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G.8011/Y.1307

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SERIES G: TRANSMISSION SYSTEMS AND MEDIA,
DIGITAL SYSTEMS AND NETWORKS

Packet over Transport aspects – Ethernet over Transport
aspects

SERIES Y: GLOBAL INFORMATION
INFRASTRUCTURE, INTERNET PROTOCOL ASPECTS,
NEXT-GENERATION NETWORKS, INTERNET OF
THINGS AND SMART CITIES

Internet protocol aspects – Transport

Ethernet service characteristics

Recommendation ITU-T G.8011/Y.1307

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Recommendation ITU-T G.8011/Y.1307

Ethernet service characteristics

Summary

Recommendation ITU-T G.8011/Y.1307 establishes a framework to describe network-oriented characteristics of Ethernet services based on the documents of a non-profit industry forum of network, cloud and technology providers, the MEF. The framework is supported by the modelling of Ethernet layer networks described by ITU-T and MEF. The service definition, service attributes and operation, administration and maintenance (OAM) introduced in this framework are used to create numerous specific Ethernet services.

History

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Ethernet, Ethernet services layer connection, Ethernet service, framework, network-to-network interface, user-to-network interface.

* To access the Recommendation, type the URL <http://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID. For example, <http://handle.itu.int/11.1002/1000/11830-en>.

FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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As of the date of approval of this Recommendation, ITU had received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at <http://www.itu.int/ITU-T/ipr/>.

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Recommendation ITU-T G.8011/Y.1307

Ethernet service characteristics

1 Scope

This Recommendation establishes a framework to describe Ethernet services based on the documents of a non-profit industry forum of network, cloud and technology providers, the MEF. The framework consists of a set of service definitions, service attributes and operation, administration and maintenance (OAM) for each Ethernet virtual connection (EVC), operator virtual connection (OVC), Ethernet services layer connection (EC), Ethernet user-to-network interface (UNI) and Ethernet external network-to-network interface (ENNI). The resulting services that can be described do not refer to a particular network technology implementation and are supported by ITU-T and MEF Ethernet layer architecture models.

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 G.8010] Recommendation ITU-T G.8010/Y.1306 (2004), *Architecture of Ethernet layer networks*.
- [ITU-T G.8013 (2015)] Recommendation ITU-T G.8013/Y.1731 (2015), *Operations, administration and maintenance (OAM) functions and mechanisms for Ethernet-based networks*.
- [IEEE 802.1AX] IEEE 802.1AX-2014, *IEEE Standard for Local and metropolitan area networks – Link aggregation*.
- [IEEE 802.1Q] IEEE 802.1Q-2014, *IEEE Standard for Local and metropolitan area networks – Bridges and bridged networks*.
- [IEEE 802.3] IEEE 802.3-2015, *IEEE Standard for Ethernet*.
- [MEF 6.3] MEF 6.3 (2019), *Subscriber Ethernet services definitions*.
- [MEF 10.4] MEF 10.4 (2018), *Subscriber Ethernet service attributes*.
- [MEF 12.2] MEF 12.2 (2014), *Carrier Ethernet network architecture framework part 2: Ethernet services layer*.
- [MEF 13] MEF 13 (2005), *User network interface (UNI) type 1 implementation agreement*.
- [MEF 20] MEF 20 (2008), *User network interface (UNI) type 2 implementation agreement*.
- [MEF 22.3] MEF 22.3 (2018), *Transport services for mobile networks*.
- [MEF 22.3.1] MEF 22.3.1 (2020), *Amendment to MEF 22.3: Transport services for mobile networks*.
- [MEF 23.2] MEF 23.2 (2016), *Carrier Ethernet class of service – Phase 3 implementation agreement*.