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| The International Teleocmmunication Union - Connecting the World. | **International telecommunication union****Telecommunication Standardization Bureau** |  |
|  | Geneva, 11 December 2023 |
| **Ref:** | **TSB Circular 162****SG20/CB** | **To:**- Administrations of Member States of the Union;**Copy to:**- ITU-T Sector Members;- Associates of ITU-T Study Group 20; - ITU Academia;- The Chair and Vice-Chairs of ITU-T Study Group 20;- The Director of the Telecommunication Development Bureau;- The Director of the Radiocommunication Bureau |
| **Tel:** | +41 22 730 6301 |
| **Fax:****E-mail:** | +41 22 730 5853tsbsg20@itu.int |
| **Subject:** | **Member State consultation on Determined draft new Recommendations ITU-T** **Y.4607 (ex Y.DRI-reqts), Y.4225 (ex Y.dt-ITS), Y.4221 (ex Y.ElecMon-Reqts), Y.4496 (ex Y.RA-PHE), Y.4497 (ex Y.Smart-SBS), Y.4498 (ex Y.energy-data), Y.4499 (ex Y.UIM-cs-framework) and Y.4488 (ex Y.IoT-SPWE) proposed for approval at the meeting of ITU-T Study Group 20 (Geneva, 1-12 July 2024)** |

Dear Sir/Madam,

1 ITU-T Study Group 20 (SG20: Internet of things (IoT) and smart cities and communities (SC&C)) intends to apply the Traditional Approval Procedure as described in Section 9 of WTSA Resolution 1 (Rev. Geneva, 2022) for the approval of the above-mentioned draft Recommendations at its next meeting in Geneva, Switzerland, from 1 to 12 July 2024. The agenda and all relevant information concerning the ITU‑T Study Group 20 meeting will be available in [Collective letter 4/20](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T22-SG20-COL-0004).

2 The titles, summaries and locations of the draft new Recommendations ITU-T Y.4607 (ex Y.DRI‑reqts), Y.4225 (ex Y.dt-ITS), Y.4221 (ex Y.ElecMon-Reqts), Y.4496 (ex Y.RA-PHE), Y.4497 (ex Y.Smart‑SBS), Y.4498 (ex Y.energy-data), Y.4499 (ex Y.UIM-cs-framework) and Y.4488 (ex Y.IoT-SPWE), proposed for approval can be found in Annex 1.

3 This Circular initiates the formal consultation with ITU Member States on whether these texts may be considered for approval at the upcoming meeting, in accordance with clause 9.4 of Resolution 1. Member States are kindly requested to complete and return the form in Annex 2 by 2359 hours UTC on **19 June 2024**.

4 If 70% or more of the replies from Member States support consideration for approval, one Plenary session will be devoted to apply the approval procedure. Member States that do not assign authority to proceed should inform the Director of TSB of the reasons for this opinion and indicate the possible changes that would enable the work to progress.

TSB NOTE 1– As of the date of this Circular, no IPR statements had been received by TSB regarding any of these draft texts. For up-to-date information, members are invited to consult the IPR database at [www.itu.int/ipr/](http://www.itu.int/ipr/).

Yours faithfully

Seizo Onoe
Director of the Telecommunication
Standardization Bureau

**Annexes:** 2

**Annex 1**

**Summary and location of Determined draft new Recommendations ITU-T Y.4607 (ex Y.DRI-reqts), Y.4225 (ex Y.dt-ITS), Y.4221 (ex Y.ElecMon-Reqts), Y.4496 (ex Y.RA-PHE), Y.4497 (ex Y.Smart-SBS), Y.4498 (ex Y.energy-data), Y.4499 (ex Y.UIM-cs-framework) and Y.4488 (ex Y.IoT-SPWE)**

**1 Draft new Recommendation ITU-T Y.4607 (ex Y.DRI-reqts): [**[**R12**](https://www.itu.int/md/T22-SG20-R-0012/en)**]**

**Requirements for the interworking of autonomous urban delivery robots**

**Summary**

This Recommendation specifies the requirements for autonomous delivery robots that interwork with delivery robot service providers, user devices and urban infrastructure to facilitate the delivery of goods without human intervention.

**2 Draft new Recommendation ITU-T Y.4225 (ex Y.dt-ITS): [**[**R13**](https://www.itu.int/md/T22-SG20-R-0013/en)**]**

**Requirements and capability framework of digital twin for intelligent transport system**

**Summary**

This Recommendation specifies the requirements and capability framework of digital twin for intelligent transport system.

Digital twin (DT) for intelligent transport system (ITS) can provide a digital representation of the physical transportation world. With meaningful and full-scale understanding of historical, real-time and statistical traffic related data in digital twin for intelligent transport system (DT-ITS), the awareness of physical transportation is significantly enhanced, problems of transportation system can be discovered in advance, various traffic situations can be simulated, different long term, medium, short term strategies can be properly decided, and a lot of applications supported by intelligent transport systems can be better provided and be more intelligent.

**3 Draft new Recommendation ITU-T Y.4221 (ex Y.ElecMon-Reqts): [**[**R14**](https://www.itu.int/md/T22-SG20-R-0014/en)**]**

**Requirements of IoT-based electric power infrastructure monitoring system**

**Summary**

An Internet of things (IoT)-based electric power infrastructure monitoring system is an effective means to obtain the operational health status of electric power infrastructures. It provides advanced and efficient auxiliary monitoring and diagnosis methods for maintaining the safe and stable operation of an electric power system.

This Recommendation specifies the requirements for an IoT-based electric power infrastructure monitoring system for the purposes of maintaining electric power infrastructure.

**4 Draft new Recommendation ITU-T Y.4496 (ex Y.RA-PHE): [**[**R15**](https://www.itu.int/md/T22-SG20-R-0015/en)**]**

**Requirements and reference architecture for a smart service for public health emergency system**

**Summary**

Recommendation ITU-T Y.4496 is intended to provide the requirements and architecture for a smart service for public health emergency system that can be implemented to address current and future potential public health risks.

**5 Draft new Recommendation ITU-T Y.4497 (ex Y.Smart-SBS): [**[**R16**](https://www.itu.int/md/T22-SG20-R-0016/en)**]**

**Requirements and functional architecture of smart sharing bicycle service**

**Summary**

Recommendation ITU-T Y.4497 describes the requirements and functional architecture of the smart sharing bicycle (SSB) service intended to meet people's daily travel needs, provide a positive user experience, and create significant market opportunities. This Recommendation includes the service requirements and the functional architecture of the smart sharing bicycle service.

**6 Draft new Recommendation ITU-T Y.4498 (ex Y.energy-data): [**[**R17**](https://www.itu.int/md/T22-SG20-R-0017/en)**]**

**Framework for city-level energy data sharing and analytics among buildings**

**Summary**

Recommendation ITU-T Y.4498 specifies requirements and architectural models for city-level energy management that facilitates data exchange, sharing and analytics among buildings in smart cities. Recommendation ITU-T Y.4498 also provides use cases to support energy planning, management and energy data sharing through city energy services for smart sustainable cities.

As the sector accounts for a significant portion of total energy consumption, efforts are being made to increase energy efficiency in the built environment through smart solutions in homes, office and commercial premises, and factories. To effectively support energy efficiency in smart cities, it is crucial to have city-level data sharing and analytics for services and intelligent applications. This allows information to be shared among buildings with different consumption patterns or renewable production to increase energy efficiency. To enable city-level data sharing and analytics, standardized specifications for energy data types and exchange methods are essential.

**7 Draft new Recommendation ITU-T Y.4499 (ex Y.UIM-cs-framework): [**[**R18**](https://www.itu.int/md/T22-SG20-R-0018/en)**]**

**Framework for urban infrastructure monitoring based on crowdsourcing**

**Summary**

Recommendation ITU-T Y.4499 specifies a framework for urban infrastructure monitoring based on crowdsourcing, including requirements, functional architecture, common procedures, as well as security and privacy considerations.

Urban infrastructure includes the fundamental facilities and systems that a city must have for its operation and development. It has the characteristics of large quantity, wide distribution and high management difficulty. Crowdsourcing is the practice of engaging a group of people for a common goal. It can provide a scalable and financially viable way to monitor urban infrastructure.

**8 Draft new Recommendation ITU-T Y.4488 (ex Y.IoT-SPWE): [**[**R19**](https://www.itu.int/md/T22-SG20-R-0019/en)**]**

**Requirements and functional architecture of data services provided via IoT-based technologies for the safety of working environments**

**Summary**

This Recommendation specifies the requirements and functional architecture of data services provided via IOT-based technologies to ensure the safety of three typical working environments, namely working environments with high temperature, high dust concentrations or harmful gases.

By deploying data services provided via IoT-based technologies, workplaces with these kinds of working environments can make use of IoT technologies to collect information remotely, identify risky behaviour, control items of equipment remotely, and so on. These technologies could support intelligent services such as safety protection information monitoring including of workers and the environment and predictive maintenance, which can help to reduce incidents and casualties and improve the safety level of working environments.

**Annex 2**

**Subject: Member State response to TSB Circular 162:
Consultation on Determined draft new Recommendations ITU-T Y.4607 (ex Y.DRI-reqts), Y.4225 (ex Y.dt-ITS), Y.4221 (ex Y.ElecMon-Reqts), Y.4496 (ex Y.RA-PHE), Y.4497 (ex Y.Smart-SBS), Y.4498 (ex Y.energy-data), Y.4499 (ex Y.UIM-cs-framework) and Y.4488 (ex Y.IoT-SPWE)**

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| **To**: | Director of the Telecommunication Standardization Bureau,International Telecommunication UnionPlace des NationsCH 1211 Geneva 20, Switzerland | **From**: | [Name][Official role/title][Address] |
| **Fax**:**E-mail**: | +41-22-730-5853tsbdir@itu.int  | **Fax**:**E-mail**: |  |
|  |  | **Date**: | [Place,] [Date] |

Dear Sir/Madam,

With respect to the Member State consultation on the Determined draft texts listed in TSB Circular 162, I would like to advise you of the opinion of this Administration, which is set out in the table below.

|  | **Select one of the two boxes** |
| --- | --- |
| **Draft new Recommendation ITU-T Y.4607 (ex Y.DRI-reqts)** | [ ]  **assigns authority** to Study Group 20 to consider this text for approval (in which case, select one of the two options ⃝):⃝ No comments or suggested changes⃝ Comments and suggested changes are attached |
| [ ]  **does not assign authority** to Study Group 20 to consider this text for approval (reasons for this opinion and an outline of possible changes that would enable the work to progress are attached) |
| **Draft new Recommendation ITU-T Y.4225 (ex Y.dt-ITS)** | [ ]  **assigns authority** to Study Group 20 to consider this text for approval (in which case, select one of the two options ⃝):⃝ No comments or suggested changes⃝ Comments and suggested changes are attached |
| [ ]  **does not assign authority** to Study Group 20 to consider this text for approval (reasons for this opinion and an outline of possible changes that would enable the work to progress are attached) |
| **Draft new Recommendation ITU-T Y.4221 (ex Y.ElecMon-Reqts)** | [ ]  **assigns authority** to Study Group 20 to consider this text for approval (in which case, select one of the two options ⃝):⃝ No comments or suggested changes⃝ Comments and suggested changes are attached |
| [ ]  **does not assign authority** to Study Group 20 to consider this text for approval (reasons for this opinion and an outline of possible changes that would enable the work to progress are attached) |
| **Draft new Recommendation ITU-T Y.4496 (ex Y.RA-PHE)** | [ ]  **assigns authority** to Study Group 20 to consider this text for approval (in which case, select one of the two options ⃝):⃝ No comments or suggested changes⃝ Comments and suggested changes are attached |
| [ ]  **does not assign authority** to Study Group 20 to consider this text for approval (reasons for this opinion and an outline of possible changes that would enable the work to progress are attached) |
| **Draft new Recommendation ITU-T Y.4497 (ex Y.Smart-SBS)** | [ ]  **assigns authority** to Study Group 20 to consider this text for approval (in which case, select one of the two options ⃝):⃝ No comments or suggested changes⃝ Comments and suggested changes are attached |
| [ ]  **does not assign authority** to Study Group 20 to consider this text for approval (reasons for this opinion and an outline of possible changes that would enable the work to progress are attached) |
| **Draft new Recommendation ITU-T Y.4498 (ex Y.energy-data)** | [ ]  **assigns authority** to Study Group 20 to consider this text for approval (in which case, select one of the two options ⃝):⃝ No comments or suggested changes⃝ Comments and suggested changes are attached |
| [ ]  **does not assign authority** to Study Group 20 to consider this text for approval (reasons for this opinion and an outline of possible changes that would enable the work to progress are attached) |
| **Draft new Recommendation ITU-T Y.4499 (ex Y.UIM-cs-framework)** | [ ]  **assigns authority** to Study Group 20 to consider this text for approval (in which case, select one of the two options ⃝):⃝ No comments or suggested changes⃝ Comments and suggested changes are attached |
| [ ]  **does not assign authority** to Study Group 20 to consider this text for approval (reasons for this opinion and an outline of possible changes that would enable the work to progress are attached) |
| **Draft new Recommendation ITU-T Y.4488 (ex Y.IoT-SPWE)** | [ ]  **assigns authority** to Study Group 20 to consider this text for approval (in which case, select one of the two options ⃝):⃝ No comments or suggested changes⃝ Comments and suggested changes are attached |
| [ ]  **does not assign authority** to Study Group 20 to consider this text for approval (reasons for this opinion and an outline of possible changes that would enable the work to progress are attached) |

Yours faithfully,

[Name]

[Official role/title]

Administration of [Member State]

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