



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Q.4063

(09/2020)

SERIES Q: SWITCHING AND SIGNALLING, AND
ASSOCIATED MEASUREMENTS AND TESTS

Testing specifications – Testing specifications for IMT-
2020 and IoT

The framework of testing of identification systems used in IoT

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Recommendation ITU-T Q.4063

The framework of testing of identification systems used in IoT

Summary

The concept of the Internet of Things, defined in Recommendation ITU-T Y.4000/Y.2060, nowadays plays an important role for telecommunication and information technologies. According to a forecast, the number of Internet of Things in the foreseeable future will be hundreds of billions pieces, and further it will grow up to trillions. It is essential that most of customers of telecommunication networks will be IoT-based devices in the near future. In other words, all objects which are surround us might become IoT. The IoT, in accordance with the Recommendation ITU-T Y.4050/Y.2069, are things which have a network address and have the ability to integrate it. The penetration of IoT devices is going very fast and therefore, requires the standardization of identification procedures and relevant testing methods.

Also, bearing in mind that there are a lot of applications of Internet of Things, the testing of their identity might be considered as a very important issue as it allows customer to ensure the authenticity of the IoT.

The classification of IoT, in terms of testing of their identification systems and the relevant testing approaches are subjects of this Recommendation.

Keywords

IoT, testing, identification procedures

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The framework of testing of identification systems used in IoT

1 Scope

The Recommendation provides approaches of identification of devices used in Internet of Things (IoT). There are a lot of applications of IoT, the testing of their identity might be considered as it allows customer to ensure the authenticity of the IoT. The classification of IoT, in terms of testing of their identification procedures and the relevant testing procedures are also subjects of this Recommendation.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

[ITU-T Y4000/Y.2060] Recommendation ITU-T Y.4000/Y.2060, *Overview of Internet of Things*.

[ITU-T Y.4050/Y.2069] Recommendation ITU-T Y.2069, *Terms and definitions for the Internet of Things*.

3 Definitions

3.1 Terms defined elsewhere

This Recommendation uses the following terms defined elsewhere:

3.1.1. Internet of Things (IoT) [ITU-T Y.4000/Y.2060]: A global infrastructure for the information society, enabling advanced services by interconnecting (physical and virtual) things based on existing and evolving interoperable information and communication technologies.

3.2 Terms defined in this Recommendation

None

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

6LoWPAN	IPv6 over Low power Wireless Personal Area Networks
ADC	Analog-to-digital converter
ANT+	Adaptive Network Topology Plus
BLE	Bluetooth Low Energy
DOI	Digital Object Identifier
GeoIP	Geolocation by Internet protocol
GPIO	General-purpose input/output