

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

G.8012/Y.1308

Amendment 1
(05/2006)

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

Ethernet over Transport aspects – General aspects

SERIES Y: GLOBAL INFORMATION
INFRASTRUCTURE, INTERNET PROTOCOL ASPECTS
AND NEXT-GENERATION NETWORKS

Internet protocol aspects – Transport

Ethernet UNI and Ethernet NNI

Amendment 1

ITU-T Recommendation G.8012/Y.1308 (2004) –
Amendment 1

ITU-T G-SERIES RECOMMENDATIONS
TRANSMISSION SYSTEMS AND MEDIA, DIGITAL SYSTEMS AND NETWORKS

INTERNATIONAL TELEPHONE CONNECTIONS AND CIRCUITS	G.100–G.199
GENERAL CHARACTERISTICS COMMON TO ALL ANALOGUE CARRIER-TRANSMISSION SYSTEMS	G.200–G.299
INDIVIDUAL CHARACTERISTICS OF INTERNATIONAL CARRIER TELEPHONE SYSTEMS ON METALLIC LINES	G.300–G.399
GENERAL CHARACTERISTICS OF INTERNATIONAL CARRIER TELEPHONE SYSTEMS ON RADIO-RELAY OR SATELLITE LINKS AND INTERCONNECTION WITH METALLIC LINES	G.400–G.449
COORDINATION OF RADIOTELEPHONY AND LINE TELEPHONY	G.450–G.499
TRANSMISSION MEDIA CHARACTERISTICS	G.600–G.699
DIGITAL TERMINAL EQUIPMENTS	G.700–G.799
DIGITAL NETWORKS	G.800–G.899
DIGITAL SECTIONS AND DIGITAL LINE SYSTEM	G.900–G.999
QUALITY OF SERVICE AND PERFORMANCE – GENERIC AND USER-RELATED ASPECTS	G.1000–G.1999
TRANSMISSION MEDIA CHARACTERISTICS	G.6000–G.6999
DATA OVER TRANSPORT – GENERIC ASPECTS	G.7000–G.7999
ETHERNET OVER TRANSPORT ASPECTS	G.8000–G.8999
General aspects	G.8000–G.8099
MPLS over Transport aspects	G.8100–G.8199
Quality and availability targets	G.8200–G.8299
ACCESS NETWORKS	G.9000–G.9999

For further details, please refer to the list of ITU-T Recommendations.

ITU-T Recommendation G.8012/Y.1308

Ethernet UNI and Ethernet NNI

Amendment 1

Summary

This amendment contains extensions to the first version (2004) of ITU-T Rec. G.8012/Y.1308, related to the addition of:

- Ethernet over MPLS.
- Ethernet over RPR.

This amendment incorporates the frame format of provider bridges and deletes specifications of length encapsulation of client data since that encapsulation is not used for Ethernet over Transport.

The two Ethernet over Transport NNIs and the provider bridge frame were already considered for the first version of this Recommendation, but the standards defining these frames (ITU-T Rec. Y.1415, IEEE 802.1ad and IEEE 802.17) were not approved at that moment.

Source

Amendment 1 to ITU-T Recommendation G.8012/Y.1308 (2004) was approved on 7 May 2006 by ITU-T Study Group 15 (2005-2008) under the ITU-T Recommendation A.8 procedure.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

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.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure e.g. interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

© ITU 2006

All rights reserved. No part of this publication may be reproduced, by any means whatsoever, without the prior written permission of ITU.

CONTENTS

Page

1)	Introduction	1
2)	Additions	1
2.1)	Clause 1	1
2.2)	Clause 4	1
2.3)	Clause 6.2.1	1
2.4)	Clause 6.2.1	3
2.5)	Clause 6.2.3	6
2.6)	Clause 6.2.3	6
2.7)	New clause 7.4.....	7
2.8)	New Appendix III.....	7
2.9)	New Appendix IV.....	10
2.10)	Bibliography	11
3)	Modifications.....	11
3.1)	Clause 4	11
3.2)	Clause 6.1	11
3.3)	Clause 6.1.1	12
3.4)	Clause 6.2.1	12
3.5)	Clause 7	13
3.6)	Clause 7.1	13
3.7)	Clause 7.3	13
3.8)	Appendix I.....	14
3.9)	Bibliography	14

Document Sharing Hub



Documents

Document Sharing Hub

ITU-T Rec. G.8012/Y.1308 (2004)/Amd.1 (05/2006)

iii

ITU-T Recommendation G.8012/Y.1308

Ethernet UNI and Ethernet NNI

Amendment 1

1) Introduction

This amendment contains extensions to the first version (2004) of ITU-T Rec. G.8012/Y.1308, related to the addition of:

- Ethernet over MPLS.
- Ethernet over RPR.

This amendment incorporates the frame format of provider bridges and deletes specifications of length encapsulation of client data.

2) Additions

2.1) Clause 1

Add the following references:

- ITU-T Recommendation G.8112/Y.1371 (2006), *Interfaces for the Transport MPLS (T-MPLS) hierarchy*.
- ITU-T Recommendation Y.1415 (2005), *Ethernet-MPLS network interworking – User plane interworking*.
- IEEE 802.1ad-2005, *IEEE standard for local and metropolitan area networks – Virtual Bridged Local Area Networks – Amendment 4: Provider Bridges*.
- IEEE 802.17-2004, *IEEE standard for Information technology – Telecommunications and information exchange between systems – Local and metropolitan area networks – Specific requirements – Part 17: Resilient packet ring (RPR) access method and physical layer specifications*.

2.2) Clause 4

Add the following abbreviation:

TPID Tag Protocol Identifier

2.3) Clause 6.2.1

Add a new subclause 6.2.1.6:

6.2.1.6 MPLS link frame

6.2.1.6.1 MPLS link frame without common interworking indicators and without MAC FCS

An ETH_CI traffic unit is mapped without any extension into the payload of the MPLS_CI traffic unit. See Figure 6-18a.