



**ITU-T SG11
WORK UPDATES AND ACTIVITIES**

**KOFI NTIM YEBOAH-KORDIEH
NATIONAL COMMUNICATIONS AUTHORITY
GHANA**

CONTENT

- OVERVIEW OF SG11
- CONFORMITY AND INTEROPERABILITY
- CONFORMITY ASSESSMENT STEERING COMMITTEE
- QUESTION 15

SG11 in a nutshell

Title: Signalling requirements, protocols, test specifications and combating counterfeit products

SG11 is home to **SS7** and holds expertise in:

Signalling architectures, requirement and protocols for legacy and future networks

Conformance & Interoperability

Test methodologies and specifications

Benchmark testing

Combating counterfeiting and stolen ICT devices

Our Mission

To develop protocols and test specifications to achieve consistent end-to-end interoperability of systems and networks





CONFORMITY AND INTEROPERABILITY



Conformity Assessment Steering Committee ([CASC](#))

- ➔ Working on a test laboratory recognition procedure in ITU-T
- ➔ Collaboration with IECEE (TF "ITU Requirements")
- ➔ Two guidelines approved
- ➔ Third guideline ongoing

Recommendations

- ➔ SIP-IMS conformity assessment [work plan](#) (**57** new Recs)
- ➔ Benchmarking of IMS platform [work plan](#) (**10** new Recs)
- ➔ Conformance test plan for Number Portability requirements in Q Sup.4 (Q.3905)
- ➔ Cloud computing test specifications (Q.4040, Q-Sup.65)
- ➔ Model network for IoT testing

Tools

- ➔ Living list of [key technologies](#) suitable for C&I testing
- ➔ [Reference table](#) of ITU-T Recs and test specifications
- ➔ [Pilot projects](#) among SGs

www.itu.int/go/citest

ON-GOING
WORK

Conformity Assessment Steering Committee, CASC (1/4)

Rev. Resolution 76 (WTSA-16)

“Studies related to conformance and interoperability testing, assistance to developing countries, and a possible future ITU Mark programme”

Recognizing

...

j) that **it is not appropriate for ITU itself to enter into certification and testing of equipment and services** that many regional and national standards bodies also provide for conformance testing;

instructs the Study Groups

...

to submit to CASC a list of **ITU T Recommendations which could be candidates for the joint IEC/ITU certification scheme**, taking into account market needs

instructs the ITU-T Conformity Assessment Steering Committee

...

to study and define a **procedure to recognize testing laboratories** that are competent to test according to ITU-T Recommendations, in **collaboration** with existing certification schemes **such as that of IEC**



ON-GOING
WORK

Conformity Assessment Steering Committee, CASC (2/4)

ITU-T CASC and IECEE collaboration:

- **Recognition of Testing Laboratories which perform testing against ITU-T Recommendations**

(any laboratories, including non-ITU members may apply for such recognition)

Note: application should be submitted to IECEE once the special dedicated IECEE service will be put in place (this service will be available once it is approved at the IEC Certification Management Committee)

- **Joint ITU/IECEE certification scheme on particular ITU-T Recommendations**

Note: all ITU-T SGs were requested to provide their proposal regarding potential ITU-T Recommendations, which may become subject for a future ITU/IEC joint certification scheme, taking into consideration market needs

(currently, there are 4 proposed ITU-T Recs – K.116, P.1100, P.1110, P.1140)





Conformity Assessment Steering Committee, CASC (3/4)

Recognition of Testing Laboratories

- IECEE Task Force (IECEE and ITU-T CASC experts) finalized OD “ICT Laboratory Recognition Service on ITU-T Recommendations”
- ITU-T CASC will appoint ITU-T technical experts who have competence in particular ITU-T Recommendations (received 2 applications from candidates on ITU-T SG2 and ITU-T SG5 Recommendations)
Note: the ITU-T technical experts might be included in the IECEE assessment team to assess Tls
- ITU-T CASC is developing the third Guideline “ITU-T CASC collaboration procedure with IECEE for TL recognition service on ITU-T Recommendations” (to be agreed in October 2019)



OD-XXXX
Edition 1.0 2019-04-13

IECEE PUBLICATION

IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE System)
ICT Laboratory Recognition Service on ITU-T Recommendations

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Conformity Assessment Steering Committee, CASC (4/4)

ON-GOING
WORK

Potential technologies for TL recognition

Existing standards

1. **EMC (SG5)**
Recs: K.21/K.44, K.116, K.series
2. **Hands-free connectivity (SG12)**
Recs: P.1100/P.1110
3. **4G Interconnection (VoLTE) (SG11)**
Recs: Q.3640/Q.3953, new recs on distributed ENUM
4. **Mobile universal charger solution (SG5)**
Recs: L.1000/L.1005
5. **GPON (SG15)**
Recs: G.984/BBF ATP247, G.series
6. **G.fast (SG15)**
Recs: G.9700/BBF IR-337/WT-380
7. **Video coding (SG16)**
Recs: H.264/H.264.1, H.265/H.265.1
8. **IPTV (SG16)**
Recs: H.701/HSTP.CONF-H701, H.702/HSTP.CONF-H702
9. **IoT (SG20)**
Recs: Y.4500.1-32/Q.3954/Q.3955

Ongoing study

1. **IoT identification (SG20, SG11)**
WIs: Y.IoT-IoD-PT (SG20)/Q.39_FW_Test_ID_IoT (SG11)
2. **LTE, 3G/2G user Equipment/mobile stations (UE/MS) for over-the-air performance testing**
Guideline Test_UE/MS
3. **Cable television services (SG9)**
R-REC0J.5DOCSIS

The [reference table](#) of ITU-T Recommendations to be used for conformity/interoperability assessment ([SG11-TD632/GEN](#), Geneva, July 2018)





ON-GOING
WORK

Testing specifications for emerging technologies

Q.TP_AR: Testing procedures of Augmented Reality applications

Q.vbng-iop-reqts: Interoperability testing requirements of virtual Broadband Network Gateway

Q.SDN-OFT: The compatibility testing of SDN-based equipment using different versions of OpenFlow protocol

Guideline-TEST_UE/MS: Guideline for general test procedure and specification for measurements of the LTE, 3G/2G user Equipment/mobile stations (UE/MS)



Combating Counterfeiting ICT Equipment

Background

[Resolution 188 \(PP-18\)](#): Combating counterfeit telecommunication/information and communication technology devices

[Resolution 96 \(WTSA-16\)](#): ITU Telecommunication Standardization Sector studies for combating counterfeit telecommunication/information and communication technology devices

Technical Report on
“[Counterfeit ICT Equipment](#)”
(2014, rev. 2015)

[QTR-CICT](#)
Survey report on counterfeit ICT devices in Africa region
(02-2017)

[ITU-T Q.5050](#)
Framework for solution to combat counterfeit ICT devices
(03-2019)

Past Events



Workshop on Combating counterfeit and substandard ICT devices
([November 2014](#))



Demo on a solution to combat Counterfeiting of ICT products based on the Digital Object Architecture
([April 2015](#))



Workshop on Combating counterfeit using conformance and interoperability solutions
([June 2016](#))



Workshop on on Global approaches on combating counterfeiting and stolen ICT devices + demo
([July 2018](#))

COMPLETED
WORK



Q15/11

- Question 15 of ITU-T Study Group 11 (Q15/11) focused on the development of recommendations and technical reports on combating counterfeit ICT equipment.
- Q15 has developed TR on Counterfeit ICT Devices and Published by ITU
- A number of new work items have been established.

Resolution 2 of WTSA-16 – SGs responsibility and mandates

ITU-T SG11 Lead study group on **combating counterfeiting** and the use of **stolen ICT devices**

AREAS OF STUDY OF ITU-T SG11: studies to **combat counterfeiting products** including telecommunication/ICT and **mobile device theft**

■ Q15/11 Questions:

- ❑ What technical reports are needed to **raise awareness** of the problem of counterfeiting of ICT equipment and the dangers they pose?
- ❑ Can **Conformity and interoperability** testing and assessment schemes be used to combat counterfeit ICT equipment?
- ❑ What **technologies may be used** as a tool for combating counterfeit, tampered and stolen ICT equipment?
- ❑ What **identity management frameworks** are appropriate to combat counterfeit and stolen ICT equipment with their identity modified?
- ❑ What kind of **Recommendations, technical reports and guidelines should be developed** to combat ICT **counterfeiting**, tampering, modification and/or duplication of unique device identifiers?
- ❑ What kind of **Recommendations, frameworks, technical reports and guidelines should be developed** to assist ITU Members, in cooperation with ITU-D Sector, on combating counterfeit and mitigate the use of **stolen** ICT equipment?
- ❑ What ITU Recommendations are required to **secure the supply chain management** (from manufacturing, importation, distribution and marketing) to ensure traceability, security, privacy and trust of people, products and networks?

Resolution 2 of WTSA-16 – SGs responsibility and mandates

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■ Q15/11 Task:

- ❑ Develop Recommendations, technical reports and guidelines to assist ITU Members, in cooperation with ITU-D Sector, on combating **counterfeit** ICT equipment
- ❑ Develop Recommendations, technical reports and guidelines to address the problem of stolen ICT equipment and to assist the Member States, in cooperation with ITU-D Sector, in deploying solutions to and mitigate the use of **stolen** equipment
- ❑ Study any possible solutions, including **identity management frameworks**, to combat counterfeit and stolen ICT equipment with their identities modified
- ❑ Study any technologies that can be used as a tool for combating counterfeit and tampered ICT equipment
- ❑ Organize workshops and events across ITU regions in cooperation with the ITU-D Sector to promote the work of ITU-T in this field and involve stakeholders
- ❑ Study possible **conformity and interoperability testing (C&I) solutions** to combat counterfeiting of ICT equipment, taking into account the activities of the ITU-T CASC
- ❑ Study results achieved by various international standardization bodies and develop technical specifications to feed the standardization work of the Question

Combating counterfeiting and mobile device theft

- [Technical Report](#) - Guidelines on Best Practice and Solutions for Combating Counterfeit ICT Devices
- Following the decisions of Council-18 ([C18/107, clause 2](#)), the contribution received and the report prepared by TSB, ITU-T SG11 decided to start a new **Technical Report [TR-RLB-IMEI](#): "Reliability of IMEI identifier"**.
Note: it contains a study about key vulnerabilities on IMEI reprogramming on mobile devices and proposals to improve IMEI reliability
- SG11 started the new **Technical Report [TR-CF-QoS](#): Impact of Counterfeit Mobile devices on Quality of Service** that aims to study the negative effects and impact of counterfeit mobile devices on network's quality of service along with the negative effects and service degradation experienced by the mobile subscribers.
Note: SG11 is in touch with SG12 on this matter

Combating the use of stolen ICT devices

- WTSA-16 Resolution 97: Combating mobile telecommunication device theft
- SG11 is developing [Q.FW_CSM](#): Framework for Combating the use of Stolen Mobile ICT Devices (updated in October 2018)
- Action plan for Implementation of WTSA-16 Resolution 97 ([SG11-TD115R2/GEN](#))
- [ITU Workshop](#) on Global approaches on combating counterfeiting and stolen ICT devices, 23 July 2018 (during next ITU-T SG11 meeting)





**THANK
YOU**