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| **TSAG** | |
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| **TD** | | | | |
| **Source:** | | Chairmen ITU-T SG2, SG16 and SG20 | | |
| **Title:** | | Adjustments to harmonize the WTSA-20 proposals by SG16 and SG20 | | |
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| **Keywords:** | WTSA-20 preparations; Mandate harmonization; |
| **Abstract:** | At the RG-WP rapporteurs meeting in August 2020, the chairmen of ITU-T SG16 and SG20, in consultation with the SG2 chairman, were tasked with arriving at a compromise proposal for harmonizing their respective mandates. Consultations were held and the attached contains the suggested changes for TSAG review. |

At the SG16 final meeting in this study period held 22 June – 3 July 2020, the WTSA-20 preparations were completed. TSAG has seen the SG16 proposal in [TSAG-TD884](https://www.itu.int/md/T17-TSAG-200921-TD-GEN-0884/en) (and its R1, with redlines).

At the SG20 final meeting in this study period held 6-16 July 2020, the WTSA-20 preparations were also completed. TSAG has seen the SG20 proposal in [TSAG-TD883](https://www.itu.int/md/T17-TSAG-200921-TD-GEN-0883/en) (and its R1, with redlines).

During the consultations with the SG2, SG16 and SG20 chairmen, the following was noted:

* The changes for both study groups are an update in the description of work currently *ongoing* at the end of this study period.
* SG16 changes reflect ongoing, not new, areas of work. The terminology was refreshed, and this may give the perception of potential overlap of mandates.
* The SG16 and SG20 chairmen recognized that the work was well coordinated during the study period. They expect that this good coordination and cooperation will continue in the next study period.
* Clarification is needed that services studies in SG16 refer to *multimedia* services, to avoid confusion with services under the responsibility of SG2.
* The SG chairs discussed the changes proposed by the SGs and agreed to improvements aiming to clarify to an external reader the specific lines of work.

The annexes hereinafter indicate in delta format the changes to the SG16 and SG20 proposals to the Assembly that would, in the opinion of the SG2, SG16 and SG20 chairs, address the perceived overlap of mandate.

Annexes:

1. Adjusted SG16 title, mandate, lead roles and points of guidance (WTSA Res.2)
2. Adjustments to the title or text of Questions proposed by SG16 for the 2021-2024 study period
3. Adjusted SG20 mandate, lead roles and points of guidance (WTSA Res.2)

##### Adjusted SG16 title, mandate, lead roles and points of guidance (WTSA Res.2)

This annex contains the title, mandate, lead Study Group roles and points of guidance for ITU-T Study Group 16 to be proposed for WTSA-20 for the 2021-2024 study period, including adjustments agreed by the Chairmen of SG16 and SG20 for this TSAG meeting. The revision marks indicate only the adjustments. (For the full set of changes, please refer to [TSAG-TD884-R1](https://www.itu.int/md/T17-TSAG-200921-TD-GEN-0884/en).)

###### Title

Multimedia and related digital technologies

###### Mandate

ITU‑T Study Group 16 is responsible for studies relating to ubiquitous multimedia applications, multimedia capabilities, multimedia services and multimedia applications for existing and future networks.

This encompasses information and communication technologies for multimedia systems, applications, terminals and delivery platforms; accessibility for digital inclusion; ICTs for active assisted living; human interfaces; multimedia aspects of distributed ledger technologies; media and signal coding and systems; and digital multimedia services in various verticals (health, culture, mobility, etc.).

NOTE – When ITU-T SG16 was created in 1996, one of its mandates was to continue ITU-T SG1's studies on multimedia services. Accordingly, reference to "services" in the context of SG16 mandate is to be understood as "multimedia services".

###### Points of guidance

ITU‑T Study Group 16 will work on the following items:

* terminology for various multimedia services;
* operation of multimedia systems and applications, including interoperability, scalability and interworking over different networks;
* ubiquitous multimedia services and applications;
* multimedia aspects of digital services;
* multimedia systems and services accessibility for digital inclusion;
* development of multimedia end-to-end architectures, including vehicle gateway for intelligent transport system (ITS);
* high-layer protocols and middleware for multimedia systems and applications, including IP-based television services (managed and non-managed networks), Internet-based streaming media services and digital signage;
* media and signal coding;
* multimedia and multimode terminals;
* human-machine interaction;
* signal processing network equipment and terminals, gateway implementations, and characteristics;
* quality of service (QoS), quality of experience (QoE) and end-to-end performance in multimedia systems;
* security of multimedia systems and services;
* multimedia aspects of distributed ledger technologies and its applications
* digital multimedia services and applications in various vertical industries;
* AI-enabled multimedia applications

In developing its studies, SG16 will take into consideration societal and ethical aspects of intelligent applications.

ITU-T SG16 will work collaboratively with all stakeholders working in the standardization areas under ITU-T SG16, in particular with ITU-T SG2, SG9, SG12 and SG20 and other ITU SGs, other UN agencies, ISO, IEC, industry forums and consortia, and regional and international standards-development organizations (SDO).

###### Lead study group roles

* Lead study group on multimedia technologies, applications, systems and services
* Lead study group on IP-based television services and digital signage
* Lead study group on human factors and ICT accessibility for digital inclusion
* Lead study group on multimedia aspects of automotive related intelligent services
* Lead study group on multimedia aspects of digital health
* Lead study group on digital culture
* Lead study group on multimedia aspects of DLT technologies and its applications

##### Adjustments to title or text of SG16 Questions proposed for the next study period

Table B.1 maps the 14 Questions that ITU-T SG16 is proposing to WTSA-20 for the study period 2021-2024 (denoted "T21") to the various Questions in force at the end of the 2017-2020 study period (denoted "T17"). The table includes (in revision marks) the adjusted title for QI/16 (continuation of Q22/16). After the table, the additional adjustments agreed by the SG16 and SG20 are provided in delta format:

* WTSA QF/16 (Cont. of Q12/16) "*Intelligent visual systems and services*"
* WTSA QM/16 (Cont. of Q27/16) "*Vehicular multimedia communications, systems, networks, and applications*"
* WTSA QN/16 (Cont. of Q28/16) "*Multimedia framework for digital health applications*"

For the full set of the SG16 Questions proposed to WTSA-20, please refer to TSAG-TD884-R1.

Table B.1 – Map of SG16 Questions across the 2017-2020 and 2021-2024 study periods

| T21 Question number | WTSA Question number | T21 Question title | Status | T17 Question number | T17 Question title |
| --- | --- | --- | --- | --- | --- |
| **…** | | | | | |
| 12/16 | F/16 | Intelligent visual systems and services\* | Continued | 12/16 | Visual surveillance systems and services |
| **…** | | | | | |
| 22/16 | I/16 | Multimedia aspects of distributed ledger technologies and e-services | Continued | 22/16 | Distributed ledger technologies and e-services |
| **…** | | | | | |
| 27/16 | M/16 | Vehicular multimedia communications, systems, networks, and applications\* | Continued | 27/16 | Vehicle gateway platform for telecommunication/ITS services and applications |
| 28/16 | N/16 | Multimedia framework for digital health applications\* | Continued | 28/16 | Multimedia framework for e-health applications |

\* NOTE – Same title. See Question changes below.

**…**

F Question 12/16 – Intelligent visual systems and services

(Continuation of Question 12/16)

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F.4 Relationships

Recommendations

– E, F, G, H, I, Q, T, V, X, Y-series Recommendations under the responsibility of SG16

Questions

– Questions 5/16, 6/16, 11/16, 13/16, 21/16, 24/16

Study Groups

– ITU-T SG13 on cloud computing in intelligent visual system

– ITU-T SG12 and ITU-R SG6 on video quality assessment

– ITU-T SG17 on security of intelligent visual systems (Q[6]/17)

– ITU-T SG20 on interface with IoT systems and smart cities

Other bodies

– IEC TC79 on video surveillance system integration

– ISO/IEC JTC1 SC29 on content description

– ONVIF on device interoperability

– 3GPP on 5G intelligent visual application

– ETSI on intelligent analysis application

**…**

M Question 27/16 – Vehicular multimedia communications, systems, networks, and applications

(Continuation of Question 27/16)

M.1 Motivation

…

The Question will consult ITU-T SG17 when discussing security aspects of vehicular multimedia systems and ITU-T SG20 when discussing smart city aspects of vehicular multimedia systems.

**….**

N Question 28/16 – Multimedia framework for digital health applications

(Continuation of Question 28/16)

N.1 Motivation

…

Considering the fact that many organizations are already active in this field (with which ITU has existing cooperation agreements) and that, in addition to technical issues, there are a number of other aspects to be considered (e.g. legal, ethical, cultural, economic, regional), it is considered that the various ITU-T study groups can provide the right environment to harmonize and coordinate the development of a set of open global standards for digital health applications.

In the framework of this Question, Study Group 16, consistent with its lead study roles, will coordinate the technical standardization of multimedia systems and capabilities for digital health applications in ITU-T, and will develop corresponding Recommendations and other deliverables.

NOTE 2 – Improvements and additions to the specific characteristics of multimedia systems and terminals under the responsibility of other Study Group 16 Questions will be addressed within those Questions. The Question will consult ITU-T SG20 when discussing IoT and smart city aspects of digital health.

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##### Adjusted SG20 mandate, lead roles and points of guidance (WTSA Res.2)

This annex contains the mandate, lead Study Group roles and points of guidance for ITU-T Study Group 20 to be proposed for WTSA-20 for the 2021-2024 study period, including adjustments agreed by the Chairmen of SG16 and SG20 for this TSAG meeting. The revision marks indicate only the adjustments. (For the full set of changes, please refer to [TSAG-TD883-R1](https://www.itu.int/md/T17-TSAG-200921-TD-GEN-0883/en).)

#### PART 1 ‑ General areas of study

**ITU-T Study Group 20**

**Internet of things (IoT) and smart cities and communities**

Study Group 20 is responsible for studies relating to Internet of things (IoT) and its applications, and smart cities and communities (SC&C). This includes studies relating to big data aspects of IoT and SC&C, digital services for SC&C and digital transformation relevant IoT and SC&C aspects.

**Lead ITU-T study groups in specific areas of study**

SG20 Lead study group on Internet of things (IoT) and its applications

Lead study group on smart cities and communities and related digital services

Lead study group for Internet of things identification

Lead study group on digital health related to IoT and smart cities and communities

Points of guidance

ITU-T Study Group 20 will work on the following items:

* framework and roadmaps for the harmonized and coordinated development of Internet of things (IoT), including machine-to-machine (M2M) communications, ubiquitous sensor networks and smart sustainable cities, in ITU-T and in close cooperation with the ITU Radiocommunication Sector (ITU-R) and ITU Telecommunication Development (ITU-D) study groups and other regional and international standards organizations and industry forums;
* requirements and capabilities for IoT and smart cities and communities (SC&C) including verticals;
* definitions and terminology for IoT and SC&C;
* Solutions provided by emerging digital technologies and their technical impact on IoT and SC&C;
* IoT and SC&C network infrastructure, connectivity and devices, and digital services and applications, including architectures, architecture frameworks for IoT and SC&C;
* Evaluation, assessment as well as service analysis and infrastructure for SC&C regarding the use of emerging digital technologies on the smartness of cities;
* guidelines, methodologies and best practices related to standards to help cities, communities, rural areas and villages deliver services using emerging digital technologies;
* identification aspects of IoT and SC&C in collaboration with other study groups as appropriate;
* protocols and interfaces for IoT and SC&C systems, services and applications;
* Platforms for IoT and SC&C;
* interoperability and interworking of IoT and SC&C systems, services and applications;
* quality of service (QoS) and end-to-end performance for IoT and SC&C in collaboration with SG12, as appropriate;
* security, privacy4 and trustworthiness4 of IoT and SC&C systems, services and applications;
* database maintenance of IoT and SC&C standards;
* big data aspects, including big data ecosystems, of IoT and SC&C;
* digital services for SC&C;
* IoT and SC&C data processing and management, including data analytics, and AI-enabled applications;
* Technical aspects of data value chain for IoT and SC&C, in collaboration with SG3 as appropriate;
* data sets and semantics based capabilities for IoT and SC&C including verticals.

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