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| **Telecommunication Standardization Bureau** |  |
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Geneva, 16 September 2013

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| - To Administrations of Member States  of the Union  **Copy:**  - To ITU-T Sector Members;  - To ITU-T Associates;  - To ITU-T Academia;  To the Chairman and Vice-Chairmen  of Study Group 17;  - To the Director of the Telecommunication Development Bureau;  - To the Director of the Radiocommunication Bureau |

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| Subject | **Approval of revised Question 6/17** |

Dear Sir/Madam,

1 At the request of the Chairman of Study Group 17, *Security*, 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 26 August to 4 September 2013, agreed by reaching consensus to approve the following revised Question:

*Question 6/17, Security aspects of ubiquitous telecommunication services* (see Annex 1)

2 **Question 6/17 is therefore approved.**

3 The proposed selection of the approval process for the resulting Recommendations of revised Question 6/17 was agreed to be the traditional approval process (TAP), in accordance with Resolution 1, Section 8.2, of WTSA (Dubai, 2012).

Yours faithfully,

Malcolm Johnson  
Director of the Telecommunication  
Standardization Bureau

**Annex: 1**

ANNEX 1  
(to TSB Circular 54)

Text of revised Question 6/17

**Question 6/17 – Security aspects of ubiquitous telecommunication services**

Continuation of Q6/17)

**Motivation**

Recommendation ITU‑T X.1101 provides the security requirements and framework for multicast communication. Recommendations ITU‑T X.1111, X.1112, X.1113 and X.1114 describe the security framework for home network including the device certificate profile, authentication mechanism, and authorization framework. Recommendations ITU‑T X.1121, X.1122, X.1123, X.1124, and X.1125 provide a comprehensive specification on security for mobile network. Recommendations ITU‑T X.1171, X.1311, X.1312 and draft Recommendation ITU‑T X.usnsec-3 specify the privacy framework for mobile NID services, the security framework for USN (ubiquitous sensor network), USN middleware security guideline and security requirements for wireless sensor network routing, respectively. Recommendations ITU‑T X.1191, X.1192, X.1193, X.1194, X.1195 and draft Recommendations ITU‑T X.iptvsec-4, X.iptvsec-6, X.iptvsec-7 and X.iptvsec-8 describe a comprehensive set of requirements, mechanisms and framework for security of IPTV services. Draft Recommendation ITU‑T X.msec-6 provides security aspects of mobile phones. A continued effort to maintain and enhance these security Recommendations to satisfy the needs of emerging ubiquitous technologies and services is required.

 The ubiquitous telecommunication service refers to the service that allows anyone to access to any desired information in a user-friendly way, anytime and anywhere using any devices. The telecommunications industry has been experiencing an exponential growth in area of mobile technology based ubiquitous telecommunication services. Specifically, security of domain-specific ubiquitous telecommunications among heterogeneous devices for the application-level technologies such as ubiquitous sensor network (including Internet of Things (IoT), Machine to Machine (M2M) and Intelligent Transportation Systems), home network, smart grid, mobile network (including Near Field Communication (NFC) and smartphone), multicast network, IPTV network, etc., are crucial for the further development of the industry, network operators and service providers.

Standardization of the best comprehensive security solutions is vital for the network operators and service providers that operate in a multi-vendor international ubiquitous environment. Due to some specific characteristics of the mobile telecommunications (e.g., over the air transmission, limited computing power and memory size of the small mobile devices), providing security is an especially challenging task that deserves special attentions and study.

Recommendations under responsibility of this Question as of 1 December 2012: X.1101, X.1111, X.1112, X.1113, X.1114, X.1121, X.1122, X.1123, X.1124, X.1125, X.1171, X.1191, X.1192, X.1193, X.1194, X.1195, X.1196, X.1197, X.1311, X.1312, and X.1313.

Texts under development: X.1126 (X.msec-6), X.iptvsec-8, X.msec-7, X.msec-8, X.sgsec-1, and X.unsec-1.

**Question**

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

1. How should security aspects of ubiquitous telecommunication services be identified and defined in mobile telecommunication
2. How should threats behind ubiquitous telecommunication services be identified and handled?
3. What are the security technologies for supporting ubiquitous telecommunication services?
4. How should secure interconnectivity between ubiquitous telecommunication services be kept and maintained?
5. What security techniques, mechanisms and protocols are needed for emerging ubiquitous telecommunication services, especially for emerging digital content protection services?
6. What are the global security solutions for ubiquitous telecommunication services (e.g. including services for smart grid and intelligent transport systems which are based on telecommunication/ICT networks) and their applications?
7. What are the best practices or guidelines for secure ubiquitous telecommunication services and their applications?
8. What enhancements to existing Recommendations under review or new Recommendations under development should be adopted to reduce impact on climate changes (e.g., energy savings, reduction of greenhouse gas emissions, implementation of monitoring systems) either directly or indirectly in telecommunication/ICT or in other industries?

**Tasks**

Tasks include, but are not limited to:

1. In collaboration with other ITU‑T study groups and standards development organizations, especially with IETF, ISO/IEC JTC 1/SCs 6, 25, 27 and 31, produce a set of Recommendations for providing comprehensive security solutions for secure ubiquitous telecommunication services.
2. Review existing Recommendations/Standards of ITU‑T, ISO/IEC and other standardization bodies in the area of home network, smart grid, mobile network (including smartphone security), mobile IoT service and ubiquitous sensor network to identify secure ubiquitous telecommunication services.
3. Study further to define security aspects of ubiquitous telecommunication services for a multi-vendor international ubiquitous environment, and for emerging new services (e.g., for those for intelligent transport systems and smart grid which are based on telecommunication/ICT networks).
4. Study and identify security issues and threats in secure ubiquitous telecommunication services.
5. Study and develop security mechanisms for secure ubiquitous telecommunication services.
6. Study and develop interconnectivity mechanisms for secure ubiquitous telecommunication services in a single or multi-vendor ubiquitous environment.

**Relationships**

**Recommendations:**

* X-series and others related to security

**Questions:**

* ITU‑T Questions 1/17, 2/17, 3/17, 4/17, 5/17, 7/17, 8/17, 9/17, 10/17, 11/17, 8/13, 7/13, 13/16 and 21/16

**Study Groups:**

* ITU‑T SGs 9, 11, 13 and 16, JCA-SG&HN, JCA-IPTV and JCA-IoT; ITU-R

**Standardization bodies**:

* ISO/IEC JTC 1/SCs 6, 25, 27 and 31; IEC SMB WG3 and TC57; IETF; 3GPP; 3GPP2; OMA; GSMA

**Other bodies**:

ETSI; ATIS; TTC; TTA; CCSA; OIPF; DVB; NFC Forum; NIST.

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