STUDY GROUP 15 TELECOMMUNICATION **TD 621r1 (PLEN/15)** STANDARDIZATION SECTOR

STUDY PERIOD 2013-2016

English only

Original: English

3/15 Question(s):

Geneva, 19 - 30 September 2016

TD

Editor G.8101 Source:

Title: Draft revised Recommendation ITU-T G.8101/Y.1355 (for consent, 30 September

2016)

Abstract

This document provides a draft revised Recommendation ITU-T G.8101/Y.1354 (for consent).

The base document is ITU-T Recommendation G.8101/Y.1355 (01/2015) and the updates in this document are:

- Provided keywords
- Updated some definitions as defined in G.8112 (2015). See clause 3.2
- Captured some definitions and abbreviations as defined in draft G.8152 (for consent, Sep 2016). They are shown with yellow mark (and grey) and may be removed if it is not consented
- Captured some abbreviations as defined in draft G.8131 Amd2 (for consent, Sep 2016). They are shown with yellowgreen mark
- Fixed some abbreviation as shown with cyan mark. See notes for each part.
- Update the published year of some references.

Drafting in Geneva

- Update the heading in clause 3 (i.e. Remove 3.1.x or 3.2.y)
- Agreed the update as marked green, cyan.
- Due to the new Recommendation G.808 for consent. G.870 is replaced by G.808 in clause 2 and
- Removed MPLS-TP NNI and UNI in clause 3.2. This is because C.1926 and C.1927 raise the issue of re-consideration for interfaces in PTN, so that Q3 should wait till the terminologies for them become stable. Note that the definitions of MPLS-TP NNI and UNI are still listed in G.8112.
- Also per C.1927, IaDI and IrDI are defined in clause 3.2

Yuji Tochio +81-44-754-8829 **Contact:** Tel:

> **Fujitsu** tochio@jp.fujitsu.com Email:

Japan

Attention: This is not a publication made available to the public, but an internal ITU-T Document intended only for use by the Member States of ITU, by ITU-T Sector Members and Associates, and their respective staff and collaborators in their ITU related work. It shall not be made available to, and used by, any other persons or entities without the prior written consent of ITU-T

ITU-T

G.8101/Y.1355

TELECOMMUNICATION STANDARDIZATION SECTOR OF ITU (xx/2016)

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

Packet over Transport aspects – MPLS over Transport aspects

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

Internet protocol aspects – Transport

Terms and definitions for MPLS transport profile

Recommendation ITU-T G.8101/Y.1355



ITU-T G-SERIES RECOMMENDATIONS

${\bf TRANSMISSION~SYSTEMS~AND~MEDIA, DIGITAL~SYSTEMS~AND~NETWORKS}$

INTERNATIONAL TELEPHONE CONNECTIONS AND CIRCUITS	G.100–G.199
GENERAL CHARACTERISTICS COMMON TO ALL ANALOGUE CARRIER-	G.200–G.299
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 AND OPTICAL SYSTEMS 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
MULTIMEDIA 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
PACKET OVER TRANSPORT ASPECTS	G.8000-G.8999
Ethernet over Transport aspects	G.8000-G.8099
MPLS over Transport aspects	G.8100-G.8199
Synchronization, quality and availability targets	G.8200-G.8299
Service Management	G.8600-G.8699
ACCESS NETWORKS	G.9000-G.9999

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

Recommendation ITU-T G.8101/Y.1355

Terms and definitions for MPLS transport profile

Summary

Recommendation ITU-T G.8101/Y.1355 is a compilation of terms and abbreviations used in MPLS transport profile Recommendations.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T G.8101/Y.1355	2006-12-14	15	11.1002/1000/9004
2.0	ITU-T G.8101/Y.1355	2010-07-29	15	11.1002/1000/10905
3.0	ITU-T G.8101/Y.1355	2012-10-29	15	11.1002/1000/11775
4.0	ITU-T G.8101/Y.1355	2013-09-13	15	11.1002/1000/12022
5.0	ITU-T G.8101/Y.1355	2015-01-13	15	11.1002/1000/12384

Keywords

Abbreviation, acronym, definition, MPLS-TP, terminology.

^{*} 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

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications, information and communication technologies (ICTs). 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, 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/.

© ITU 2015

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

Table of Contents

			Page
1	Scope		1
2	Referen	ces	1
3	Definiti	ons	2
	3.1	Terms defined elsewhere	2
	3.2	Terms defined in this Recommendation	10
4	Abbrevi	ations and acronyms	11
Apper	ndix I Li	st of source Recommendations	20
Apper	ndix II T	erms and definitions for MPLS transport profile defined by the IETF	21
	II.1	Definitions	21
	II.2	Abbreviations	23
Biblio	graphy		24

Recommendation ITU-T G.8101/Y.1355

Terms and definitions for MPLS transport profile

1 Scope

This Recommendation contains a complete listing of the definitions and abbreviations used in the Recommendations associated with multiprotocol label switching transport profile (MPLS-TP) listed in Appendix I.

This Recommendation provides a representation of the MPLS-TP technology using the methodologies that have been used for other transport technologies, [e.g., synchronous digital hierarchy (SDH), optical transport network (OTN) and Ethernet]¹.

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.704]	Recommendation ITU-T G.704 (1998), Synchronous frame structures used at 1544, 6312, 2048, 8448 and 44 736 kbit/s hierarchical levels.
[ITU-T G.705]	Recommendation ITU-T G.705 (2000), Characteristics of plesiochronous digital hierarchy (PDH) equipment functional blocks
[ITU-T G.780]	Recommendation ITU-T G.780/Y.1351 (2010), Terms and definitions for synchronous digital hierarchy (SDH) networks.
[ITU-T G.805]	Recommendation ITU-T G.805 (2000), Generic functional architecture of transport networks.
[ITU-T G.806]	Recommendation ITU-T G.806 (2012), Characteristics of transport equipment – Description methodology and generic functionality.
[ITU-T G.808]	Recommendation ITU-T G.808 (2016), Terms and definitions for network protection and restoration
[ITU-T G.832]	Recommendation ITU-T G.832 (1998), Transport of SDH elements on PDH networks – Frame and multiplexing structures.
[ITU-T G.870]	Recommendation ITU-T G.870/Y.1352 (2012), Terms and definitions for optical transport networks.
[ITU-T G.7710]	Recommendation ITU-T G.7710/Y.1701 (2012), Common equipment management function requirements.
[ITU-T G.7712]	Recommendation ITU-T G.7712/Y.1703 (2010), Architecture and specification of data communication network.

¹ This ITU-T Recommendation is intended to be aligned with the IETF MPLS RFCs normatively referenced by this Recommendation.

	[ITU-T G.8001]	Recommendation ITU-T G.8001/Y.1354 (20132016), Terms and definitions for Ethernet frames over transport.
	[ITU-T G.8112]	Recommendation ITU-T G.8112/Y.1371 (20122015), Interfaces for the MPLS Transport Profile layer network.
-	[ITU-T G.8131]	Recommendation ITU-T G.8131/Y.1382 (2014), <i>Linear protection switching for MPLS transport profile</i> .
	[ITU-T M.3010]	Recommendation ITU-T M.3010 (2000), <i>Principles for a telecommunications management network</i> .
	[ITU-T M.3013]	Recommendation ITU-T M.3013 (2000), Considerations for a telecommunications management network.
	[ITU-T M.3100]	Recommendation ITU-T M.3100 (2005), Generic network information model.
	[ITU-T X.700]	Recommendation ITU-T X.700 (1992), Management framework for Open Systems Interconnection (OSI) for CCITT Applications.
	[ITU-T X.701]	Recommendation ITU-T X.701 (1997), Information technology – Open Systems Interconnection – Systems management overview.
	[ITU-T X.731]	Recommendation ITU-T X.731 (1992) ISO/IEC 10164-2:1993, <i>Information technology — Open Systems Interconnection — Systems management: State management function</i> .
	[IETF RFC 3031]	IETF RFC 3031 (2001), Multiprotocol Label Switching Architecture.
	[IETF RFC 3032]	IETF RFC 3032 (2001), MPLS Label Stack Encoding.
	[IETF RFC 3270]	IETF RFC 3270 (2002), Multi-Protocol Label Switching (MPLS) Support of Differentiated Services.
	[IETF RFC 5462]	IETF RFC 5462 (2009), Multiprotocol Label Switching (MPLS) Label Stack Entry: "EXP" Field Renamed to "Traffic Class" Field.
	[IETF RFC 5586]	IETF RFC 5586 (2009), MPLS Generic Associated Channel.
	[IETF RFC 5921]	IETF RFC 5921 (2010), A Framework for MPLS in Transport Networks.

3 Definitions

3.1 Terms defined elsewhere

1+1 (protection) architecture: [ITU-T G.808]

NOTE – 1+1 protection architecture is referred to in [ITU-T G.8131].

1:n (protection) architecture: [ITU-T G.808]

NOTE – 1:n protection architecture is referred to in [ITU-T G.8131].

1-phase (APS protocol) : [ITU-T G.808]

NOTE – 1-phase is referred to in [ITU-T G.8131].

2-phase (APS protocol): [ITU-T G.808]

NOTE – 2-phase is referred to in [ITU-T G.8131].

3-phase (APS protocol): [ITU-T G.808]

NOTE – 3-phase is referred to in [ITU-T G.8131].

active transport entity: [ITU-T G.808]

NOTE – active transport entity is referred to in [ITU-T G.8131].

access point: [ITU-T G.805]

NOTE – Access point is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

adapted information: [ITU-T G.805]

NOTE – Adapted information is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

administrative domain: : [ITU-T G.805]

NOTE – Administrative domain is referred to in [b-ITU-T G.8110.1].

agent: [ITU-T X.701]

NOTE – Agent is referred to in [b-ITU-T G.8151].

administrative state: [ITU-T X.731]

NOTE – Administrative state is referred to in [b-ITU-T G.8110.1].

alarm reporting: [ITU-T M.3013]

NOTE – Alarm reporting is referred to in [b-ITU-T G.8151].

alarm reporting control (ARC): [ITU-T M.3013]

NOTE – Alarm reporting control (ARC) is referred to in [b-ITU-T G.8151].

APS protocol: [ITU-T G.808]

NOTE – APS protocol is referred to in [ITU-T G.8131].

architecture: [ITU-T G.808]

NOTE – architecture is referred to in [ITU-T G.8131].

associated channel header: [IETF RFC 5586]

NOTE – Associated channel header is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

atomic function (AF): [ITU-T G.806]

NOTE – Atomic function (AF) is referred to in [b-ITU-T G.8151].

bidirectional protection switching: [ITU-T G.780]

NOTE – Bidirectional protection switching is referred to in [ITU-T G.8131].

bridge: [ITU-T G.808]

NOTE – bridge is referred to in [ITU-T G.8131].

bottom of stack: [IETF RFC 3032]

NOTE – Bottom of stack is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

characteristic information : [ITU-T G.805]

NOTE - Characteristics information is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

client/server relationship : [ITU-T G.805]

NOTE – Client/server relationship is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

Connection: [ITU-T G.805]

NOTE – Connection is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

connection point: [ITU-T G.805]

NOTE – Connection point is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

connection supervision : [ITU-T G.805]

NOTE – Connection supervision is referred to in [b-ITU-T G.8110.1].

customer edge (CE): [IETF RFC 5921]

NOTE – CE is referred to in [ITU-T G.8112].

data communication network (DCN) : [ITU-T G.7712]

NOTE – Data communication network (DCN) is referred to in [b-ITU-T G.8151].

defect: [ITU-T G.806]

NOTE – Defect is referred to in [b-ITU-T G.8113.1], [b-ITU-T G.8113.2] and [ITU-T G.8131].

dual-ended: [ITU-T G.8001]

NOTE – Dual-ended is referred to in [b-ITU-T G.8152].

explicitly TC-encoded-PSC LSP: [IETF RFC 5462]

NOTE – Explicitly TC-encoded-PSC LSP is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

failure: [ITU-T G.806]

NOTE – Failure is referred to in [b-ITU-T G.8113.1], [b-ITU-T G.8113.2] and [ITU-T G.8131].

forced switch: [ITU-T G.808]

NOTE – forced switch is referred to in [ITU-T G.8131].

G-Ach label: [IETF RFC 5586]

NOTE – G-Ach Label is referred to in [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

G-Ach packet: [IETF RFC 5586]

NOTE – G-Ach packet is referred to in [b-ITU-T G.8110.1].

G-Ach packet payload: [IETF RFC 5586]

NOTE – G-Ach packet payload is referred to in [b-ITU-T G.8110.1].

generic associated channel: [IETF RFC 5586]

NOTE – Generic associated channel is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

hold-off time: [ITU-T G.808]

NOTE – hold-off time is referred to in [ITU-T G.8131].

label: [IETF RFC 3031]

NOTE – Label is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

label inferred PHB scheduling class LSP: [IETF RFC 3270]

NOTE – Label inferred PHB scheduling class LSP is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

label stack: [IETF RFC 3031]

NOTE – Label stack is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1], and [b-ITU-T G.8121.2].

label switched path: [IETF RFC 3031]

NOTE – Label switching path is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

label value: [IETF RFC 3032]

NOTE – Label value is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

layer network: [ITU-T G.805]

NOTE – Layer network is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

link: [ITU-T G.805]

NOTE – Link is referred to in [b-ITU-T G.8110.1].

link connection: [ITU-T G.805]

NOTE – Link connection is referred to in [b-ITU-T G.8110.1].

local craft terminal: [ITU-T G.7710]

NOTE – Local craft terminal is referred to in [b-ITU-T G.8151].

maintenance entity: [ITU-T G.8001]

NOTE – Maintenance entity is referred to in [b-ITU-T G.8110.1] and [b-ITU-T G.8152].

maintenance entity group: [ITU-T G.8001]

NOTE – Maintenance entity group is referred to in [b-ITU-T G.8110.1] and [b-ITU-T G.8152].

maintenance entity group intermediate point compound function: [ITU-T G.8001]

NOTE – Maintenance entity group intermediate point compound function is referred to in [b-ITU-T G.8110.1] and [b-ITU-T G.8152].

matrix: [ITU-T G.805]

NOTE – Matrix is referred to in [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

management application function (MAF): [ITU-T G.7710]

NOTE – Management application function (MAF) is referred to in [b-ITU-T G.8151].

managed entity: [ITU-T M.3013]

NOTE – Managed entity is referred to in [b-ITU-T G.8151].

managed object (MO): [ITU-T X.700]

NOTE – Managed object (MO) is referred to in [b-ITU-T G.8151].

managed object class (MOC) : [ITU-T X.700]

NOTE – Managed object class (MOC) is referred to in [b-ITU-T G.8151].

management interface: [ITU-T M.3013]

NOTE – Management interface is referred to in [b-ITU-T G.8151].

management point (MP): [ITU-T G.806]

NOTE – Management point (MP) is referred to in [b-ITU-T G.8151].

manager: [ITU-T X.700]

NOTE – Manager is referred to in [b-ITU-T G.8151].

manual switch: [ITU-T G.808]

NOTE – manual switch is referred to in [ITU-T G.8131].

message communication function (MCF): [ITU-T M.3013]

NOTE – Message communication function (MCF) is referred to in [b-ITU-T G.8151].

MPLS label stack: [IETF RFC 3031]

NOTE – MPLS label stack is referred to in [b-ITU-T G.8121], [b-ITU-T G.8121.1], [b-ITU-T G.8121.2] and [b-ITU-T G.8110.1].

MPLS transport profile (MPLS-TP) : [IETF RFC 5921]

NOTE – MPLS transport profile (MPLS-TP) is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8113.1] and [b-ITU-T G.8113.2].

MPLS-TP LSP: [IETF RFC 5921]

NOTE – MPLS-TP LSP is referred to in [b-ITU-T G.8110.1].

MPLS-TP PE: [IETF RFC 5921]

NOTE – MPLS-TP PE is referred to in [ITU-T G.8112].

MPLS-TP-NNI: [ITU-T G.8112]

network: [ITU-T G.805]

NOTE – Network is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

network connection: [ITU-T G.805]

NOTE – Network connection is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

network element (NE): [ITU-T M.3010]

NOTE – Network element (NE) is referred to in [b-ITU-T G.8151].

network element function (NEF): [ITU-T M.3010]

NOTE – Network element function (NEF) is referred to in [b-ITU-T G.8151].

network survivability: [ITU-T G.808]

NOTE – Network survivability state is referred to in [b-ITU-T G.8110.1].

network-to-network interface (NNI): [ITU-T G.8001]

NOTE – NNI is referred to in [ITU-T G.8112].

non-revertive (protection) operation: [ITU-T G.808]

NOTE – non-revertive (protection) operation is referred to in [ITU-T G.8131].

normal traffic signal: [ITU-T G.808]

NOTE – normal traffic signal is referred to in [ITU-T G.8131].

on-demand monitoring: [ITU-T G.8001]

NOTE – On-demand monitoring is referred to in [b-ITU-T G.8110.1] and [b-ITU-T G.8152].

one-way: [ITU-T G.8001]

NOTE – One-way is referred to in [b-ITU-T G.8152].

operations system (OS): [ITU-T M.3013]

NOTE – Operations system (OS) is referred to in [b-ITU-T G.8151].

operations system function (OSF): [ITU-T M.3013]

NOTE – Operations system function (OSF) is referred to in [b-ITU-T G.8151].

per-hop behaviour: [IETF RFC 3270]

NOTE – Per-hop behaviour is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

permanent bridge: [ITU-T G.808]

NOTE – permanent bridge is referred to in [ITU-T G.8131].

persistence interval: [ITU-T M.3013]

NOTE – Persistence interval is referred to in [b-ITU-T G.8151].

proactive monitoring: [ITU-T G.8001]

NOTE – Pro-active monitoring is referred to in [b-ITU-T G.8110.1] and [b-ITU-T G.8152].

protected domain: [ITU-T G.808]

NOTE – protected domain is referred to in [ITU-T G.8131].

protection: [ITU-T G.808]

NOTE – Protection is referred to in [b-ITU-T G.8110.1] and [b-ITU-T G.8131].

protection transport entity: [ITU-T G.808]

NOTE – protection transport entity is referred to in [b-ITU-T G.8131].

PSC protocol: [ITU-T G.8131]

pseudowire: [IETF RFC 5921]

NOTE – Pseudowire is referred to in [b-ITU-T G.8110.1].

Q-Interface: [ITU-T M.3010]

NOTE – Q-Interface is referred to in [b-ITU-T G.8151].

qualified problem: [ITU-T M.3013]

NOTE – Qualified problem is referred to in [b-ITU-T G.8151].

reference point: [ITU-T G.805]

NOTE – Reference point is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

reset threshold report: [ITU-T M.3013]

NOTE – Reset threshold report is referred to in [b-ITU-T G.8151].

restoration: [ITU-T G.808]

NOTE – Restoration is referred to in [b-ITU-T G.8110.1].

revertive (protection) operation: [ITU-T G.808]

NOTE – revertive (protection) operation is referred to in [ITU-T G.8131].

selector: [ITU-T G.808]

NOTE – selector is referred to in [ITU-T G.8131].

selector bridge: [ITU-T G.808]

NOTE – selector bridge is referred to in [ITU-T G.8131].

signal: [ITU-T G.808]

NOTE – signal is referred to in [ITU-T G.8131].

signal degrade (SD): [ITU-T G.806]

NOTE – signal degrade (SD) is referred to in [ITU-T G.8131].

signal fail (SF): [ITU-T G.806]

NOTE – signal fail (SF) is referred to in [ITU-T G.8131].

single-ended: [ITU-T G.8001]

NOTE – Single-ended is referred to in [b-ITU-T G.8152].

standby transport entity: [ITU-T G.808]

NOTE – standby transport entity is referred to in [ITU-T G.8131].

sublayer: [ITU-T G.805]

NOTE – Sublayer is referred to in [b-ITU-T G.8110.1].

subnetwork: [ITU-T G.805]

NOTE – Subnetwork is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

subnetwork connection: [ITU-T G.805]

NOTE – Subnetwork connection is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

subnetwork connection protection: [ITU-T G.808]

NOTE – subnetwork connection protection is referred to in [ITU-T G.8131].

switch: [ITU-T G.808]

NOTE – switch is referred to in [ITU-T G.8131].

tandem connection

NOTE – Tandem connection is referred to in [b-ITU-T G.8110.1].

termination connection point

NOTE – Termination connection point is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121.], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

threshold report: [ITU-T M.3013]

NOTE – Threshold report is referred to in [b-ITU-T G.8151].

time to live: [IETF RFC 3031]

NOTE – Time to live is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

timed interval: [ITU-T M.3013]

NOTE – Timed interval is referred to in [b-ITU-T G.8151].

trail: [ITU-T G.805]

NOTE - Trail is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1], [b-ITU-T G.8121.2] and [ITU-T G.8131].

trail termination: [ITU-T G.805]

NOTE – Trail termination is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

transport: [ITU-T G.805]

NOTE – Transport is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

traffic signal: [ITU-T G.808]

NOTE – traffic signal is referred to in [ITU-T G.8131].

trail protection: [ITU-T G.808]

NOTE – trail protection is referred to in [ITU-T G.8131].

transport entity: [ITU-T G.805]

NOTE – Transport entity is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

transport entities: [ITU-T G.808]

NOTE – transport entities is referred to in [ITU-T G.8131].

traffic class: [IETF RFC 5462]

NOTE – Traffic class is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

transport processing function: [ITU-T G.805]

NOTE – Transport processing function is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

two-way: [ITU-T G.8001]

NOTE – Two-way is referred to in [b-ITU-T G.8152].

unidirectional connection: [ITU-T G.805]

NOTE – Unidirectional connection is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

unidirectional protection switching: [ITU-T G.780]

NOTE – Unidirectional protection switching is referred to in [ITU-T G.8131].

unidirectional trail: [ITU-T G.805]

NOTE – Unidirectional trail is referred to in [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

user-to-network interface (UNI) : [ITU-T G.8112]

wait-to-restore time: [ITU-T G.808]

NOTE – wait-to-restore time is referred to in [ITU-T G.8131].

working transport entity: [ITU-T G.808]

NOTE – working transport entity is referred to in [ITU-T G.8131].

workstation function (WF): [ITU-T M.3010]

NOTE – Workstation function (WF) is referred to in [b-ITU-T G.8151].

The following terms are defined in [ITU-T G.780]:

3.1.1 bidirectional protection switching

NOTE Bidirectional protection switching is referred to in [ITU-T G.8131].

3.1.2 unidirectional protection switching

NOTE Unidirectional protection switching is referred to in [ITU-T G.8131].

The following terms are defined in [ITU-T G.805]:

3.1.3 access point

NOTE Access point is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.4 adapted information

NOTE Adapted information is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.5 administrative domain

NOTE Administrative domain is referred to in [b-ITU-T G.8110.1].

3.1.6 characteristic information

NOTE Characteristics information is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.7 client/server relationship

NOTE - Client/server relationship is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121.], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.8 connection

NOTE Connection is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.9 connection point

NOTE Connection point is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.10 connection supervision

NOTE Connection supervision is referred to in [b-ITU-T G.8110.1].

3.1.11 laver network

NOTE Layer network is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.12 link

NOTE Link is referred to in [b-ITU-T G.8110.1].

3.1.13 link connection

NOTE Link connection is referred to in [b-ITU-T G.8110.1].

3.1.14 matrix

NOTE Matrix is referred to in [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.15 **network**

NOTE Network is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.16 network connection

NOTE Network connection is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.17 reference point

NOTE — Reference point is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.18 sublayer

NOTE Sublayer is referred to in [b-ITU-T G.8110.1].

3.1.19 subnetwork

NOTE—Subnetwork is referred to in [b-ITU-T-G.8110.1], [b-ITU-T-G.8121], [b-ITU-T-G.8121.1] and [b-ITU-T-G.8121.2].

3.1.20 subnetwork connection

NOTE—Subnetwork connection is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.21 tandem connection

NOTE Tandem connection is referred to in [b-ITU-T G.8110.1].

3.1.22 termination connection point

NOTE Termination connection point is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121.], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.23 trail

NOTE Trail is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1], [b-ITU-T G.8121.2] and [ITU-T G.8131].

3.1.24 trail termination

NOTE Trail termination is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.25 transport

NOTE Transport is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.26 transport entity

NOTE Transport entity is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.27 transport processing function

NOTE Transport processing function is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121.], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.28 unidirectional connection

NOTE Unidirectional connection is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.29 unidirectional trail

NOTE Unidirectional trail is referred to in [b ITU-T G.8121], [b ITU-T G.8121.1] and [b ITU-T G.8121.2].

The following terms are defined in [ITU-T G.806]:

3.1.30 atomic function (AF)

NOTE Atomic function (AF) is referred to in [b-ITU-T G.8151].

3.1.31 defect

NOTE Defect is referred to in [b-ITU-T G.8113.1], [b-ITU-T G.8113.2] and [ITU-T G.8131].

3.1.32 failure

NOTE Failure is referred to in [b-ITU-T G.8113.1], [b-ITU-T G.8113.2] and [ITU-T G.8131].

3.1.33 management point (MP)

NOTE Management point (MP) is referred to in [b-ITU-T G.8151].

The following terms are defined in [ITU-T G.7710]:

3.1.34 local craft terminal

NOTE Local craft terminal is referred to in [b-ITU-T G.8151].

3.1.35 management application function (MAF)

NOTE Management application function (MAF) is referred to in [b-ITU-T G.8151].

The following term is defined in [ITU-T G.7712]:

3.1.36 data communication network (DCN)

NOTE Data communication network (DCN) is referred to in [b-ITU-T G.8151].

The following terms are defined in [ITU-T M.3010]:

3.1.37 network element (NE)

NOTE Network element (NE) is referred to in [b-ITU-T G.8151].

3.1.38 network element function (NEF)

NOTE Network element function (NEF) is referred to in [b-ITU-T G.8151].

3.1.39 signal degrade (SD)

NOTE signal degrade (SD) is referred to in [ITU-T G.8131].

3.1.40 signal fail (SF)

NOTE signal fail (SF) is referred to in [ITU-T G.8131].

3.1.41 O-Interface

NOTE Q-Interface is referred to in [b-ITU-T G.8151].

3.1.42 workstation function (WF)

NOTE Workstation function (WF) is referred to in [b-ITU-T G.8151].

The following term is defined in [ITU-T M.3013]:

3.1.43 message communication function (MCF)

NOTE Message communication function (MCF) is referred to in [b-ITU-T G.8151].

The following terms are defined in [ITU-T M.3100]:

3.1.44 alarm reporting

NOTE Alarm reporting is referred to in [b-ITU-T G.8151].

3.1.45 alarm reporting control (ARC)

NOTE Alarm reporting control (ARC) is referred to in [b-ITU-T G.8151].

3.1.46 managed entity

NOTE Managed entity is referred to in [b-ITU-T G.8151].

3.1.47 management interface

NOTE Management interface is referred to in [b-ITU-T G.8151].

3.1.48 operations system (OS)

NOTE - Operations system (OS) is referred to in [b-ITU-T G.8151].

3.1.49 operations system function (OSF)

NOTE Operations system function (OSF) is referred to in [b-ITU-T-G.8151].

3.1.50 persistence interval

NOTE Persistence interval is referred to in [b-ITU-T G.8151].

3.1.51 qualified problem

NOTE Qualified problem is referred to in [b-ITU-T G.8151].

3.1.52 reset threshold report

NOTE Reset threshold report is referred to in [b-ITU-T G.8151].

3.1.53 threshold report

NOTE Threshold report is referred to in [b-ITU-T G.8151].

3.1.54 timed interval

NOTE Timed interval is referred to in [b-ITU-T G.8151].

The following term is defined in [ITU-T X.700]:

3.1.55 managed object (MO)

NOTE Managed object (MO) is referred to in [b-ITU-T-G.8151].

The following terms are defined in [ITU-T X.701]:

3.1.56 agent

NOTE Agent is referred to in [b-ITU-T G.8151].

3.1.57 manager

NOTE Manager is referred to in [b-ITU-T G.8151].

3.1.58 managed object class (MOC)

NOTE Managed object class (MOC) is referred to in [b-ITU-T G.8151].

The following term is defined in [ITU-T X.731]:

3.1.59 administrative state

NOTE - Administrative state is referred to in [b-ITU-T G.8110.1].

The following terms are defined in [ITU-T G.870]: 3.1.60 1+1 (protection) architecture NOTE 1+1 protection architecture is referred to in [ITU-T G.8131]. 3.1.61 1:n (protection) architecture NOTE 1:n protection architecture is referred to in [ITU-T G.8131]. 3.1.62 1-phase (APS protocol) NOTE 1-phase is referred to in [ITU-T G.8131]. 3.1.63 2-phase (APS protocol) NOTE 2-phase is referred to in [ITU-T G.8131]. 3.1.64 3-phase (APS protocol) NOTE 3-phase is referred to in [ITU-T G.8131]. 3.1.65 active transport entity NOTE active transport entity is referred to in [ITU-T G.8131]. 3.1.66 APS protocol NOTE APS protocol is referred to in [ITU-T G.8131]. 3.1.67 architecture NOTE architecture is referred to in [ITU-T G.8131]. **3.1.68** bridge NOTE bridge is referred to in [ITU-T G.8131]. 3.1.69 forced switch NOTE forced switch is referred to in [ITU-T G.8131]. 3.1.70 hold-off time NOTE hold-off time is referred to in [ITU-T G.8131]. 3.1.71 manual switch NOTE manual switch is referred to in [ITU-T G.8131]. 3.1.72 network survivability NOTE Network survivability state is referred to in [b-ITU-T G.8110.1]. 3.1.73 non-revertive (protection) operation NOTE non-revertive (protection) operation is referred to in [ITU-T G.8131]. 3.1.74 normal traffic signal NOTE normal traffic signal is referred to in [ITU-T G.8131]. 3.1.75 permanent bridge NOTE permanent bridge is referred to in [ITU-T G.8131]. 3.1.76 protected domain NOTE protected domain is referred to in [ITU-T G.8131].

3.1.77 protection NOTE Protection is referred to in [b-ITU-T G.8110.1] and [ITU-T G.8131]. 3.1.78 protection transport entity NOTE protection transport entity is referred to in [ITU-T G.8131]. 3.1.79 restoration NOTE Restoration is referred to in [b-ITU-T G.8110.1]. 3.1.80 revertive (protection) operation NOTE revertive (protection) operation is referred to in [ITU-T G.8131]. 3.1.81 selector NOTE - selector is referred to in [ITU-T G.8131]. 3.1.82 selector bridge NOTE selector bridge is referred to in [ITU-T G.8131]. 3.1.83 **signal** NOTE signal is referred to in [ITU-T G.8131]. 3.1.84 standby transport entity NOTE standby transport entity is referred to in [ITU-T G.8131]. 3.1.85 subnetwork connection protection NOTE subnetwork connection protection is referred to in [ITU-T G.8131]. 3.1.86 switch NOTE switch is referred to in [ITU-T G.8131]. 3.1.87 traffic signal NOTE traffic signal is referred to in [ITU-T G.8131]. 3.1.88 trail protection NOTE - trail protection is referred to in [ITU-T G.8131]. 3.1.89 transport entities NOTE transport entities is referred to in [ITU-T G.8131]. 3.1.90 wait-to-restore time NOTE wait-to-restore time is referred to in [ITU-T G.8131]. 3.1.91 working transport entity NOTE working transport entity is referred to in [ITU-T G.8131]. The following terms are defined in [ITU-T G.8001]: 3.1.92 maintenance entity NOTE Maintenance entity is referred to in [b-ITU-T G.8110.1].

3.1.93 maintenance entity group

NOTE - Maintenance entity group is referred to in [b-ITU-T G.8110.1].

3.1.94 maintenance entity group intermediate point compound function

NOTE Maintenance entity group intermediate point compound function is referred to in [b-ITU-T G.8110.1].

3.1.95 on-demand monitoring

NOTE On-demand monitoring is referred to in [b-ITU-T G.8110.1].

3.1.96 proactive monitoring

NOTE Pro-active monitoring is referred to in [b-ITU-T G.8110.1].

3.1.97 network-to-network interface (NNI)

NOTE NNI is referred to in [ITU-T G.8112].

The following terms are defined in [ITU-T G.8112]:

3.1.98 **MPLS-TP-NNI**

3.1.99 user-to-network interface (UNI)

The following term is defined in [ITU-T G.8131]:

3.1.100 PSC protocol

The following terms are defined in [IETF RFC 3031]:

3.1.101 label

NOTE - Label is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.102 label stack

NOTE Label stack is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1], and [b-ITU-T G.8121.2].

3.1.103 label switched path

NOTE Label switching path is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.104 MPLS label stack

NOTE MPLS label stack is referred to in [b-ITU-T G.8121], [b-ITU-T G.8121.1], [b-ITU-T G.8121.2] and [b-ITU-T G.8110.1].

The following terms are defined in [IETF RFC 3032]:

3.1.105 bottom of stack

NOTE Bottom of stack is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.106 label value

NOTE Label value is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.107 time to live

NOTE — Time to live is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

The following terms are defined in [IETF RFC 3270]:

3.1.108 label inferred PHB scheduling class LSP

NOTE — Label inferred PHB scheduling class LSP is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121.], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.109 per-hop behaviour

NOTE—Per-hop behaviour is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

The following terms are defined in [IETF RFC 5462]:

3.1.110 explicitly TC-encoded-PSC LSP

NOTE Explicitly TC-encoded PSC LSP is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121.], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.111 traffic class

NOTE Traffic class is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

The following terms are defined in [IETF RFC 5586]:

3.1.112 associated channel header

NOTE Associated channel header is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121.], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.113 generic associated channel

NOTE Generic associated channel is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.114 G-Ach label

NOTE G Ach Label is referred to in [b-ITU-T G.8121], [b-ITU-T G.8121.1] and [b-ITU-T G.8121.2].

3.1.115 G-Ach packet

NOTE G-Ach packet is referred to in [b-ITU-T G.8110.1].

3.1.116 G-Ach packet payload

NOTE G-Ach packet payload is referred to in [b-ITU-T G.8110.1].

The following terms are defined in [IETF RFC 5921]:

3.1.117 MPLS transport profile (MPLS-TP)

NOTE MPLS transport profile (MPLS-TP) is referred to in [b-ITU-T G.8110.1], [b-ITU-T G.8113.1] and [b-ITU-T G.8113.2].

3.1.118 MPLS-TP LSP

NOTE MPLS-TP LSP is referred to in [b-ITU-T G.8110.1].

3.1.119 pseudowire

NOTE Pseudowire is referred to in [b-ITU-T G.8110.1].

3.1.120 MPLS-TP PE

NOTE MPLS-TP PE is referred to in [ITU-T G.8112].

3.1.121 customer edge (CE)

NOTE CE is referred to in [ITU-T G.8112].

3.2 Terms defined in this Recommendation

This Recommendation defines the following terms:

intra-domain interface (IaDI): A physical interface within the domain of a single network operator.

NOTE - IaDI is referred to in [ITU-T G.8112] and [b-ITU-T G.8012]

inter-domain interface (IrDI): A physical interface that represents the boundary between the administrative domains of different network operators.

NOTE - IrDI is referred to in [ITU-T G.8112] and [b-ITU-T G.8012]

3.2.1 MPLS-TP adapted information (MPLS-TP_AI) traffic unit: The MPLS-TP adapted information (MPLS-TP_AI) traffic unit is an instance of characteristic information and a unit of usage, which consists of an MPLS-TP_AI header containing the bottom of stack indicator (S-bit) field of the MPLS shim header and an MPLS payload field.

NOTE – See more details in [b-ITU-T G.8110.1].

3._2.2 MPLS-TP characteristic information (MPLS-TP_CI) traffic unit: The MPLS-TP characteristic information (MPLS-TP_CI) traffic unit is an instance of characteristic information and a unit of usage, which consists of an MPLS-TP_AI traffic unit or of a MPLS-TP OAM traffic unit, extended with an MPLS-TP_CI header containing the time-to-live (TTL) field of the MPLS shim header.

NOTE 1 – See more details in [b-ITU-T G.8110.1].

NOTE 2 – MPLS-TP CI traffic unit is referred to in [ITU-T G.8112].

3.2.3 MPLS-TP management network (MT_MN): An MPLS-TP management network is a subset of a TMN that is responsible for managing those parts of a network element that contain MPLS-TP layer network entities. An MT_MN may be subdivided into a set of MPLS-TP management subnetworks.

NOTE – MPLS-TP management network (MT_MN) is referred to in [b-ITU-T G.8151].

3.2.4 —MPLS-TP management subnetwork (MT_MSN): An MPLS-TP management subnetwork (MT_MSN) consists of a set of separate embedded control channels (ECC) and associated intra-site data communication links which are interconnected to form a data communications network (DCN) within any given MPLS-TP transport topology. For MPLS-TP, the physical channel supporting the ECC is the MPLS-TP management communication channel (MCC) as defined in [ITU-T G.7712]. An MT_MSN represents a MPLS-TP specific local communication network (LCN) portion of a network operator's overall DCN or TMN.

NOTE – MPLS-TP management subnetwork (MT MSN) is referred to in [b-ITU-T G.8151].

3.2.5 MPLS-TP network element (MT_NE): That part of a network element that contains entities from one or more MPLS-TP layer networks. An MT_NE may therefore be a standalone physical entity or a subset of a network element. It supports at least network element functions (NEF) and may also support an operations system function (OSF). It contains managed objects (MO), a message

communication function (MCF) and a management application function (MAF). The functions of an MT_NE may be contained within an NE that also supports other layer networks. These layer network entities are considered to be managed separately from MPLS-TP entities. As such they are not part of the MT_MN or MT_MSN.

NOTE – MPLS-TP network element (MT NE) is referred to in [b-ITU-T G.8151].

4 Abbreviations and acronyms

The following abbreviations and acronyms are used in a series of MPLS-TP Recommendations.

NOTE – The purpose of this clause is to define a single abbreviation or acronym and avoid overlap of abbreviations or acronyms among MPLS-TP Recommendations.

1DM one-way Delay Measurement

ACH Associated Channel Header

AcSL Accepted Signal Label

AF Atomic Function

AI Adapted Information

AIS Alarm Indication Signal

ALM Alarm reporting

AP Access Point

APC Automatic Protection Coordination

APS Automatic Protection Switching

ARC Alarm Reporting Control

BFD Bidirectional Forwarding Detection

CC Continuity Check

CD Current Data

CC/CV Continuity Check or Connectivity Verification

CCM Continuity Check Message

C-DCI Client – Defect Clear Indication

CFI Client Failure Indication
CI Characteristic Information

CII Common Interworking Indicators

CLNE Client Layer Network Entity

Control Plane

CoS Class of Service
CSF Client Signal Fail

CW Control Word

CtrlP

CO-PS Connection-Oriented Packet Switched

CP Connection Point

CV Connectivity Verification

DA Destination Address

DCC Data Communication Channel
DCN Data Communication Network

DE Drop Eligibility

<u>DEG</u> <u>Degraded</u>

dFOP Failure of Protocol defect
DLM Direct Loss Measurement
DSMap Downstream Mapping
DM Delay Measurement

DMM Delay Measurement Message

<u>DMo</u> <u>on-demand Delay Measurement</u>

<u>DMp</u> <u>proactive Delay Measurement</u>

DMR Delay Measurement Reply

DNR Do-not-Revert

DP Drop Precedence

DPath Data Path

DT Diagnostic Test

ECC Embedded Communication Channels

ECMP Equal Cost Multi-Path

E-LSP Explicitly TC-encoded-PSC LSP

EMF Equipment Management Function

EMS Equipment Management System

ES Experimental Specific

ETH Ethernet MAC layer network

ETH CI Ethernet MAC Characteristic Information

Equipment Management Layer

ETY Ethernet PHY layer network

EXER Exercise

EXM Experimental OAM Message

EXP Experimental

EXR Experimental OAM Reply

FC Frame Count

FCAPS Fault management, Configuration management, Account management,

Performance management and Security management

FDI Forward Defect Indication

FEC Forwarding Equivalence Class

EML

FP Flow Point

FPath Fault Path

FS Forced Switch

FTP Flow Termination Point

GAL Generic Associated channel (G-Ach) Label

G-ACh Generic Associated Channel
GFP Generic Framing Procedure

GFP-F Frame mapped-Generic Framing Procedure

GNE Gateway Network Element

GUI Graphical User Interface

HD History Data

HTML HyperText Markup Language

IANA Internet Assigned Numbers Authority

ICC ITU Carrier Code

IaDI Intra-Domain Interface

IF Interface

ILM Inferred Loss Measurement

IP Internet Protocol

IrDI Inter-Domain Interface

iPHB Incoming Per Hop Behaviour

LAN Local Area Network
LBM Loopback Message

LBR Loopback Reply

LC Link Connection

LCAS Link Capacity Adjustment Scheme

LCK Locked [b-ITU-T G.8121] or Locked Signal ([b-ITU-T G.8113.1] and

[b-ITU-T G.8113.2])

LCN Local Communication Network

LCT Local Craft Terminal
LER Label Edge Router

LI Lock Instruct

LKI Lock Instruct
LKR Lock Report

L-LSP Label-Only-Inferred PSC LSP

LM Loss Measurement

LMM Loss Measurement Message

LMo on-demand Loss Measurement

LMp proactive Loss Measurement

LMR Loss Measurement Reply

LO Lockout of protection

LOC Loss of Continuity

LOS Loss of Signal

LSE Label Stack Entry

LSP Label Switched Path

LSR Label Switch Router

Label Stack LStack

MAC Media Access Control

MAF Management Application Function

MCC Management Communication Channel

MCF Message Communication Function

MD Mediation Device

ME Maintenance Entity

MEL MEG Level

MEG Maintenance Entity Group

MEP Maintenance entity group (MEG) End Point

MIP Maintenance entity group (MEG) Intermediate Point

MF **Mediation Function**

MgmtP Management Plane

MI **Management Information**

MIB Management Information Base

MIP Maintenance entity group Intermediate Point

MMG Mis-merge

MNManagement Network

MO Managed Object

MOC Managed Object Class

MoE MPLS-TP over ETH

MoO MPLS-TP over OTH

MPLS-TP over PDH MoP

MoS MPLS-TP over SDH

MP **Management Point**

MPLS Multi-Protocol Label Switching

MPLS-TP Multi-Protocol Label Switching – Transport Profile

MPLS-TP AI MPLS-TP Adapted Information

MPLS-TP_CI MPLS-TP Characteristic Information MPLS-TPP MPLS-TP Path

MPLS-TPT MPLS-TP Tandem connection monitoring

MS Manual Switch

MS-P Manual Switch to Protection transport entity
MS-W Manual Switch to Working transport entity

M_SDU MAC Service Data Unit
MSN Management Subnetwork
MS-PW Multi-Segment Pseudowire

MT Multi-Protocol Label Switching – Transport Profile

MT C MPLS-TP Channel layer [b-ITU-T G.8151] or MPLS-TP Connection

[ITU-T G.8131]

MT CP MPLS-TP Connection Point

MT_MN MPLS-TP Management Network

MT_MSN MPLS-TP Management Subnetwork

MT_NE MPLS-TP Network Element

MT_P MPLS-TP Path layer

MT_S MPLS-TP Section layer

MT_TT_Sk MPLS-TP Trail Termination Sink

MTDe MPLS-TP MEP Diagnostic function

MTDi MPLS-TP MIP Diagnostic function

MTH MPLS-TP Layer Network

MTH-NNI MPLS-TP Layer Network Network Node Interface

MTM-n MPLS-TP Transport Module layer n

MTP MPLS-TP path layer
MTS MPLS-TP Section

MTU Maximum Transmit Unit

NALM No Alarm reporting

NALM-CD No Alarm reporting, Count Down NALM-NR No Alarm reporting, Not Ready

NALM-QI No Alarm reporting, Qualified Inhibit

NALM-TI No Alarm reporting, Timed Inhibit

NC Network Connection

NE Network Element

NEF Network Element Function

NEL Network Element Layer

NR No Request

NSP Native Service Processing

NNI Network Node Interface or Network Network Interface

NMS Network Management System

Num Number

OAM Operation, Administration and Maintenance

OAM&P Operations, Administration, Maintenance and Provisioning

OC Operator Clear

ODCV On-Demand Connectivity Verification

ODU Optical channel Data Unit

ODUj Optical Channel Data Unit – order j

ODUj-Xv Virtual concatenated Optical Channel Data Unit – order j

ODUk Optical Channel Data Unit – order k

ODUk-Xv Virtual concatenated Optical Channel Data Unit – order k

OpCode Operations Code

oPHB Outgoing Per Hop Behaviour

OPU Optical Payload Unit

OPUk Optical Payload Unit of level k

OPUk-Xv Virtually concatenated Optical Payload Unit of level k

OS Operations System

OSF Operations System Function
OSI Open Systems Interconnection
OTH Optical Transport Hierarchy
OTN Optical Transport Network

p2mp point-to-multipoint

p2p point-to-point

P11s 1544 kbit/s PDH path layer with synchronous 125 µs frame structure according to

[ITU-T G.704]

P12s 2048 kbit/s PDH path layer with synchronous 125 µs frame structure according to

[ITU-T G.704]

P31s 34368 kbit/s PDH path layer with synchronous 125 µs frame structure according to

[ITU-T G.832]

P32e 44 736 kbit/s PDH path layer with frame structure according to [ITU T G.704]44

736 kbit/s PDH path layer according to [ITU T G.705]

PA (Ethernet) Preamble

PD Packet Delay

PDH Plesiochronous Digital Hierarchy

PDU Protocol Data Unit

PDV Packet Delay Variation

PHB Per Hop Behaviour

PHP Penultimate Hop Popping

PHY Physical

PID Protocol Identifier

PM Performance Monitoring

PMC Performance Monitoring Clock
PRBS Pseudo-Random Bit Sequence

PSC PHB Scheduling Class [b-ITU-T G.8121.1] or Protection State Coordination

[ITU-T G.8131]

PSI Payload Structure Indication

PSN Packet Switched Network

PT Payload Type PW Pseudowire

PWE3 Pseudowire Emulation Edge-to-Edge

QoS Quality of Service

QTF Querier's Timestamp Format

RES Reserved overhead

Req Request
Resp Response

RFC IETF Request for Comments

RDI Remote Detect Indication

RI Remote Information

RP Remote Point

RPTF Responder's Preferred Timestamp Format

RR Reverse Request

RTF Responder's Timestamp Format

RT Route Trace

RTC Real Time Clock

Rx Receive

SA Source Address

S-bit Bottom of Stack indicator

S-PE Switching Provider Edge

SCC Signalling Communication Channel
SCN Signalling Communication Network

SD Signal Degrade

SDH Synchronous Digital Hierarchy

SD-P Signal Degrade on Protection transport entity
SD-W Signal Degrade on Working transport entity

SF	Signal Fail
O1	Digital I all

SFD Start of Frame Delimiter

SF-P Signal Fail on Protection transport entity

SF-W Signal Fail on Working transport entity

Sk Sink

SLA Service Level Agreement

SLNE Server Layer Network Entity

SN Sub-Network

SNAP Sub-Network Access Protocol

SNC Sub-Network Connection

SNC/S SNCP with Sublayer monitoring

SNCP Sub-Network Connection Protection

SNMP Simple Network Management Protocol (Note G.8152 uses)

So Source

SPME Sub-Path Maintenance Element

SQI Session Query Interval

SRV Server

SSF Server Signal Fail²

SS-PW Single-Segment Pseudowire

STM-N Synchronous Transport Module – level N

T-PE Terminating Provider Edge(G.8131 amd2)

TC Traffic Class

TCM Tandem Connection Monitoring

TCP Termination Connection Point

TFP Termination Flow Point

TH Throughput

TNE Transport Network Element

TLV Type Length Value

TMN Telecommunication Management Network

TrCP Traffic Conditioning Point

TS Timestamp

TSFmt Timestamp Format

TSB Telecommunication Standardization Bureau

TSD Trail Signal Degrade
TSNUM Tributary Slot Number

² The IETF has not yet selected a term for this abstract information element.

TSF Trail Signal Fail

TST Test

TT Trail Termination

TTL Time-To-Live

TTSI Trail Termination Source Identifier

Tx Transmit

UAS UnAvailable Second

UNI User Network Interface

UNL Unexpected (MEG) Level

UNM Unexpected MEP

UNP Unexpected Period

UNPr Unexpected Priority

VC Virtual Container

VCCV Virtual Circuit Connectivity Verification

VC-m Lower Order VC – order m

VC-n Higher Order VC – order n

VC-n-Xc Contiguous concatenated VC – order n

VC-n-Xv Virtual concatenated VC – order n

vcPT virtual concatenation Payload Type

VcPLM Virtual concatenation Payload Mismatch

VS Vendor Specific

VSM Vendor Specific (OAM) Message

VSR Vendor Specific (OAM) Reply

WAN Wide Area Network

WS WorkStation

WTR Wait To Restore

Appendix I

List of source Recommendations

(This appendix does not form an integral part of this Recommendation.)

This text is an updated version of Recommendation ITU-T G.8101/Y.1355 (2014), *Terms and definitions for MPLS transport profile*. The abbreviations and terms were taken from the Recommendations listed below. Where the definitions were not a part of an explicit Definitions clause of the source Recommendation, the source Recommendation is referenced in a Note following the definition. After this Recommendation is finally approved, corrigenda or revisions to the original sources of these terms will be proposed to replace the definitions in those documents by references to this one (except where the definition is part of the source Recommendation text and not in a definitions clause). The end result should be a single normative definition for each term in this subject area, contained in this Recommendation.

Recommendation	Latest version	MPLS-TP specific definitions
ITU-T G.7712/Y.1703	09/2010 with Amd. 1	No
ITU-T G.8110.1/Y.1370.1	12/2011	No
ITU-T G.8112/Y.1371	10/2012 with Err. 108/2015	Yes
ITU-T G.8113.1/Y.1372.1	11/2012 with Amd. 104/2016	Yes
ITU-T G.8113.2/Y.1372.2	11/2012 with Amd. 108/2015	Yes
ITU-T G.8121/Y.1381	<u>04/2016</u> 11/2013	No
ITU-T G.8121.1/Y.1381.1	<u>04/2016</u> 11/2013	No
ITU-T G.8121.2/Y.1381.2	<u>04/2016</u> 11/2013	No
ITU-T G.8131/Y.1382	07/2014 with Amd 1 & 2	Yes
ITU-T G.8151/Y.1374	01/2015	Yes
<u>ITU-T G.8152/Y.1375</u>	<u>2016</u>	<u>No</u>

Appendix II

Terms and definitions for MPLS transport profile defined by the IETF

(This appendix does not form an integral part of this Recommendation.)

[b-IETF RFC 6291] and [b-IETF RFC 7087] contain provisions which, through reference in this text, constitute provisions of this appendix. At the time of publication, the editions indicated were valid. All RFC/I-D are subject to revision; users of this list are therefore encouraged to investigate the possibility of applying the most recent editions of [b-IETF RFC 6291] and [b-IETF RFC 7087].

II.1 Definitions

The following terms are defined in [b-IETF RFC 6291]:

- II.1.1 Mgmt.
- II.1.2 OAM
- II.1.3 O&M
- II.1.4 SDO

The following terms are defined in [b-IETF RFC 7087]:

- II.1.5 associated bidirectional path
- II.1.6 bidirectional path
- II.1.7 client layer network
- II.1.8 communication channel
- II.1.9 concatenated segment
- II.1.10 control plane
- II.1.11 co-routed bidirectional path
- II.1.12 data communication network (DCN)
- II.1.13 defect
- II.1.14 domain
- II.1.15 embedded communication channel (ECC)
- II.1.16 equipment management function (EMF)
- II.1.17 failure
- II.1.18 fault
- II.1.19 layer network
- II.1.20 link
- II.1.21 maintenance entity (ME)
- **II.1.22** maintenance entity group (MEG)
- II.1.23 maintenance entity group end point (MEP)

- II.1.24 maintenance entity group intermediate point (MIP)
- II.1.25 management communication channel (MCC)
- II.1.26 management communication network (MCN)
- II.1.27 monitoring
- II.1.28 path segment tunnel (PST)
- II.1.29 sub-path maintenance element (SPME)
- II.1.30 tandem connection
- II.1.31 MPLS section
- II.1.32 MPLS transport profile (MPLS-TP)
- II.1.33 MPLS-TP NE
- II.1.34 MPLS-TP network
- II.1.35 MPLS recovery
- II.1.35.1 end-to-end recovery
- II.1.35.2 link recovery
- II.1.35.3 segment recovery
- **II.1.36** MPLS-TP ring topology
- II.1.36.1 MPLS logical ring
- II.1.36.2 MPLS physical ring
- **II.1.37 OAM flow**
- II.1.38 operations support system (OSS)
- II.1.39 path
- II.1.40 protection priority
- II.1.41 section layer network
- II.1.42 segment
- II.1.43 server layer
- II.1.44 server MEPs
- II.1.45 signaling communication channel (SCC)
- II.1.46 signaling communication network (SCN)
- II.1.47 span
- II.1.48 sublayer
- II.1.49 transport entity
- II.1.49.1 working entity
- II.1.49.2 protection entity
- II.1.49.3 recovery entity

II.1.50 transmission media layer

II.1.51 transport network

II.1.52 transport path

II.1.53 transport-path layer

II.1.54 transport-service layer

II.1.55 unidirectional path

II.2 Abbreviations

The following abbreviations are used in IETF RFCs/I-Ds:

CE Customer Edge

DCC Data Communication Channel
DCN Data Communication Network

ECC Embedded Communication Channel
EMF Equipment Management Function
EMS Equipment Management System
GAL Generic Associated Channel Label

LER Label Edge Router

LSR Label Switching Router

MCC Management Communication Channel
MCN Management Communication Network

ME Maintenance Entity

MEG ME Group

MEP MEG End Point

MIP MEG Intermediate Point

MPLS Multiprotocol Label Switching

MPLS-TP MPLS Transport Profile

NE Network Element

NEF Network Element Function

OAM Operations, Administration and Maintenance

OSS Operations Support System
PM Performance Monitoring
PST Path Segment Tunnel

PW Pseudowire

S-PE Switching Provider Edge

SCC Signaling Communication Channel
SCN Signaling Communication Network
SPME Sub-Path Maintenance Element
T-PE Terminating Provider Edge

TCM Tandem Connection Monitoring

Bibliography

[b-ITU-T G.8012]	Recommendation ITU-T G.8012/Y.1308 (2004), Ethernet UNI and Ethernet NNI
[b-ITU-T G.8110.1]	Recommendation ITU-T G.8110.1/Y.1370.1 (2011), Architecture of the Multi-Protocol Label Switching transport profile layer network.
[b-ITU-T G.8113.1]	Recommendation ITU-T G.8113.1/Y.1372.1 (20122016), Operations, administration and maintenance mechanism for MPLS-TP in packet transport networks, plus Amendment 1 (2013).
[b-ITU-T G.8113.2]	Recommendation ITU-T G.8113.2/Y.1372.2 (20122015), Operations, administration and maintenance mechanisms for MPLS-TP networks using the tools defined for MPLS, plus Amendment 1 (2013).
[b-ITU-T G.8121]	Recommendation ITU-T G.8121/Y.1381 (20132016), Characteristics of MPLS-TP equipment functional blocks.
[b-ITU-T G.8121.1]	Recommendation ITU-T G.8121.1/Y.1381.1 (20132016), Characteristics of MPLS-TP equipment functional blocks supporting ITU-T G.8113.1/Y.1372.1 OAM mechanisms.
[b-ITU-T G.8121.2]	Recommendation ITU-T G.8121.2/Y.1381.2 (2012016), Characteristics of MPLS-TP equipment functional blocks supporting ITU-T G.8113.2/Y.1372.2 OAM mechanisms.
[b-ITU-T G.8151]	Recommendation ITU-T G.8151/Y.1374 (2015), Management aspects of the MPLS-TP network element.
[b-ITU-T G.8152]	Recommendation ITU-T G.8152/Y.1375 (2016), Protocol-neutral management information model for the MPLS-TP network element
[b-IETF RFC 6291]	IETF RFC 6291 (2011), Guidelines for the Use of the "OAM" Acronym in the IETF.
[b-IETF RFC 7087]	IETF RFC 7087 (2013), A Thesaurus for the Interpretation of Terminology Used in MPLS Transport Profile (MPLS-TP) Internet-Drafts and RFCs in the Context of the ITU-T's Transport Network Recommendations.

ITU-T Y-SERIES RECOMMENDATIONS

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

GLOBAL INFORMATION INFRASTRUCTURE	
General	Y.100-Y.199
Services, applications and middleware	Y.200-Y.299
Network aspects	Y.300-Y.399
Interfaces and protocols	Y.400-Y.499
Numbering, addressing and naming	Y.500-Y.599
Operation, administration and maintenance	Y.600-Y.699
Security	Y.700-Y.799
Performances	Y.800-Y.899
INTERNET PROTOCOL ASPECTS	
General	Y.1000-Y.1099
Services and applications	Y.1100-Y.1199
Architecture, access, network capabilities and resource management	Y.1200-Y.1299
Transport	Y.1300-Y.1399
Interworking	Y.1400-Y.1499
Quality of service and network performance	Y.1500-Y.1599
Signalling	Y.1600-Y.1699
Operation, administration and maintenance	Y.1700-Y.1799
Charging	Y.1800-Y.1899
IPTV over NGN	Y.1900-Y.1999
NEXT GENERATION NETWORKS	
Frameworks and functional architecture models	Y.2000-Y.2099
Quality of Service and performance	Y.2100-Y.2199
Service aspects: Service capabilities and service architecture	Y.2200-Y.2249
Service aspects: Interoperability of services and networks in NGN	Y.2250-Y.2299
Enhancements to NGN	Y.2300-Y.2399
Network management	Y.2400-Y.2499
Network control architectures and protocols	Y.2500-Y.2599
Packet-based Networks	Y.2600-Y.2699
Security	Y.2700-Y.2799
Generalized mobility	Y.2800-Y.2899
Carrier grade open environment	Y.2900-Y.2999
FUTURE NETWORKS	Y.3000-Y.3499
CLOUD COMPUTING	Y.3500-Y.3999

 $For {\it further details, please refer to the list of ITU-T Recommendations}.$

SERIES OF ITU-T RECOMMENDATIONS

Series A	Organization of the work of ITU-T
Series D	General tariff principles
Series E	Overall network operation, telephone service, service operation and human factors
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
Series H	Audiovisual and multimedia systems
Series I	Integrated services digital network
Series J	Cable networks and transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
Series L	Construction, installation and protection of cables and other elements of outside plant
Series M	Telecommunication management, including TMN and network maintenance
Series N	Maintenance: international sound programme and television transmission circuits
Series O	Specifications of measuring equipment
Series P	Terminals and subjective and objective assessment methods
Series Q	Switching and signalling
Series R	Telegraph transmission
Series S	Telegraph services terminal equipment
Series T	Terminals for telematic services
Series U	Telegraph switching
Series V	Data communication over the telephone network
Series X	Data networks, open system communications and security
Series Y	Global information infrastructure, Internet protocol aspects and next-generation networks
Series Z	Languages and general software aspects for telecommunication systems