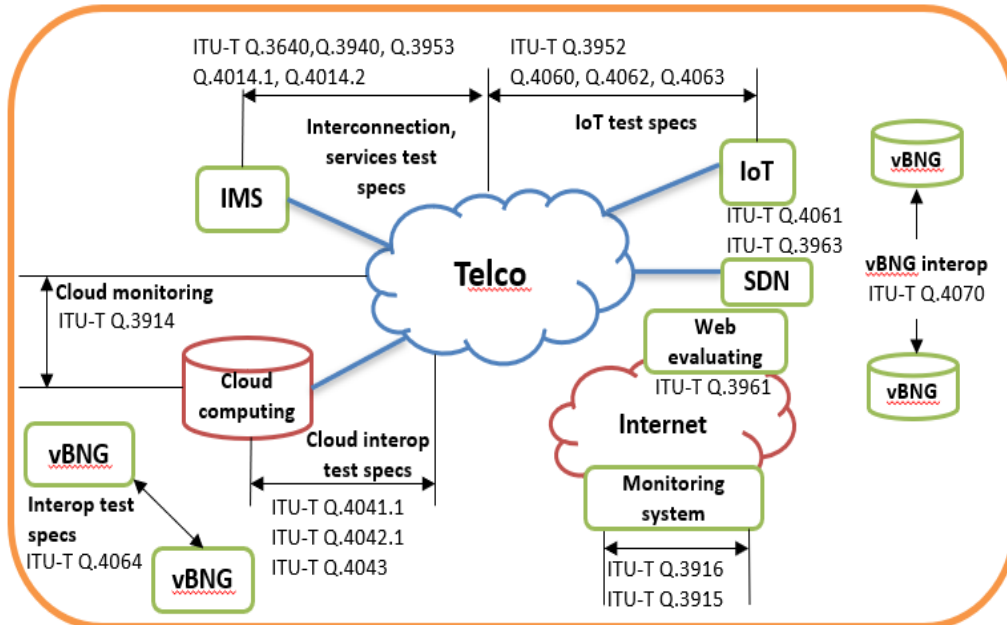
Internet measurements, remote testing



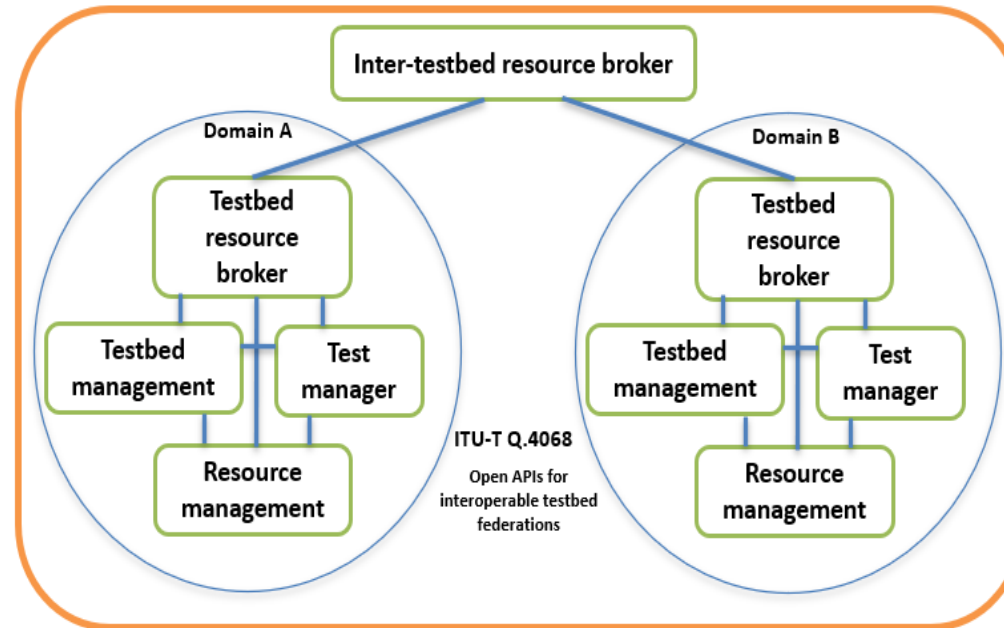
Conformity Assessment Steering Committee



Protocols test specs, monitoring



Testbed federations

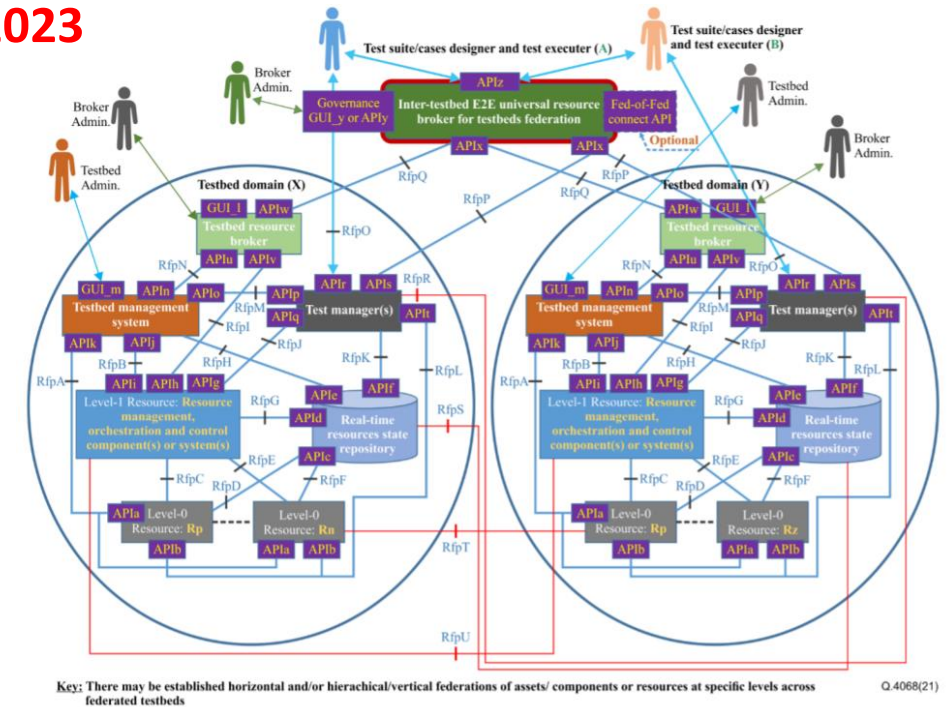


ITU-T Focus Group on Testbeds Federations for IMT-2020 and beyond (FG-TBFxG)

Created in December 2021 (SG11 is a parent group)

[April 2022](#) | [July 2022](#) | [November 2022](#) | [March 2023](#) | **3-5 July 2023**

- Harmonize testbeds specifications across SDOs/Fora
- Develop the required application program interfaces (APIs) aligned with the Testbeds Federations Reference Model (ITU-T Q.4068)
- Define a set of use cases for Federated Testbeds and associated APIs, such as “Testbed-as-a Service” (TaaS)



11 ongoing WIs
(see, [work plan](#))

12 Use cases
(see [D1.1](#))

[ITU-T Q.4068](#) “Open application program interfaces (APIs) for interoperable testbed federations”

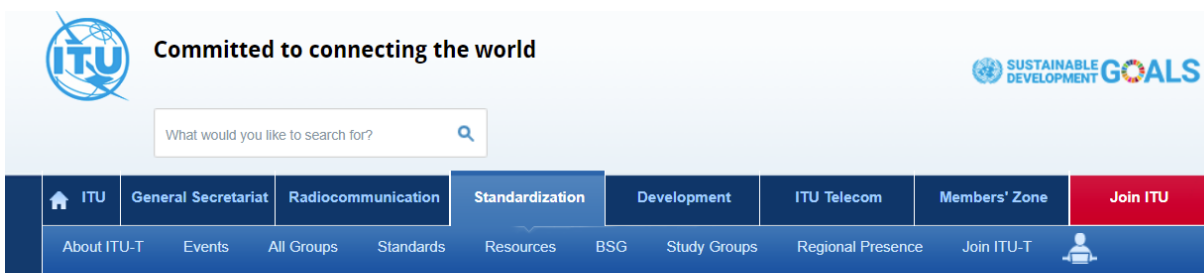
<https://itu.int/go/fgtbf>

Creation of ITU-T Testing Laboratory recognition procedure

2015

SG11 established **ITU-T Conformity Assessment Steering Committee ITU-T CASC**, <http://itu.int/go/casc>

Main objective is elaborate the TL recognition procedure in close collaboration with existing accreditation entities (e.g., IEC, ILAC, IAF, etc.).



Conformity Assessment Steering Committee

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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.

For more background information see [here](#).

TERMS OF REFERENCE

Scope

The ITU-T CASC (Conformity Assessment Steering Committee) is working under the auspices of ITU-T SG11 with the participation of ITU-T experts from all ITU-T SGs.

MEETINGS

Next ITU-T CASC meeting
Geneva, 8 July 2022

- Announcement
- Draft Time Plan
- Cs | TDs

CASC Sharepoint
Note: for interim CASC meetings and appointment teams only

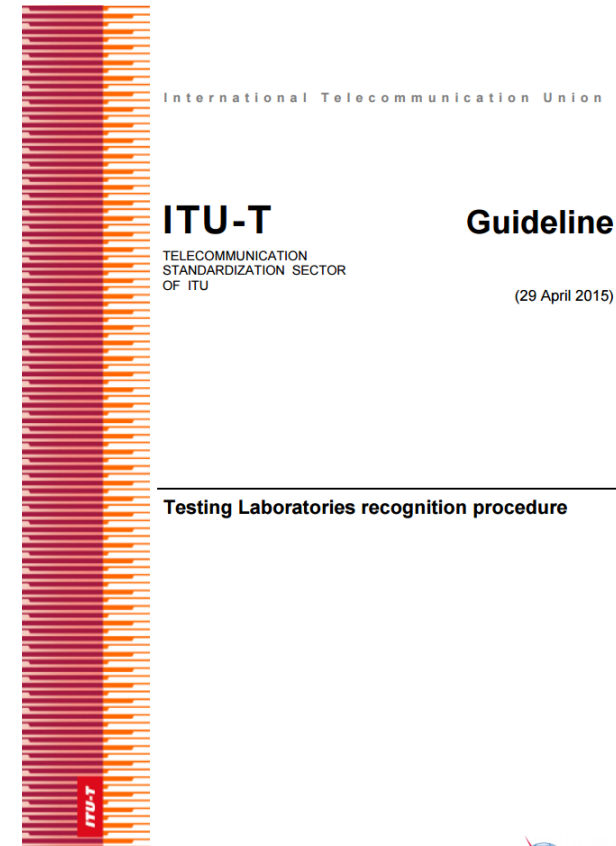
[CASC meetings \(2015-2021\)](#)

ⓘ A **TIES** account is required to access the documents

SG11 agreed a [Guideline on "Testing Laboratories recognition procedure"](#).

It describes the process on how ITU may recognize Testing Laboratories which competence covers ITU-T standards.

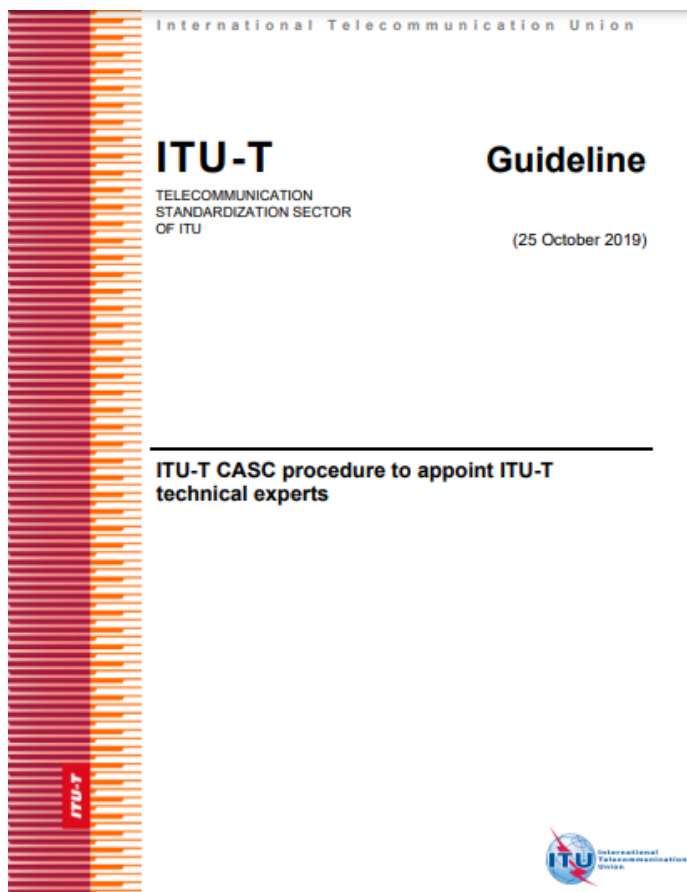
The Guideline was revised in July 2022.



2017-2019

SG11 agreed a Guideline “ITU-T CASC procedure to appoint ITU-T technical experts”.

Those experts could be included in the assessment team of IEC or ILAC in order to evaluate TL which have competence on particular ITU-T Recommendations.



List of ITU-T technical experts appointed by ITU-T CASC

(Geneva, 18 October 2019, ref. Annex C of [SG11-TD1020R1/GEN](#))

#	Name	ITU-T Recommendation	Country	Company	Email
1.	Feng Qi	ITU-T M.3101 (07/1995); ITU-T M.3170.4 (04/2015); ITU-T X.781 (08/2001); ITU-T X.783 (07/2014); ITU-T X.784 (03/2016)	China	BUPT, China	qifeng[at]bupt.edu.cn
2.	Awad Mulah	ITU-T K.48 (09/2006); ITU-T K.116 (11/2015)	Sudan	Telecommunication and Post Regulatory Authority (TPRA), Khartoum-Sudan	awadmulah[at]tpra.gov.sd
3.	Michael Maytum	ITU-T K.12 ITU-T K.77 ITU-T K.82 ITU-T K.95 ITU-T K.102 ITU-T K.129 ITU-T K.117 ITU-T K.20 ITU-T K.21 ITU-T K.45	UK	Bourns Ltd., United Kingdom	m.j.maytum[at]iecc.org
4.	Yuan Zhang	ITU-T H.626 (Rev.), ITU-T H.626.4, ITU-T H.626.5, ITU-T H.627, ITU-T H.627.1	China	China Telecom	zhangyuan1.sh[at]chinatelecom.cn
5.	Haitao Zhang	ITU-T H.626 (Rev.), ITU-T H.626.2, ITU-T H.626.3, ITU-T H.627	China	Beijing University of Posts and Telecomm	zht[at]bupt.edu.cn
6.	Yalan Zhang	ITU-T H.626 (Rev.), ITU-T H.626.2, ITU-T H.626.3, ITU-T H.627	China	Huawei Technologies Co., Ltd	zhangyalan[at]huawei.com
7.	Kai Liao	ITU-T H.626 (Rev.), ITU-T	China	ZTE	liao.kai[at]zte.com.cn

SG11 appointed several ITU technical experts on different ITU-T Recommendations.

2021

SG11 decided that ITU recognizes the Testing Laboratories (TLs) which are accredited by an AB that is a signatory to the ILAC MRA for testing, which scope of accreditation contains ITU-T Recommendation(s).

There are no financial implications for ITU for implementing such procedures. Financial implications for TLs are to be covered by the cost structures of the ABs.

Ref.: SG11 Report, March 2021, [SG11-R42](#)

2022

Key achievements: CASC

- Aligned its ToR with Resolutions of WTSA-20
- Established **collaboration with International Laboratory Accreditation Cooperation (ILAC)** on Testing Laboratory recognition procedure
- Approved the **ITU Guidelines on TL recognition** procedure and appointment of ITU technical experts
- Appointed **11 ITU-T Technical experts** on ITU-T Recommendations H., K., M. and X.series.
- **Recognized 11 TLs** which are accredited by an Accreditation Body (AB) that is a signatory to the [ILAC Mutual Recognition Arrangement \(MRA\)](#) for testing, which scope of accreditation contains ITU-T Recommendation(s).
 - [ITU Operational Bulletins \(OB.1253, OB.1256, OB.1263, OB.1266\)](#)
 - [Newslog](#)

[TSB Circular 368](#)

Testing Laboratories Database

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DISCLAIMER: The database lists Testing Laboratories (TLs) recognized by ITU which compliant with criteria defined in ITU-T Guideline "Testing Laboratories recognition procedure".

The recognition of a TL by ITU does not imply or otherwise suggest approval of a product or that the recognized TL acts as an agent or representative of the ITU. The ITU does not accept any responsibility for the effects or consequences of services provided by the recognized TL on users of such services.

The status as recognized TL for ITU-T Recommendations is valid within the terms of TL accreditation. Once validity is expired, it will be reflected in ITU database for particular TL entry. The recognized TL needs to inform ITU (conformity@itu.int) on any changes in their scope of accreditation and their validity accordingly. In the event of misalignment, it may result in full delisting of TL from ITU Database.

TL Name	Country	Scope of Accreditation (ITU-T Recommendations)	Accreditation body name (AB of ILAC MRA)	Laboratory ID	Validity of accreditation
Hermon Laboratories Ltd	Israel	K.20; K.21; K.41; K.44; K.45; G.703; G.823; G.991.2; G.992.1; G.992.3 Cor. 3; G.992.5 Cor. 1; G.993.1; G.993.2; P.313; P.340; P.370; P.862; P.862.1; P.863; T.30; T.38; Q.552	American Association for Laboratory Accreditation (A2LA)	0839.01	31 May 2023
Bharat Test House Pvt. Ltd.	India	G.664; G.691; G.693; G.694.1; G.695; G.698.3; G.703; G.709; G.783; G.823; G.824; G.825; G.957; G.959.1; G.984.1; G.984.2; G.984.3; G.987.1; G.987.2; G.989.2; G.991.2; G.992.3; G.992.5;	National Accreditation Board for Testing and Calibration Laboratories (NABL)	TC-6451	25 December 2023

MoU between ITU-T, International Accreditation Forum (IAF) and International Laboratory Accreditation Cooperation (ILAC)

24 August 2022: The MoU between ITU-T, IAF and ILAC provides critical support to ITU's Conformance and Interoperability (C&I) programme. Conformance with international standards is one of the core principles underlying the global interoperability of ICT networks and devices.

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.

The purpose of this MoU is to establish effective collaborative linkages between the ITU-T, IAF and ILAC in the area of conformity and interoperability of ICT products, to facilitate achieving the desired level of connectivity and 'usability' of services to the end-users.



MEMORANDUM OF UNDERSTANDING (MoU)
BETWEEN
THE INTERNATIONAL TELECOMMUNICATION UNION
AND
THE INTERNATIONAL ACCREDITATION FORUM
AND
THE INTERNATIONAL LABORATORY ACCREDITATION COOPERATION

1. Parties and Purpose

The Parties

- 1.1 The International Telecommunication Union (hereafter ITU) is the United Nations specialized agency for information and communication technologies (ICTs). It allocates global radio-frequency spectrum and satellite orbits, develops technical standards that ensure networks and technologies seamlessly interconnect, and strives to improve access to ICTs to underserved communities worldwide.
- 1.2 The International Accreditation Forum (hereafter IAF) is the specialised body administering a global multilateral mutual recognition arrangement among accreditation bodies responsible for accrediting conformity assessment bodies including management system certification bodies, product certification bodies, personnel certification bodies and verification and validation bodies, having as their objective the formal recognition of competent conformity assessment bodies, for specified scopes.
- 1.3 The International Laboratory Accreditation Cooperation (hereafter ILAC) is the specialised body administering a global multilateral mutual recognition arrangement (MRA) among accreditation bodies responsible for accreditation of conformity assessment bodies including calibration laboratories, testing laboratories, medical laboratories, inspection bodies, proficiency testing providers, reference material producers and biobanks, having as their objective the formal recognition of competent conformity assessment bodies, for specified scopes.

The Purpose

- 1.4 The purpose of this MoU is to establish effective collaborative linkages between the Parties in the area of conformity and interoperability of ICT products, to facilitate achieving the desired level of connectivity and 'usability' of services to the end-users.

ITU Testing Laboratories Database (TLDB)

<http://itu.int/go/tldb>

In order to be recognized by the ITU, Testing Laboratories (TL) shall be:

- accredited by an Accreditation Body that is a signatory to the ILAC MRA for Testing (using ISO/IEC 17025)
Note: the list of ABs is available at: <https://ilac.org/signatory-search/>.
- have ITU-T Recommendations in the TL's scope of accreditation





[Ref: revised ITU-T Guideline, July 2022](#)

[According to ITU Guideline:](#) *“Based on received applications, if they are in line with the criteria defined in cl.9, TSB Director is asked to register the Testing Laboratory in the ITU Testing Laboratory Database accordingly.”*

Any TL including non-ITU members are encouraged to apply

ITU Testing Laboratories Database - Application form

YOU ARE HERE: HOME > ITU-T > ITU CONFORMITY AND INTEROPERABILITY > ITU TESTING LABORATORIES DATABASE - APPLICATION FORM

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1. APPLICANT

Testing Laboratory Name * :

Note: please provide the name as identified by the Accreditation Body of ILAC MRA signatory in the scope of accreditation

Laboratory ID :

Note: please indicate the registration number provided by the Accreditation Body of the ILAC MRA signatory to the testing laboratory, if applicable

Accreditation validity * : 
(yyyy-MM-dd)

Note: please indicate the date when the given accreditation is expired

Street/P.O. Box * :

Town/City * :

Country * :

Website * :

Contact Person * :

Job title * :

Phone * :

Email * :

2. ACCREDITATION INFORMATION

Accreditation body name * :

Note: please provide the name of the Accreditation Body that need to be an ILAC MRA signatory in testing

Email of Accreditation Body * :

Website * :

The request needs to be sent via [online form](#).

It is available on ITU C&I Portal:

<http://itu.int/go/citest>

ITU Product Conformity Database (PCDB)

<http://itu.int/go/tcdb>

The PCDB can be populated by **testing laboratories, conformity assessment bodies (CABs), vendors and others, including non-members of ITU**, provided that the product is either (see [here](#)):

- **tested** by a testing laboratory which has an **accreditation with ISO/IEC 17025** and at least one ITU-T Recommendation; or,
- **certified** to be in conformance with at least one **ITU-T Recommendation** by a CAB with ISO/IEC 17065 accreditation
- **tested** by testing laboratory recognized by ITU (accredited by ILAC MRA signatories AB which have ITU Recommendations in its scope of accreditation), see [ITU-T Guideline](#).

Product is to be **tested to applicable ITU-T Recommendations using ITU-T test specifications or procedures adopted by an SDO** or forum qualified in accordance with Recommendation ITU-T A.5.

At this early stage of the database's implementation, the entry of products is possible through two other channels:

- if these products were tested in an [ITU test event](#)
- as part of an ITU conformity testing [pilot project](#)

[Online application form](#)

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

Product	Company	Model Number	Conformity to ITU-T Recommendation
HealthUp HIS	Openit, Inc.	OI-PROD-HU-HIS	
nHealthcare - Smart Healthcare	NTELS Co., LTD	NSH-16	
NoninConnect - Connected Fingertip	Nonin	3230, 3240, and 3245	
Accu-Chek Instant (BTLE & USB) and Instant S meter (USB)	Roche	958	
Wireless Blood Glucose Meter	Ascensia Diabetes Care	Contour Next ONE and Contour Plus ONE	
Windriver Intel Manager (Bluetooth HDP)	Wind River	BT App	
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)

Applicant

Company Name *

Category of applicant *
(The relevant confirmation from a vendor is required if the applicant is not the vendor)

Testing Laboratory
 Certification Body
 Customer
 Vendor
 Standardization Development Organization
 Other (please specify below)

Street/PO Box *

Town/City *

Country *

E-mail *

testing laboratory.

Contacts

- zanon@anatel.gov.br
- denis.andreev@itu.int (SG11 Advisor)
- tsb11@itu.int
- <http://itu.int/go/tsg11>

