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| itu_logo | | **International Telecommunication Union**  **Telecommunication Standardization Bureau** | |  |
|  | | | Geneva, 18 December 2015 | |
| Ref: | **TSB Circular 189**  COM 11/SP | | - To Administrations of Member States of the Union | |
| Tel: | +41 22 730 5858 | |
| Fax: | +41 22 730 5853 | |
| E-mail: | [tsbsg11@itu.int](mailto:tsbsg11@itu.int) | | **Copy:**  - To ITU-T Sector Members;  - To ITU-T Associates;  - To ITU Academia;  - To the Chairman and Vice-Chairmen of Study Group 11;  - To the Director of the Telecommunication Development Bureau;  - To the Director of the Radiocommunication Bureau | |
| Subject: | **Approval of revised Questions 2/11 and 8/11** | | | |

Dear Sir/Madam,

1 At the request of the Chairman of Study Group 11 (*Signalling requirements, protocols and test specifications*), I have the honour to inform you that, in accordance with the procedure described in Resolution 1, Section 7, § 7.2.2, of WTSA (Dubai, 2012), Member States and Sector Members present at the last meeting of this Study Group which was held in Geneva from 2 to 11 December 2015, agreed by reaching consensus to approve the following revised Questions:

Question 2/11, Signalling requirements and protocols for service and application in emerging telecommunication environments (see Annex 1)

Question 8/11, Guidelines for implementations of signalling and protocols, and for addressing counterfeit ICT devices (see Annex 2)

2 **Questions 2/11 and 8/11 are therefore approved.**

3 The resulting Recommendations are assumed to fall under the Alternative approval process (AAP) for Question 2/11 and under both Traditional approval process (TAP) and Alternative approval process (AAP) for Question 8/11.

Yours faithfully,

Chaesub Lee  
Director of the Telecommunication  
Standardization Bureau

**Annexes: 2**

## Annex 1 (to TSB Circular 189)

## Question 2/11 ‑ Signalling requirements and protocols for service and application in emerging telecommunication environments

(Continuation of Questions 2/11 and 3/11)

### 1 Motivation

With the ever-increasing number of services and applications, demand has been continuously increasing to enhance the capabilities of next generation networks (NGN), which will enable the Internet of things (IoT), machine-to-machine (M2M), cloud computing, smart pipeline, smart cities, smart home, smart transportation, e-health, etc. These emerging applications and services, as well as the evolution of existing applications and services, are introducing more and more requirements, which will certainly impact on the signalling and protocol standardization.

One of the objectives of NGN evolution is to support, in a secure fashion, wide range of services, from legacy telephony and intelligent services to new generation services, encompassing audio, data, video broadcast and conversational services, streaming services, interactive games, third party applications, etc.

### 2 Question

Study items to be considered include, but are not limited to:

– What new recommendations are required to specify signalling requirements and protocols for NGN?

– What enhancements should be made in existing NGN-related recommendations to support emerging services and applications?

– What new recommendations should be made to support emerging services and applications in future networks?

– What new recommendations should be made for cloud computing-related services and applications? What associated mechanisms are required to guarantee signalling and control security?

– What signalling requirements and entities are required to support services and/or applications of public interest, such as multimedia emergency communications, privacy, lawful interception, number portability, etc.?

### 3 Tasks

Tasks include, but are not limited to:

– Develop signalling requirements and protocol profiles for NGN services and applications

– Develop signalling requirements and protocols to support IoT and M2M services and applications

– Develop signalling requirements and protocols to support cloud computing-related services and applications

– Enhance existing signalling protocols based on identified needs

– Develop specifications for interworking between new and existing signalling and protocols

– Develop signalling requirements and protocol profiles for public interest.

An up-to-date status of work under this Question is contained in the SG 11 work programme (<http://itu.int/ITU-T/workprog/wp_search.aspx?Q=2/11>)

### 4 Relationships

### Recommendations

– Q.600, Q.700, Q.900-series, Q.1900, Q.2700, Q.2900, Q.3400-series, and Q.3600-series

### Questions

– 1/11 on signalling and control architecture

– 4/11 on resource control and signalling

– 7/11 on network attachment control and signalling

### Study groups

– SG 13 on service requirements, architecture, cloud computing and mobility aspects

– SG 15 on smart grid

– SG 16 on multimedia services and applications

– SG 17 on security aspects

– SG 2 on network management aspects and emergency communications

### Standardization bodies

– 3GPP; DMTF; ONF

– IETF; IEEE, Zigbee; IPSO; etc.

– One M2M; Continua Health Alliance

## Annex 2 (to TSB Circular 189)

## Question 8/11 ‑ Guidelines for implementations of signalling ~~requirements~~ and protocols, and for addressing counterfeit ICT devices

(Continuation of Question 6/11)

### 1 Motivation

~~Networks and p~~Protocols in packet-based networks are evolving. ~~Progress~~ Ongoing studies and results achieved by various international standardization bodies ~~has~~ have led to the emergence of different solutions to address convergence and interoperability.

~~Many~~ The ITU Member States, particularly those in developing countries have expressed the~~ir~~ needs for assistance in understanding ~~how the various ITU‑T recommendations can be used. Guidelines are needed to assist ITU Members in deciding on~~ network and service deployment strategies and scenarios.  ~~in relation to new networks and services.~~

Several forums and conferences have also called for ITU assistance in addressing the growing problem of counterfeit telcommunication/ICT products and devices, which is adversely affecting all stakeholders in the ICT field (vendors, governments, operators and consumers). Cooperation among ITU‑T study groups, between ITU‑T and ITU‑D as well as with external bodies outside the ITU (in particular with SDOs), ~~is~~ will be required to gather a complete information in this regard~~to deliver valuable guidelines~~.

Coordination among relevant organizations is also necessary to fulfil these tasks.

### 2 Question

Study items to be considered include, but are not limited to:

– What activity is needed in the ITU‑T Sector to prepare common guidelines by the ITU‑T and ITU‑D Sectors, containing different aspects related to technical matters, in particular to address counterfeiting of ICT devices, and compare approaches to network testing and benchmarking?

– What should be taken into account to assure adequate security in the deployment of packet-based networks?

– What functional architecture and entities are required to support services and/or applications of public interest such as emergency call handling, lawful interception, number portability, etc.?

– What should be taken into account to provide energy savings, directly or indirectly, in information and communication technologies (ICTs) or in other industries?

### 3 Tasks

Tasks include, but are not limited to:

– identify network interconnection scenarios;

– coordinate ITU‑T Sector inputs to produce guidelines in cooperation with the ITU‑D Sector, that would include (the inputs shall include any technical aspects as prepared by the relevant study groups):

– identification of protocols consistent with the existing and new service requirements of administrations/operators, for migration from circuit switched networks to packet based networks in the evolution towards NGN/SUN;

– degree of interoperability for services between networks employing different protocols;

– guidelines to address the problem of counterfeiting of ICT devices;

– generic guidelines covering aspects of network testing and monitoring;

– generic guidelines for approaches to networks and services benchmarking including approaches of QoS/QoE monitoring system development.

– prepare the technical guidelines on the signalling requirements and protocol aspects of packet-based networks to support PSTN/ISDN services and their evolution to NGN/SUN.

An up-to-date status of work under this Question is contained in the SG 11 work programme (<http://itu.int/ITU-T/workprog/wp_search.aspx?Q=8/11>).

### 4 Relationships

**Resolutions**

– Resolution 177 (Guadalajara, 2010) of the Plenipotentiary Conference, on conformance and interoperability, which instructs the Director of the BDT ,in close collaboration with the Director of the TSB and the Director of the BR, to assist Member States in addressing their concerns with respect to counterfeit equipment

– Resolution 79 (Dubai, 2014) of the WTDC, on the role of telecommunications/ICT in combating and dealing with counterfeit[[1]](#footnote-1) telecommunication/ICT

**Recommendations**

– As required

**Questions**

– All Questions of SG11, especially Questions relating to control, signalling architectures and protocols

**Study groups**

– ITU‑T SG2 on operational aspects of service provisioning and telecommunication management

– ITU‑T SG12 on network QoS and performance aspects

– ITU‑T SG13 on principles, requirements, frameworks and architectures for an overall heterogeneous network environment

– ITU‑T SG16 on multimedia architecture, data networks and telecommunication software aspects

– ITU‑D SG1 and SG2

**Standardization bodies**

– Asia-Pacific Telecommunity Standardization Program (ASTAP), CITEL, SADC, EACO, WATRA, ATU, Maghreb, ETSI, IETF and similar organizations.

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1. Counterfeit telecommunication/ICT devices include counterfeit and/or copied devices and equipment as well as accessories and components. [↑](#footnote-ref-1)