



Question(s): 10, 12/15**LIAISON STATEMENT****Source:** ITU-T Study Group 15**Title:** Liaison statement on clarifying Point to Multi Point (P2MP) combinations (to IETF PWE3 and MPLS WGs)

LIAISON STATEMENT**For action to:** IETF PWE3 WG, MPLS WG**For comment to:** -**For information to:** -**Approval:** ITU-T SG15 meeting (12 July 2013)**Deadline:** 1 December 2013

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During the recent July 1-12 meeting of SG15, Q12/15 discussed the IETF work on Point to MultiPoint (P2MP) Pseudowires (PWs) and Label Switched Paths (LSPs) for use with MPLS-TP. It was noted that there are many different possible combinations of PWs and LSPs that could be configured and deployed for P2MP depending on the application at hand. Some of the combinations are more applicable than others and that some may not be applicable at all.

Looking at the available IETF documentation on P2MP PW and LSPs, draft-ietf-pwe3-p2mp-pw-requirements was helpful in starting to understand the valid combinations. Below in Appendix 1 is an initial analysis of some possible scenarios for your consideration taken from one of the contributions to Q12/15 during the last meeting.

We would greatly appreciate your guidance and clarification on those scenarios that are valid and their potential application. If this information is already available, or under development, we would very much appreciate any information on the work's status and progression.

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Appendix 1 Initial P2MP Relationship Analysis

Discussion on applicability of MPLS-TP P2MP

P2MP relationship between PW and LSP layers

When MPLS-TP P2MP is considered, there are some patterns of applicability in the context of layers. Three models are shown in Fig.2. These models could be implementation issues. In terms of interoperability, however, fewer models, or at least policies for layer models are desirable for operators.

In model 1, the channel layer is SS-PW, but in the path layer, packets are multi-casted. As a result, the termination point of SS-PW in the channel layer would be P2MP, but there is no forwarding engine in the channel layer itself. In model 2 and model 3, P2MP MS-PW is supported in the channel layer. Implementation becomes more complex, so these models should be avoided as much as possible.

Model 3 might be applicable to the case shown in Fig. 3. An L2-VPN that has a total of four virtual switch instances (VSIs) is assumed in this network. MS-PW P2MP may be used because P2P LSP is applied between two NEs for robust management of the link.

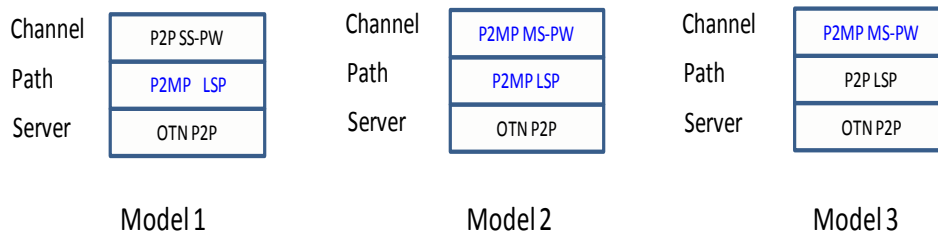


Fig.2 Possible models of layer structure in channel, path and server

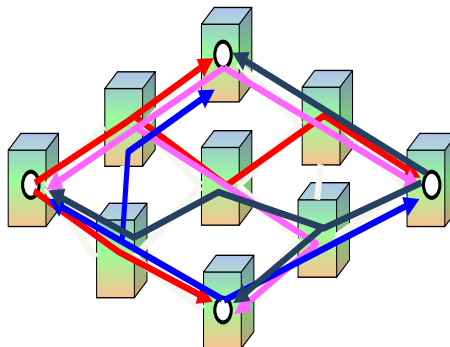


Fig.3: L2 VPN network model using P2MP LSP

We would like to solicit comments on the necessity or applicability of MS-PW P2MP and possibility of layered structures of MS-PW P2MP and LSP P2MP.