

VPLS Overview

draft-lasserre-tls-mpls-00.txt

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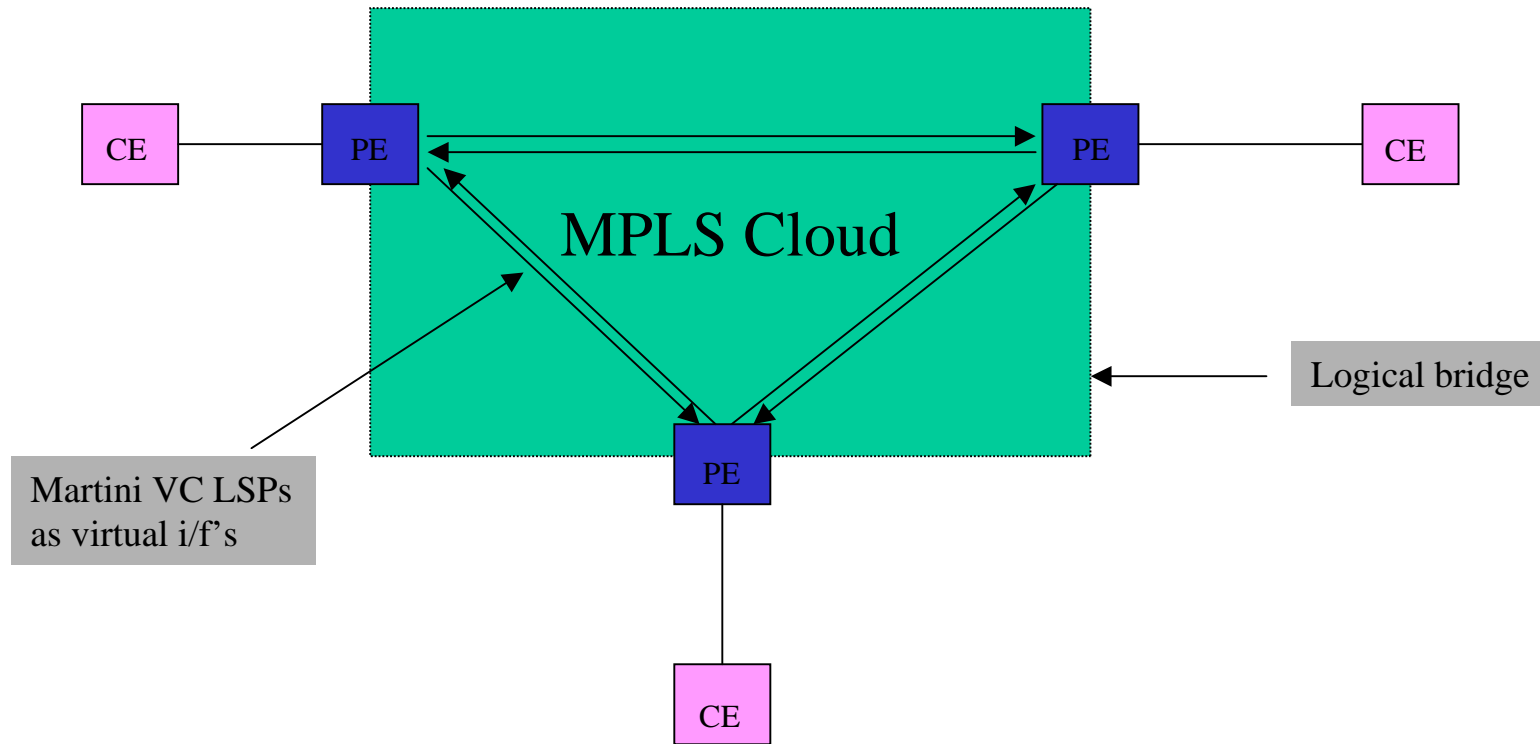
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VPLS Reference Model



Learning Bridging Model

- Packet replication at ingress LER
 - For unknown & broadcast/multicast
 - Across all VC LSPs that are part of VPN
- Once MAC address is learned, frame is sent directly over corresponding LSP
- MAC addresses learned on inbound LSPs need to be associated with outbound LSP of corresponding pair

VPLS Design

- Full mesh of LSPs
 - Logical full mesh of VC LSPs rooted at each PE
 - No need to act as L2 transit node
 - No STP in SP network

VPLS Provisioning

- VPN Discovery
 - Each PE advertizes which L2 VPNs it serves to other PEs
 - Currently via LDP
 - In the future, via BGP
 - Use of RFC2685 VPN-Id
 - New interface parameter of VC FEC

Future Work

- Combine draft-lasserre and draft-vkompella drafts
 - Minor differences (VPN-ID vs VCID)
 - MAC Withdrawal
- Auto-discovery of VPNs and TLS capable PEs
- Hub-and-spoke and hierarchical topologies