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Title: A.1 justification for proposed draft new proposed draft Recommendation ITU-T Y.Satellite-ERS "Requirements and framework of satellite IoT based emergency response system", Q5/20 meeting (Geneva, 12-21 May 2026)

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Abstract: This document contains the A.1 Justification for the draft Recommendation of "Requirements and framework of satellite IoT-based emergency response system" (Geneva, 12-21 May 2026).

ANNEX A

A.1 justification for proposed draft new ITU-T Y.Satellite-ERS "Requirements and framework of satellite IoT-based emergency response system"

Question:	Q5/20	**Proposed new ITU-T Recommendation**	Geneva, Switzerland, 12-21 May 2026	
Reference and title:	ITU-T Y.Satellite-ERS "Requirements and framework of satellite IoT-based emergency response system"			
Base text:	TD1517-R1		**Timing:**	2028-Q4
Editor(s):	Ziqin Sang,zqsang@cict.com Hao Wu, wuhao@ycig.com Xingyu Shang, shangxy1@chinatelecom.cn		**Approval process:**	AAP

Scope (defines the intent or object of the Recommendation and the aspects covered, thereby indicating the limits of its applicability):

This draft Recommendation specifies requirements for satellite IoT gateways and sensing layer of emergency response systems based on satellite Internet of Things . It covers the following aspects:

– Overview of satellite IoT-based emergency response system,
– Functional requirements for satellite IoT gateways supporting for emergency response services,
– Functional requirements for sensing devices for emergency response, and
– Local connection interface specifications between satellite IoT gateways and sensing devices for emergency response.

NOTE: Radio communications are not within the scope of this Recommendation.

Summary (provides a brief overview of the purpose and contents of the Recommendation, thus permitting readers to judge its usefulness for their work):

Satellite IoT-based emergency response systems leverage the wide-area coverage of satellite constellations to enable reliable data transmission in scenarios where terrestrial communication infrastructures are damaged or unavailable, such as during natural disasters or public emergencies.

This document focuses on the satellite IoT gateway and sensing layer of such systems. It defines functional requirements for satellite IoT gateway , including automatic acquisition, bidirectional data transfer, and adaptation to intermittent satellite connectivity. It also specifies requirements for sensing devices regarding data acquisition, local communication, low-power operation, and data formats. Furthermore, it provides specifications for the local connection interface between satellite IoT gateway and sensing devices, ensuring interoperability and efficient data flow. By standardizing these satellite IoT gateway components and their interactions, this document provides guidance to facilitate the development and deployment of satellite IoT-based emergency response systems, thereby contributing to more resilient and effective disaster management capabilities for smart cities and communities.

Relations to ITU-T Recommendations or to other standards (approved or under development)**:**

ITU-T Y.Satellite-reqts, ITU-T Y.3200, ITU-T Y.4226, ITU-T Y.4705, ITU-T Y.SERS-fra ,ISO 22320, ISO29282,ISO/AWI 26335

Liaisons with other study groups or with other standards bodies:

ITU-T SG13, ITU-R WP 4B, ITU-R WP 1B, ITU-R WP 7C, 3GPP, ISO TC20

Supporting members that are committing to contributing actively to the work item:

CICT, China Telecom, State Grid Corporation of China, China University of Geosciences (Wuhan), Wuhan University