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G.8101/Y.1355
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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

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 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**
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
1.0	ITU-T G.8101/Y.1355	2006-12-14	15
2.0	ITU-T G.8101/Y.1355	2010-07-29	15

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.

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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/.

CONTENTS

Page

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 MPLS transport profile (MPLS-TP) found listed in Appendix I.

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.805]   Recommendation ITU-T G.805 (2000), *Generic functional architecture of transport networks*.

[ITU-T G.870]   Recommendation ITU-T G.870/Y.1352 (2010), *Terms and definitions for optical transport networks*.

[ITU-T G.8010]   Recommendation ITU-T G.8010/Y.1306 (2004), *Architecture of Ethernet layer networks*, plus Amendment 2 (2010).

[ITU-T X.731]   Recommendation ITU-T X.731 (1992) | ISO/IEC 10164-2:1993, *Information technology – Open Systems Interconnection – Systems management: State management function*.

[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), *Multi-Protocol Label Switching (MPLS) Label Stack Entry: EXP Field Renamed to Traffic Class Field*.

[IETF RFC 5586]   IETF RFC 5586 (2009), *MPLS Generic Associated Channel*.

3   Definitions

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

3.1   access point

3.2   adapted information

3.3   administrative domain

3.4   characteristic information

3.5   client/server relationship

3.6   connection

3.7   connection point

3.8 connection supervision

3.9 layer network

3.10 link

3.11 link connection

3.12 network

3.13 network connection

3.14 reference point

3.15 sublayer

3.16 subnetwork

3.17 subnetwork connection

3.18 tandem connection

3.19 termination connection point

3.20 trail

3.21 trail termination

3.22 transport

3.23 transport entity

3.24 transport processing function

3.25 unidirectional connection

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

3.26 label

3.27 label stack

3.28 label switched path

3.29 MPLS label stack

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

3.30 bottom of stack

3.31 label value

3.32 time to live

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

3.33 label inferred PHB scheduling class LSP

3.34 per hop behavior

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

3.35 Explicitly TC-encoded-PSC LSP

3.36 traffic class

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

3.37 Associated Channel Header

3.38 Generic Associated Channel

3.39 G-ACh packet

3.40   G-ACh packet payload

The following terms are defined in [ITU-T G.870]:

3.41   network survivability

3.42   protection

3.43   restoration

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

3.44   administrative state

The following terms are defined in [ITU-T G.8010]:

3.45   maintenance entity

3.46   maintenance entity group

3.47   maintenance entity group intermediate point compound function

3.48   on-demand monitoring

3.49   pro-active monitoring

4   Abbreviations

This Recommendation uses the following abbreviations:

ACH	Associated Channel Header
AI	Adapted Information
AP	Access Point
APS	Automatic Protection Switch[1]
CI	Characteristic Information
CII	Common Interworking Indicators
CW	Control Word
CO-PS	Connection-Oriented Packet Switched
CP	Connection Point
D	Data (i.e., traffic unit)
DE	Drop Eligibility
ECC	Embedded Communication Channels[2]
ECMP	Equal Cost Multi-Path
E-LSP	Explicitly TC-encoded-PSC LSP
ETH	Ethernet MAC layer network
FP	Flow Point
GAL	Generic Associated Channel (G-ACh) Label
G-ACh	Generic Associated Channel

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[1] The IETF has not yet selected a term for this set of functions.

[2] The IETF uses the term CCh.

IP	Internet Protocol
iPHB	Incoming Per Hop Behaviour
LC	Link Connection
L-LSP	Label-Only-Inferred PSC LSP
LSE	Label Stack Entry
LSP	Label Switched Path
ME	Maintenance Entity
MEG	Maintenance Entity Group
MEP	Maintenance entity group End Point
MIP	Maintenance entity group Intermediate Point
MPLS	Multi-Protocol Label Switching
MPLS-TP	Multi-Protocol Label Switching – Transport Profile
MS-PW	Multi-Segment Pseudowire
MT	Multi-Protocol Label Switching – Transport Profile
MTD	MPLS-TP Diagnostic function
MTDi	MPLS-TP Diagnostic function within MTx MIP
MTS	MPLS-TP Section
NC	Network Connection
NE	Network Element
NSP	Native Service Processing
NMS	Network Management System
OAM	Operation, Administration and Maintenance
ODU	Optical channel Data Unit
oPHB	Outgoing Per Hop Behaviour
OTH	Optical Transport Hierarchy
p2mp	point-to-multipoint
p2p	point-to-point
P	Priority
PHB	Per Hop Behaviour
PHP	Penultimate Hop Popping
PID	Protocol Identifier
PSC	PHB Scheduling Class
PW	Pseudowire
S-bit	Bottom of Stack indicator
SCN	Signalling Communication Network
SDH	Synchronous Digital Hierarchy
Sk	Sink

SN	Sub-Network
SNC	Sub-Network Connection
SNC/S	SNCP with Sublayer monitoring
SNCP	Sub-Network Connection Protection
So	Source
SSF	Server Signal Fail[3]
SS-PW	Single-Segment Pseudowire
TC	Traffic Class
TCM	Tandem Connection Monitoring
TCP	Termination Connection Point
TSD	Trail Signal Degrade
TSF	Trail Signal Fail
TT	Trail Termination
TTL	Time-To-Live
VC	Virtual Container

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[3] The IETF has not yet selected a term for this abstract information element.

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 – "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 ITU-T	Latest version
G.7712/Y.1703	09/2010

Bibliography

[b-ITU-T G.806]   Recommendation ITU-T G.806 (2006), *Characteristics of transport equipment – Description methodology and generic functionality*.

[b-ITU-T G.808.1]   Recommendation ITU-T G.808.1 (2006), *Generic protection switching – Linear trail and subnetwork protection*.

[b-ITU-T G.7712]   Recommendation ITU-T G.7712/Y.1703 (2010), *Architecture and specification of data communication network*.

[b-ITU-T G.8080]   Recommendation ITU-T G.8080/Y.1304 (2006), *Architecture for the automatically switched optical network (ASON)*.

[b-ITU-T G.8110]   Recommendation ITU-T G.8110/Y.1370 (2005), *MPLS layer network architecture*.

[b-ITU-T Y.1415]   Recommendation ITU-T Y.1415 (2005), *Ethernet-MPLS network interworking – User plane interworking*.

[b-IETF RFC 5718]   IETF RFC 5718 (2010), *An In-band Data Communication Network For the MPLS Transport Profile*.

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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
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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**
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