

IETF RFC 5921 Reference Page

A Framework for MPLS in Transport Networks

Internet Engineering Task Force (IETF)
Request for Comments: 5921
Category: Informational
ISSN: 2070-1721

M. Bocci, Ed.
Alcatel-Lucent
S. Bryant, Ed.
D. Frost, Ed.
Cisco Systems
L. Levrau
Alcatel-Lucent
L. Berger
LabN
July 2010

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Abstract

This document specifies an architectural framework for the application of Multiprotocol Label Switching (MPLS) to the construction of packet-switched transport networks. It describes a common set of protocol functions -- the MPLS Transport Profile (MPLS-TP) -- that supports the operational models and capabilities typical of such networks, including signaled or explicitly provisioned bidirectional connection-oriented paths, protection and restoration mechanisms, comprehensive Operations, Administration, and Maintenance (OAM) functions, and network operation in the absence of a dynamic control plane or IP forwarding support. Some of these functions are defined in existing MPLS specifications, while others require extensions to existing specifications to meet the requirements of the MPLS-TP.

This document defines the subset of the MPLS-TP applicable in general and to point-to-point transport paths. The remaining subset, applicable specifically to point-to-multipoint transport paths, is outside the scope of this document.

This document is a product of a joint Internet Engineering Task Force (IETF) / International Telecommunication Union Telecommunication Standardization Sector (ITU-T) effort to include an MPLS Transport Profile within the IETF MPLS and Pseudowire Emulation Edge-to-Edge (PWE3) architectures to support the capabilities and functionalities of a packet transport network as defined by the ITU-T.

This IETF Request For Comments (RFC) provides useful background information on the transport of Carrier Ethernet services over MPLS-TP networks.

Abstract:

"This document specifies an architectural framework for the application of Multiprotocol Label Switching (MPLS) to the construction of packet-switched transport networks. It describes a common set of protocol functions -- the MPLS Transport Profile (MPLS- TP) -- that supports the operational models and capabilities typical of such networks, including signaled or explicitly provisioned bidirectional connection-oriented paths, protection and restoration mechanisms, comprehensive Operations, Administration, and Maintenance (OAM) functions, and network operation in the absence of a dynamic control plane or IP forwarding support. Some of these functions are defined in existing MPLS specifications, while others require extensions to existing specifications to meet the requirements of the MPLS-TP. This document defines the subset of the MPLS-TP applicable in general and to point-to-point transport paths. The remaining subset, applicable specifically to point-to-multipoint transport paths, is outside the scope of this document. This document is a product of a joint Internet Engineering Task Force (IETF) / International Telecommunication Union Telecommunication Standardization Sector (ITU-T) effort to include an MPLS Transport Profile within the IETF MPLS and Pseudowire Emulation Edge-to-Edge (PWE3) architectures to support the capabilities and functionalities of a packet transport network as defined by the ITU-T."

More links relating to MPLS-TP can be found at the Wikipedia page on this topic.

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