INTERNATIONAL TELECOMMUNICATION UNION

TELECOMMUNICATION STANDARDIZATION SECTOR

STUDY PERIOD 2025-2028

SG20-TD1414

STUDY GROUP 20

Original: English

Question(s): 2/20 Geneva, 12-21 May 2026

TD

Source: Q2/20 Rapporteur

Title: A.1 justification for proposed draft new Recommendation ITU-T Y.Ambient-IoT-Fra "Framework of ambient power-enabled Internet of Things system", Q2/20 meeting (Geneva, 12-21 May 2026)

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Abstract: This document contains A.1 justification for proposed draft new Recommendation ITU-T Y.Ambient-IoT-Fra "Framework of ambient power-enabled Internet of Things system", based on discussions on SG20-C582 at the Q2/20 meeting (Geneva, 12-21 May 2026).

A.1 justification for proposed draft new Recommendation ITU-T Y.Ambient-IoT-Fra "Framework of ambient power-enabled Internet of Things system"

Question:	2/20	**Proposed new ITU-T Recommendation**	Geneva, 12-21 May 2026		
Reference and title:	ITU-T Y.Ambient-IoT-Fra "Framework of ambient power-enabled Internet of Things system"				
Base text:	TD1415			**Timing:**	2028-Q3
Editor(s):	Qingqing Zhang, China Unicom, zhangqq102@chinaunicom.cn Tianyi Wang,China Unicom, wangty65@chinaunicom.cn Yuhui Han,China Unicom, hanyh91@chinaunicom.cn Shiyu Cui, China Mobile, cuishiyu@chinamobile.com Xingyu Shang, China Telecom, shangxy1@chinatelecom.cn			**Approval process:**	AAP

Scope:

This Recommendation specifies framework of ambient power-enabled Internet of Things system.

The scope of this Recommendation includes:

- an overview of ambient power-enabled Internet of Things system;

- framework of ambient power-enabled Internet of Things system.

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

The ambient power-enabled Internet of Things (Ambient-IoT) [ITU-T Y.Ambient-IoT] is a type of IoT enabling IoT services by harvesting ambient energy to power the IoT devices, instead of using finite-time batteries or cables. By relying on energy harvested from ambient sources, the Ambient-IoT makes it possible to develop lower-cost, smaller, and maintenance-free devices, allowing the IoT to become more scalable in existing use cases and in use cases still to be developed.

Building upon [ITU-T Y.Ambient-IoT] "Requirements and capabilities of ambient power-enabled Internet of Things", this Recommendation specifies the framework for the ambient power-enabled IoT system, and aims to identify ambient IoT-specific capabilities in each layer of the IoT reference model.

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

Y.4000, YSTR.Ambient-IoT, Y.Ambient-IoT

Liaisons with other study groups or with other standards bodies:

3GPP RAN, 3GPP SA, ISO/IEC JTC1/SC31, GS1 EPCglobal, IEEE 802.11

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

China Unicom, China Mobile, China Telecom, China Information Communication Technologies Group, Peng Cheng Laboratory, Beijing University of Posts and Telecommunications