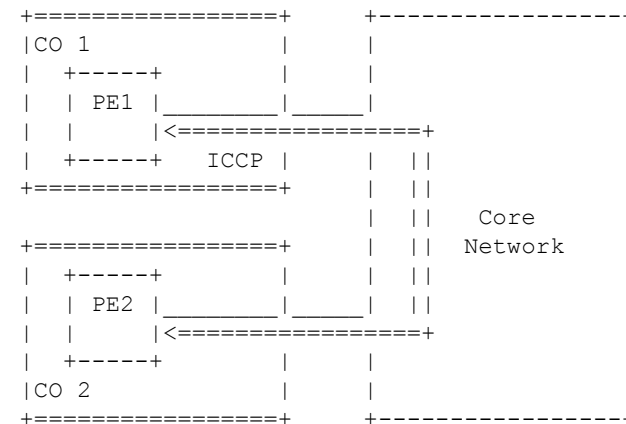
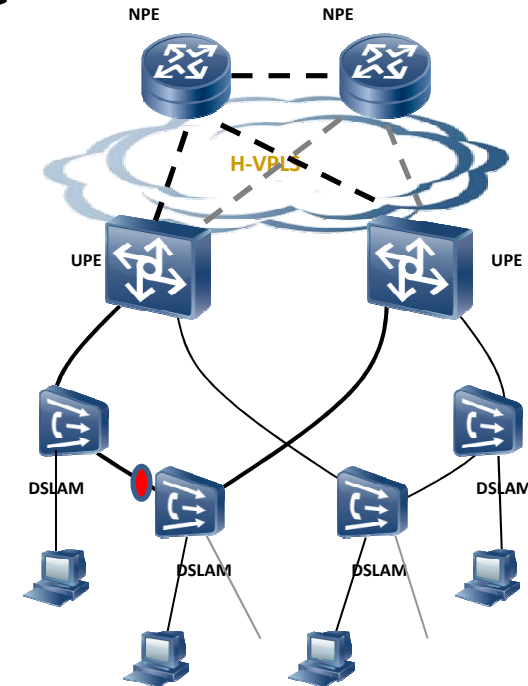


STP Application of ICCP

Mingui Zhang, Huafeng Wen

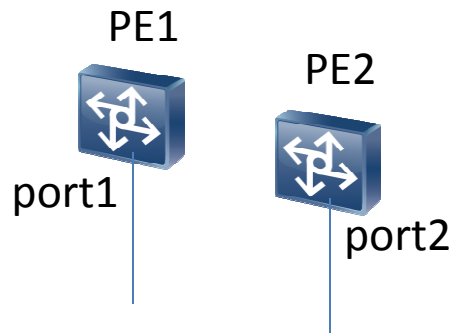
The use case

- DSLAMs running STP usually span broadly in a region.
- Customers requires their STP networks access to L2VPN reliably. To meet this requirement, PEs can deploy ICCP to offer multiple attachments to customers' networks.
- This draft talks about how to support STP application in ICCP.



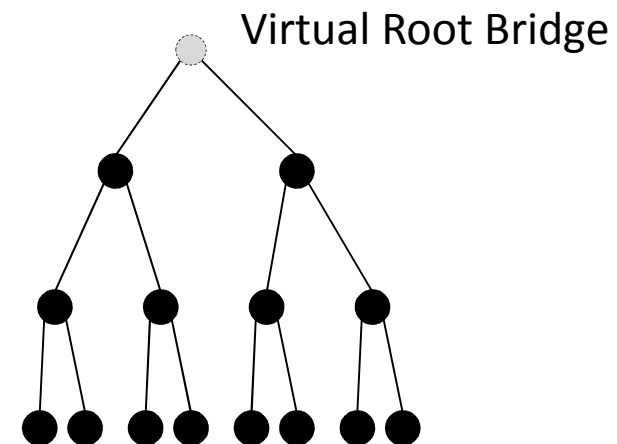
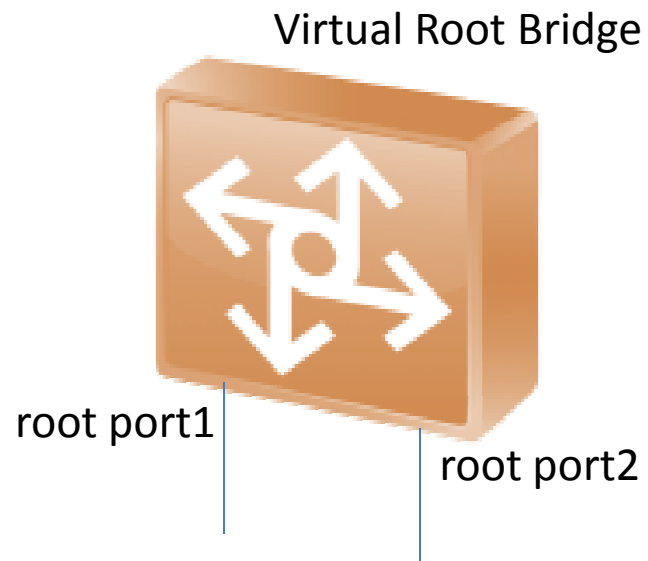
Virtual Root Bridge

- Access ports from different PEs.
- Pretending to be ports from a single 'Virtual Root Bridge'.



Virtual Root Bridge

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STP Application TLVs

- STP Connect TLV
 - Establish the connection
- STP Config TLVs
 - Communicate network state or configuration
- STP Synchronization Request TLV
 - Request to transmit the configuration or state
- STP Synchronization Data TLV
 - Delimiting the TLVs being transmitted.

E.g., STP System Config: MAC and ROID

- MAC: The MAC of the root
 - Elect the minimum as the BridgeIdentifier of the virtual root bridge
- ROID: Redundant Object Identification
 - Identify the Redundancy Object.

E.g., STP Topology Changed Instances

- ‘InstanceID List’ of Multiple Spanning Tree Instances
 - This TLV identifies those instances whose topologies are changed.
 - When this TLV is received, the peering PE starts to send out configuration BPDUs from the root port with the topology change (TC) bit set for those affected instances.

Next Steps

- Call for WG adoption
- Welcome comments

Thanks!