

Layer 2 VPNs

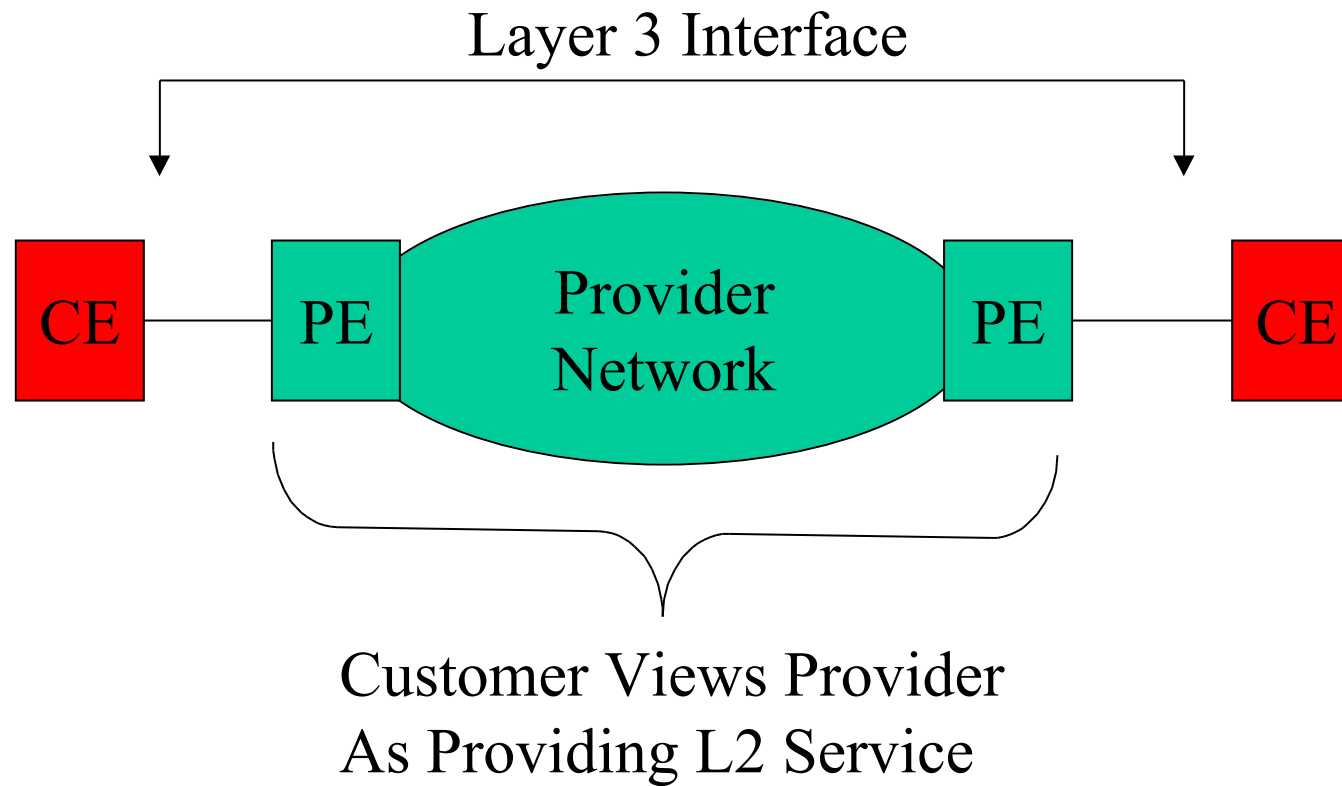
draft-kb-ppvpn-l2vpn-motiv-00

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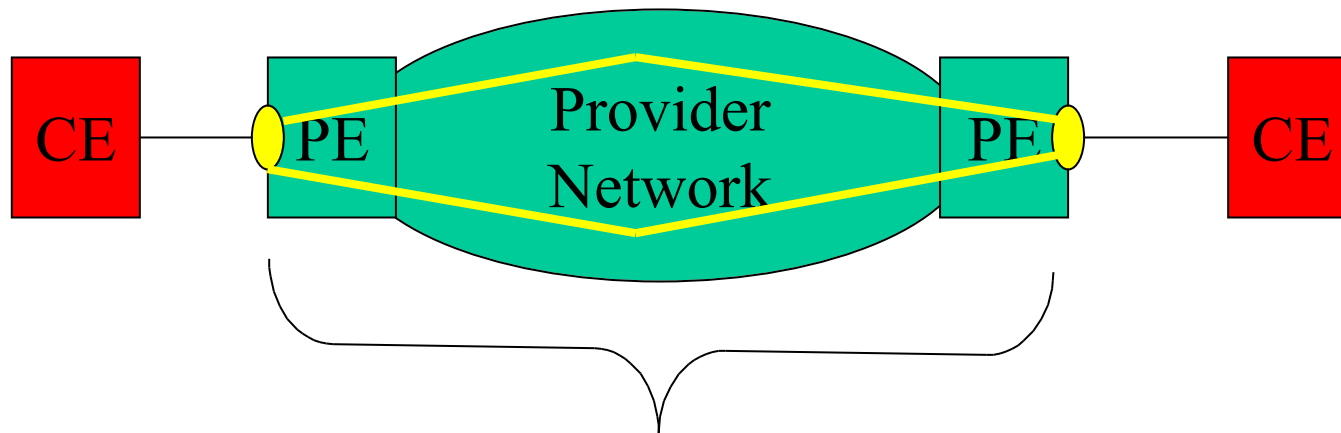
Purpose

- Review Salient Features of L2VPN
 - Forwarding Properties
 - Routing Properties
 - Operational Characteristics

The Big Picture



Some Details



PEs Map Customer Facing Ports
To a Pair of Unidirectional Tunnels
(MPLS LSPs)

Routing Properties

- Routing Privacy
 - Provider carries customer routing traffic
 - Provider does not participate in customer routing domain
- Routing Scalability
- Router Adjacencies
 - Customer may require a full mesh
 - Customer may require a less than full mesh

Routing Properties (continued)

- Multicast
 - Customer routers replicate multicast traffic
 - Customer routers maintain multicast state
 - Less than full mesh L2 topology maximizes bandwidth savings offered by IP multicast

Operational Characteristics

- Single Infrastructure
 - Routers provide L2 connections
- Migration
 - Small change for many customers
- Ease of Configuration
 - Avoid N^2 provisioning problem
 - Goal: Add a PE port to the entire VPN mesh by provisioning a single PE router
 - Solution: Signaling between PEs