



# COVERING NOTE

---

GENERAL SECRETARIAT OF THE INTERNATIONAL TELECOMMUNICATION UNION

---

Geneva, 6 September 2012

ITU – TELECOMMUNICATION STANDARDIZATION SECTOR

**Subject: Erratum (09/2012) to Recommendation ITU-T G.8110.1/Y.1370.1 (2011), *Architecture of the Multi-Protocol Label Switching transport profile layer network***

*Replace the first page of the Recommendation with the contents of the following two pages:*



# Recommendation ITU-T G.8110.1/Y.1370.1

## Architecture of the Multi-Protocol Label Switching transport profile layer network<sup>1</sup>

### 1 Scope

This Recommendation provides the functional components, based on [ITU-T G.805], that are necessary to describe the deployment of Multi-Protocol Label Switching Transport Profile (MPLS-TP) in a transport network. This model allows MPLS-TP to be modelled in a way that is consistent with the description of other transport technologies defined by ITU-T, (e.g., the synchronous digital hierarchy (SDH), the optical transport network (OTN), etc.).

This Recommendation provides a representation of the MPLS-TP technology using the methodologies that have been used for other transport technologies, (e.g., SDH, OTN and Ethernet).<sup>2</sup>

---

<sup>1</sup> Cisco Systems has expressed concerns that the following text has been removed from the consented text: "This Recommendation complies with the transport profile of MPLS Architecture as defined by the IETF. In the event of a difference between this ITU-T Recommendation and any of the normatively referenced IETF RFCs, the RFCs will take precedence." as without this statement, interoperability issues may arise.

<sup>1</sup> France Telecom Orange has expressed its concerns that the following text has been removed from the consented text: "This Recommendation complies with the transport profile of MPLS Architecture as defined by the IETF. In the event of a difference between this ITU-T Recommendation and any of the normatively referenced IETF RFCs, the RFCs will take precedence." as without this statement, interoperability issues may arise.

<sup>1</sup> Juniper Networks has stated its concerns about the changes to the consented text of this Recommendation that it believes have introduced potential issues in implementation, deployment, and interoperability. Juniper Networks believes that it is important to provide a clarification that in the event of any misalignment, the definition of MPLS provided in the referenced RFCs takes precedence over any description or modeling of MPLS-TP provided in this Recommendation.

<sup>1</sup> Nokia Siemens Networks has expressed concerns that the following text has been removed from the consented text: "This Recommendation complies with the transport profile of MPLS Architecture as defined by the IETF. In the event of a difference between this ITU-T Recommendation and any of the normatively referenced IETF RFCs, the RFCs will take precedence." as without this statement, interoperability issues may arise.

<sup>1</sup> Telefon AB - LM Ericsson has expressed concerns that the following text has been removed from the consented text: "This Recommendation complies with the transport profile of MPLS Architecture as defined by the IETF. In the event of a difference between this ITU-T Recommendation and any of the normatively referenced IETF RFCs, the RFCs will take precedence." as without this statement, interoperability issues may arise.

<sup>1</sup> Verizon Communications has expressed concerns that the following text has been removed from the consented ITU-T G.8110.1 text: "This Recommendation complies with the transport profile of MPLS Architecture as defined by the IETF. In the event of a difference between this ITU-T Recommendation and any of the normatively referenced IETF RFCs, the RFCs will take precedence." Without this statement, interoperability issues may arise.

MPLS-TP is a connection-oriented packet-switched transport layer network technology that uses pseudowires (PWs) and MPLS-TP label switched paths (LSPs). The MPLS-TP is a profile of the MPLS that supports deployment in transport networks and allows operations in a manner consistent with other transport technologies. Its operation is independent of the mechanisms used for configuration and management. In some applications, the data plane only supports forwarding based on the MPLS label; it does not support IP forwarding.

The architecture of the MPLS-TP forwarding, operation, administration and maintenance (OAM), and network survivability, is modelled from a network-level viewpoint. The description of the control plane and management plane aspects of the MPLS-TP is outside the scope of this Recommendation.

The functional components described in this Recommendation also support the architecture for point-to-multipoint (p2mp) MPLS-TP LSPs in compliance with [IETF RFC 5331] and [IETF RFC 5332].

As the MPLS-TP is a profile of the MPLS, this Recommendation uses the applicable functional components provided in the MPLS layer network architecture of [ITU-T G.8110] and extends them with additional capabilities (e.g., OAM and protection) that are not modelled in [ITU-T G.8110].

This version of this Recommendation only provides those functional components (based on ITU-T G.805) and architectural models required to model an Ethernet service carried by a single-segment pseudowire (SS-PW) over co-routed bidirectional LSPs, which may be hierarchical, and do not use penultimate hop popping (PHP).

Other clients for LSPs (e.g., Internet Protocol (IP)), and PWs and modes of operation (e.g., multi-segment pseudowire (MS-PW) or associated bidirectional LSPs), as described in [IETF RFC 5921], are supported as defined in [IETF RFC 5921] and [IETF RFC 6215] but are not modelled in this version of the Recommendation. They will be added in future versions of this Recommendation.

---

<sup>2</sup> This ITU-T Recommendation is intended to be aligned with the IETF MPLS RFCs normatively referenced by this Recommendation.