

draft-lee-teas-actn-vpn-poi-00

Applicability of ACTN to VPN with the Integration of Packet and Optical Networks

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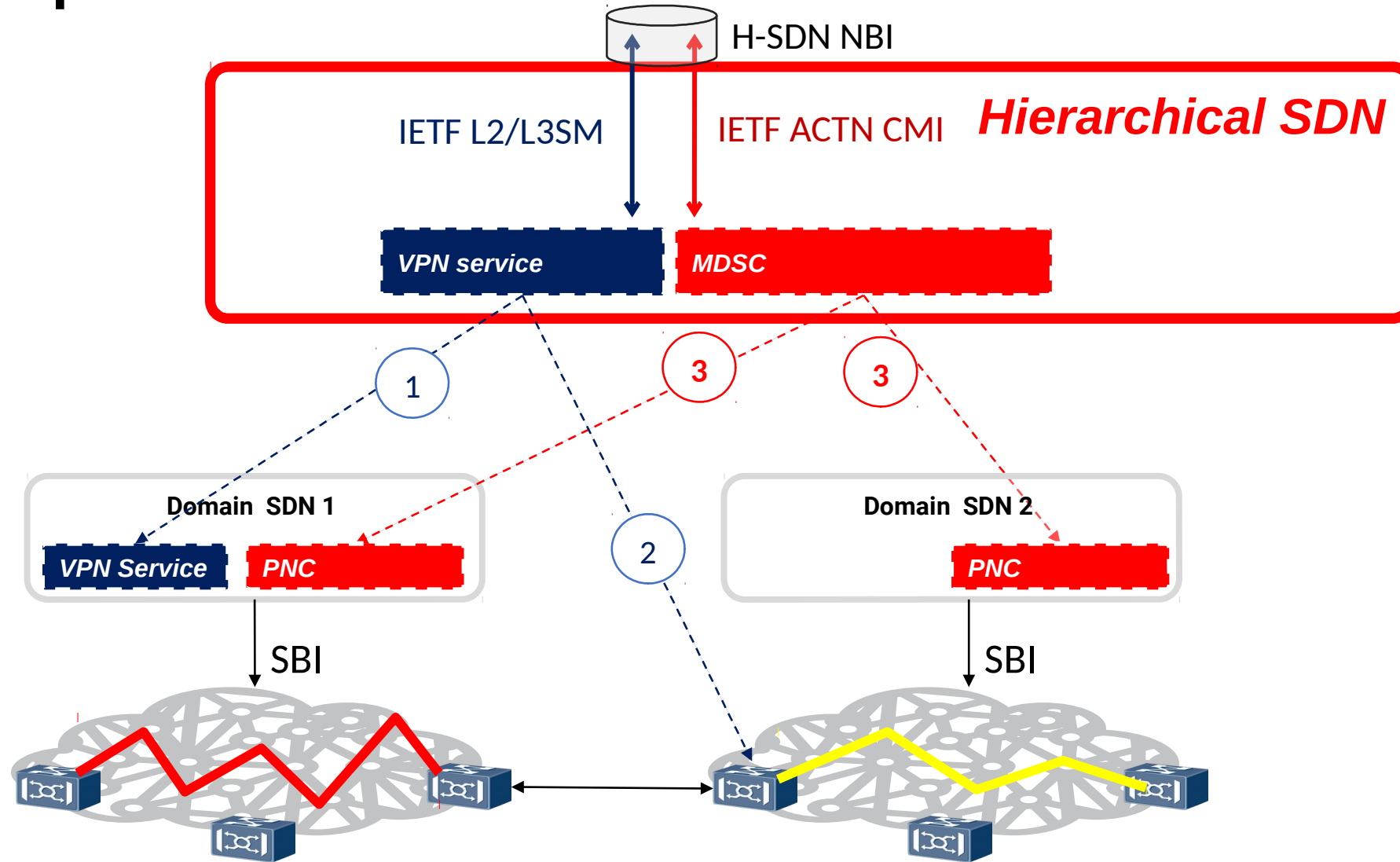
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Agenda

- Scope of the draft:
 - Applicability of ACTN to VPN with Packet Optical Integration
 - Role of POI in hard isolation scenarios
- TE & Service mapping function:
 - “One of the important functions the MDSC performs is to identify which TE Tunnels should carry the L3VPN traffic and to relay this information to the domain SDN controllers to ensure proper VRF table be populated according to the TE binding requirement for the L3VPN. This function is referred to as TE & service mapping function.”

Recap of ACTN and L2/L3VPN services



1 Service - Network Model

2 Service - Device Model

3 Underlay - IETF ACTN MPI

TE & Service Mapping models

New VN/Tunnel Binding

- Customer could request a VPN service with a new VN/Tunnel not shared with other existing services.
- **Hard Isolation with deterministic characteristics**
- **Hard Isolation**
- **Soft Isolation**

VN/Tunnel Sharing

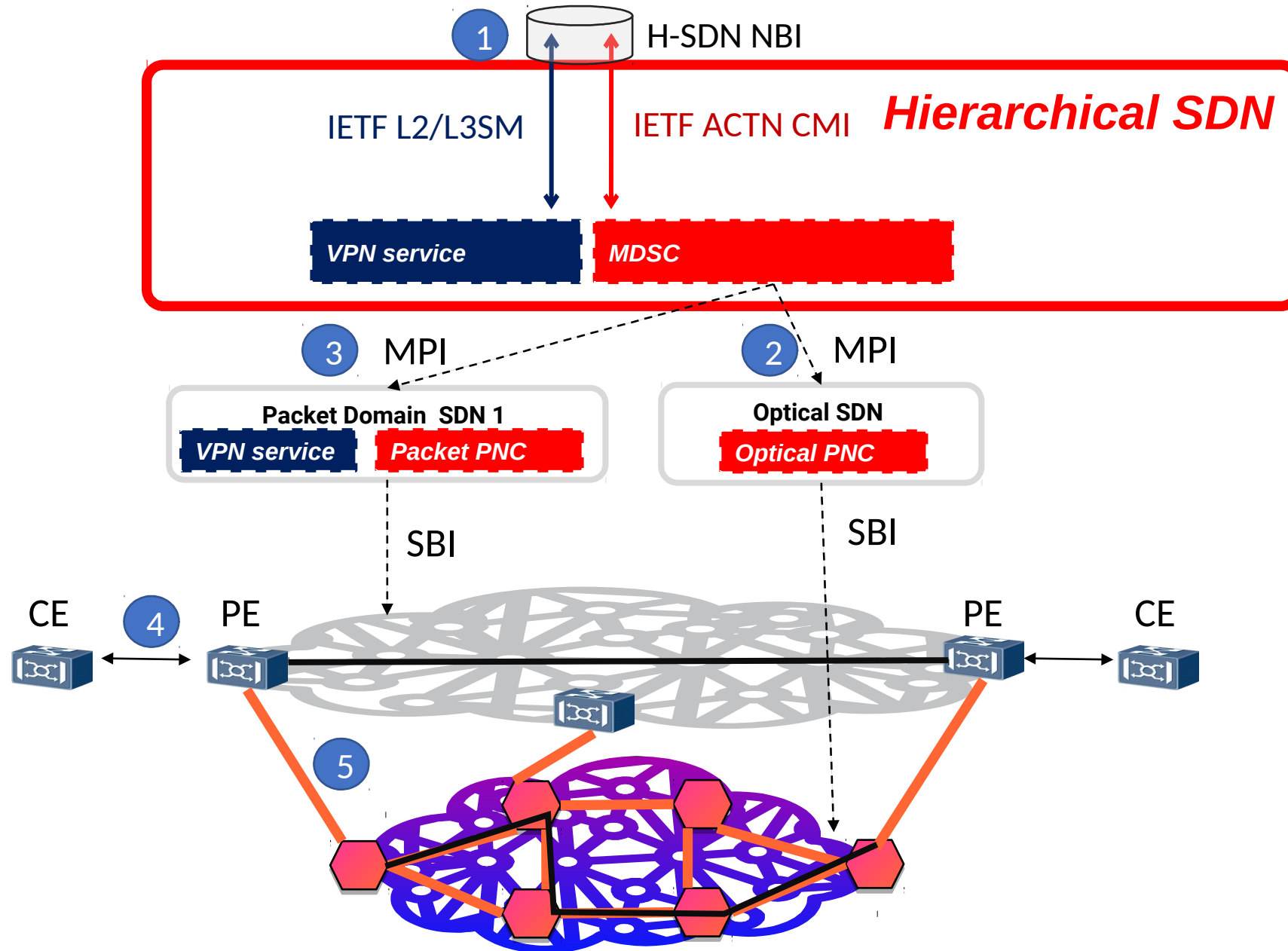
- Customer could request a VPN where the tunnels can be shared with other existing VPNs.

VN/Tunnel Modify

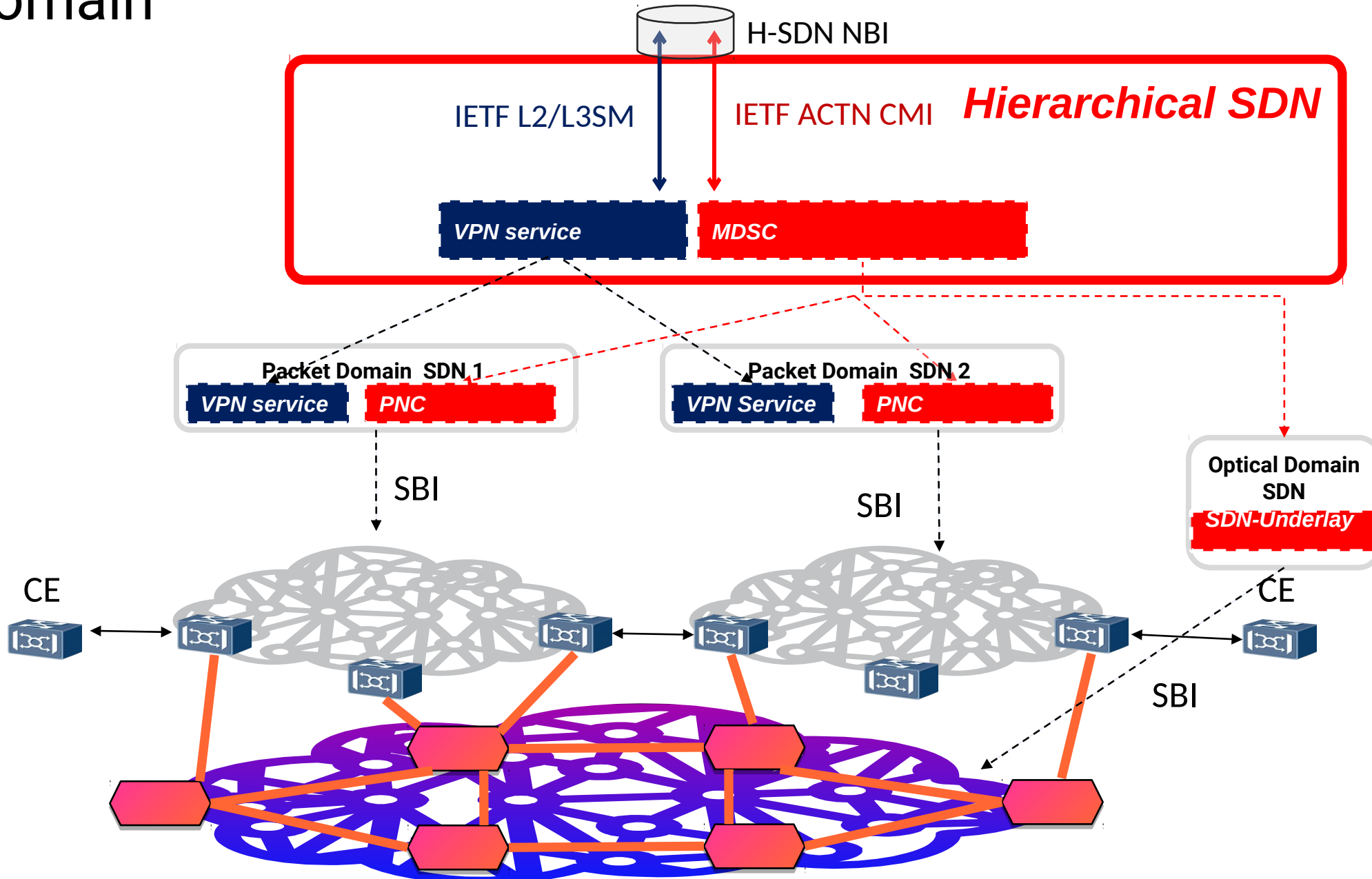
- This mode allows the modification of the properties of the existing VN/tunnel (e.g., bandwidth) when VN/Tunnel Selection Mode is applied.

- Focus of this draft

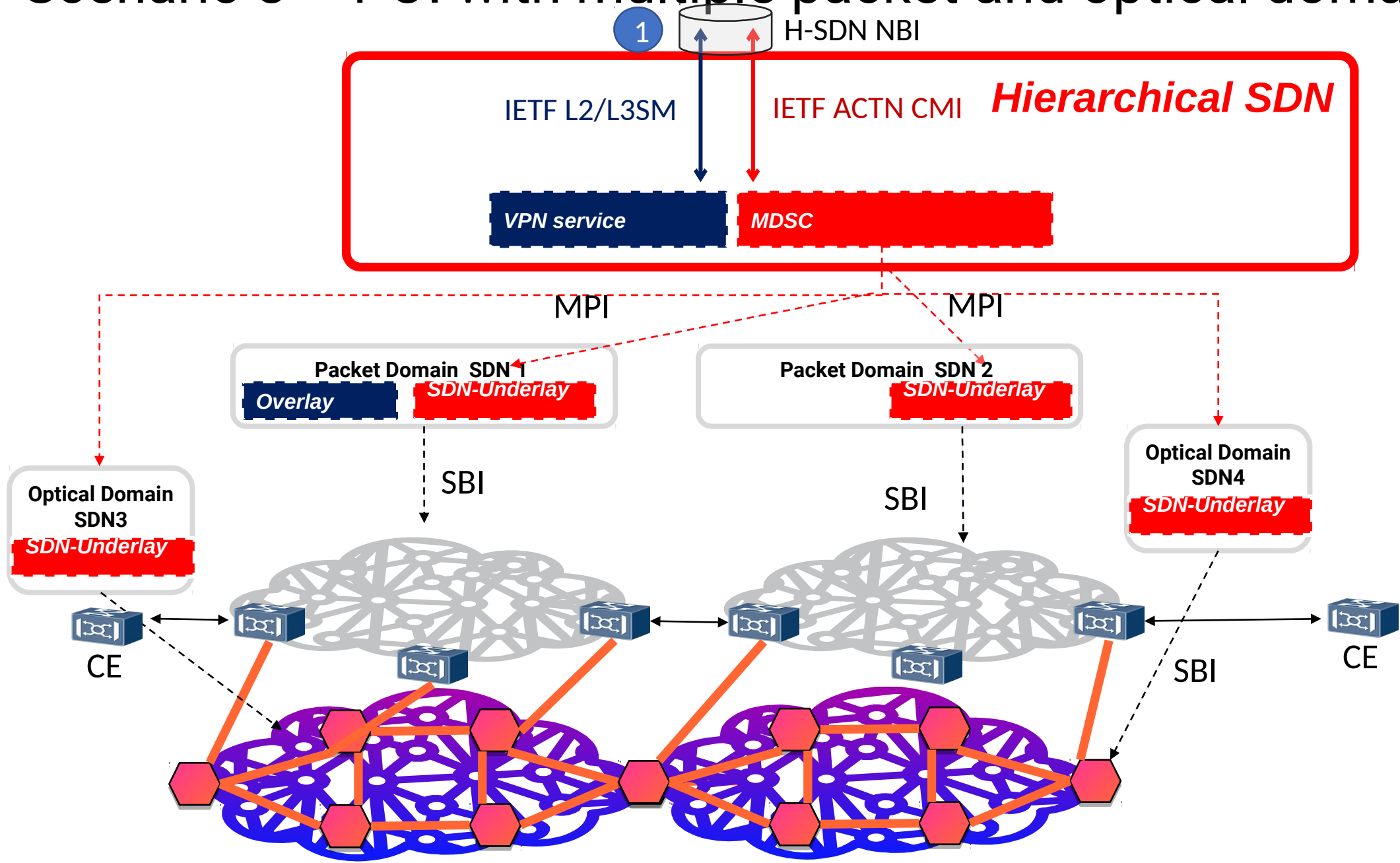
Scenario 1 – POI with single packet and single optical domains



Scenario 2 – POI with multiple packet and single optical domain



Scenario 3 – POI with multiple packet and optical domains



Conclusion & Next steps

- Issues addressed:
 - Applicability of ACTN to VPN with Packet Optical Integration
 - Role of POI in hard isolation scenarios
- Useful document?
- Further topics that need to be addressed/expanded?