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Title: A.1 justification of proposed draft new Recommendation ITU-T Y.Satellite-reqts "Requirements and capability framework of Satellite Internet of Things", Q5/20 meeting (Geneva, 12-21 May 2026)

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Abstract: This TD contains the A.1 justification of proposed new draft Recommendation ITU-T Y.Satellite-reqts "Requirements and capability framework of Satellite Internet of Things", based on discussions at the Q5/20 meeting, Geneva, 12-21 May 2026, including on Contribution C536.

A.1 Justification for proposed draft new ITU-T Y.Satellite-reqts "Requirements and capability framework of Satellite Internet of Things"

Question:	5/20	**Proposed new ITU-T Recommendation**	Geneva, 12-21 May 2026	
Reference and title:	ITU-T Y.Satellite-reqts "Requirements and capability framework of Satellite Internet of Things"			
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Editor(s):	Xingyu Shang, shangxy1@chinatelecom.cn Ziqin Sang, zqsang@cict.com Peijie Li, lipeijie99@outlook.com Hao Wu, wuhao@ycig.com Yankun Li, liyankun@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 the requirements and framework of satellite Internet of Things，which refers to using satellite communication technologies to extend the coverage of IoT. The scope of this Recommendation includes:

- Overview of Satellites Internet of Things

- Requirements of Satellite Internet of Things

- Capability framework of Satellite Internet of Things

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 Internet of Things refers to using satellite communication technologies to extend the coverage of IoT. To improve the coverage of IoT and support the massive connection demand of IoT devices, IoT gateways can use satellite communications. The Satellite IoT breaks through the geographical constraints of terrestrial IoT networks, realizing seamless coverage across ocean, desert, polar regions and other remote areas that are difficult for terrestrial infrastructure to reach.

From the technical operation perspective, Satellite IoT optimizes the end-to-end interaction efficiency of the IoT system by integrating satellite communication technologies with IoT. It supports the differentiated needs of massive low-power, low-rate terminal devices and high-speed, high-reliability professional terminals, forming a multi-level and multi-service IoT system.

This draft Recommendation defines the requirements of satellite usage to IoT, provides the framework of Satellite Internet of Things.

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

ITU-T Y.4000

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:

China Telecom, China Information Communication Technologies Group, State Grid Corporation of China, China University of Geosciences (Wuhan), Wuhan University

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