

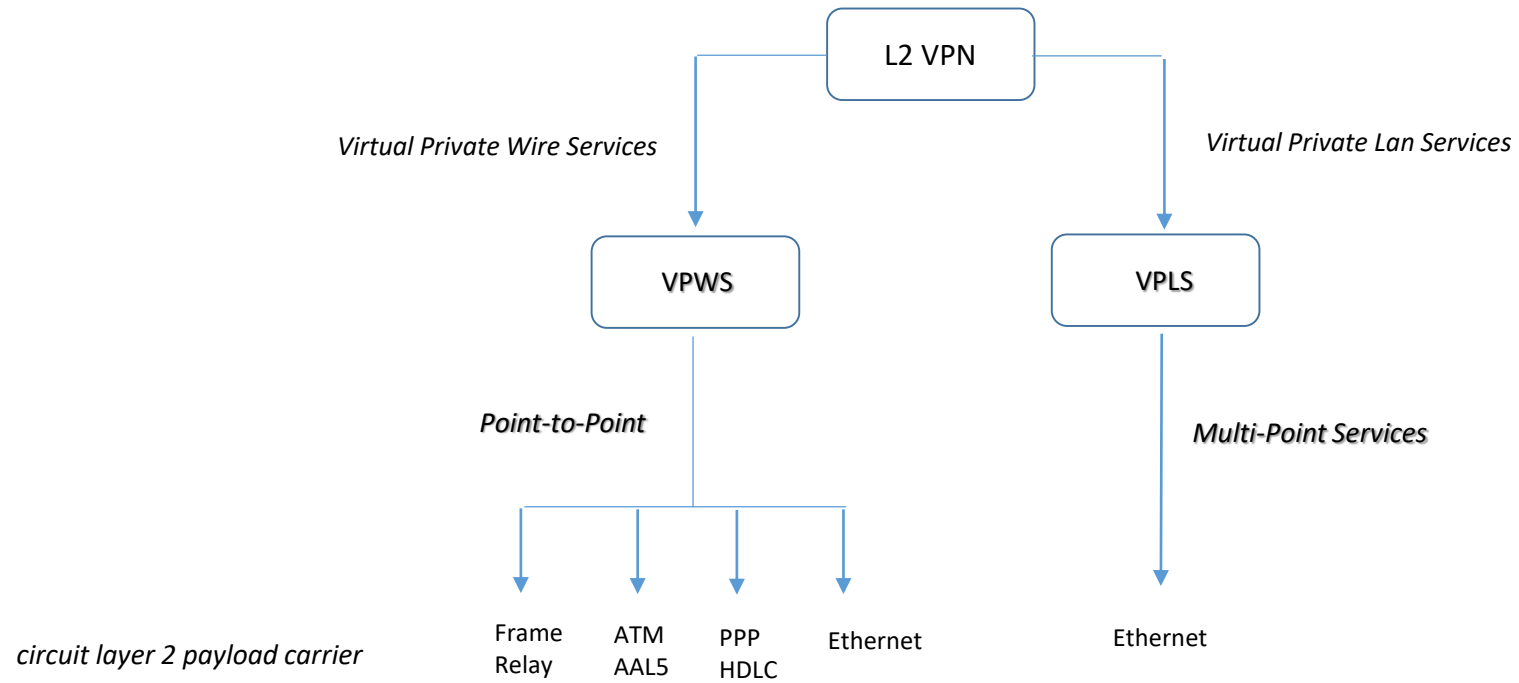
MPLS design

Massimiliano Sbaraglia

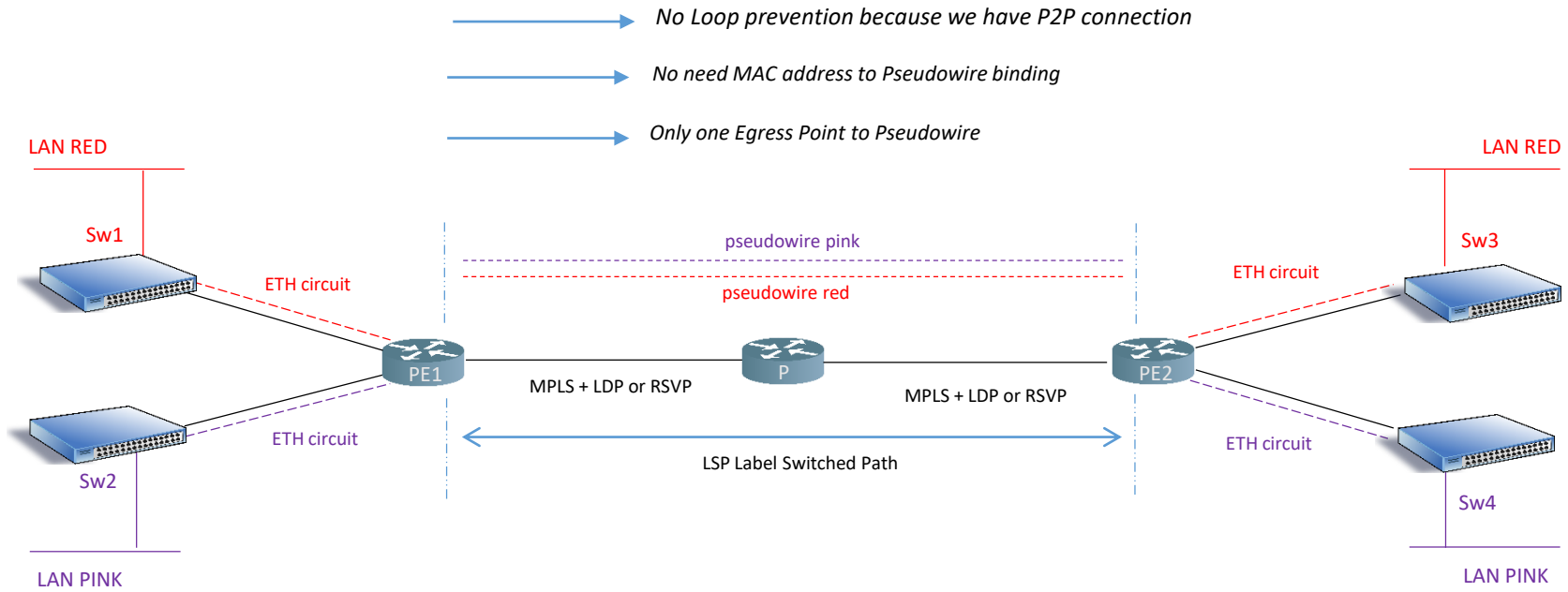
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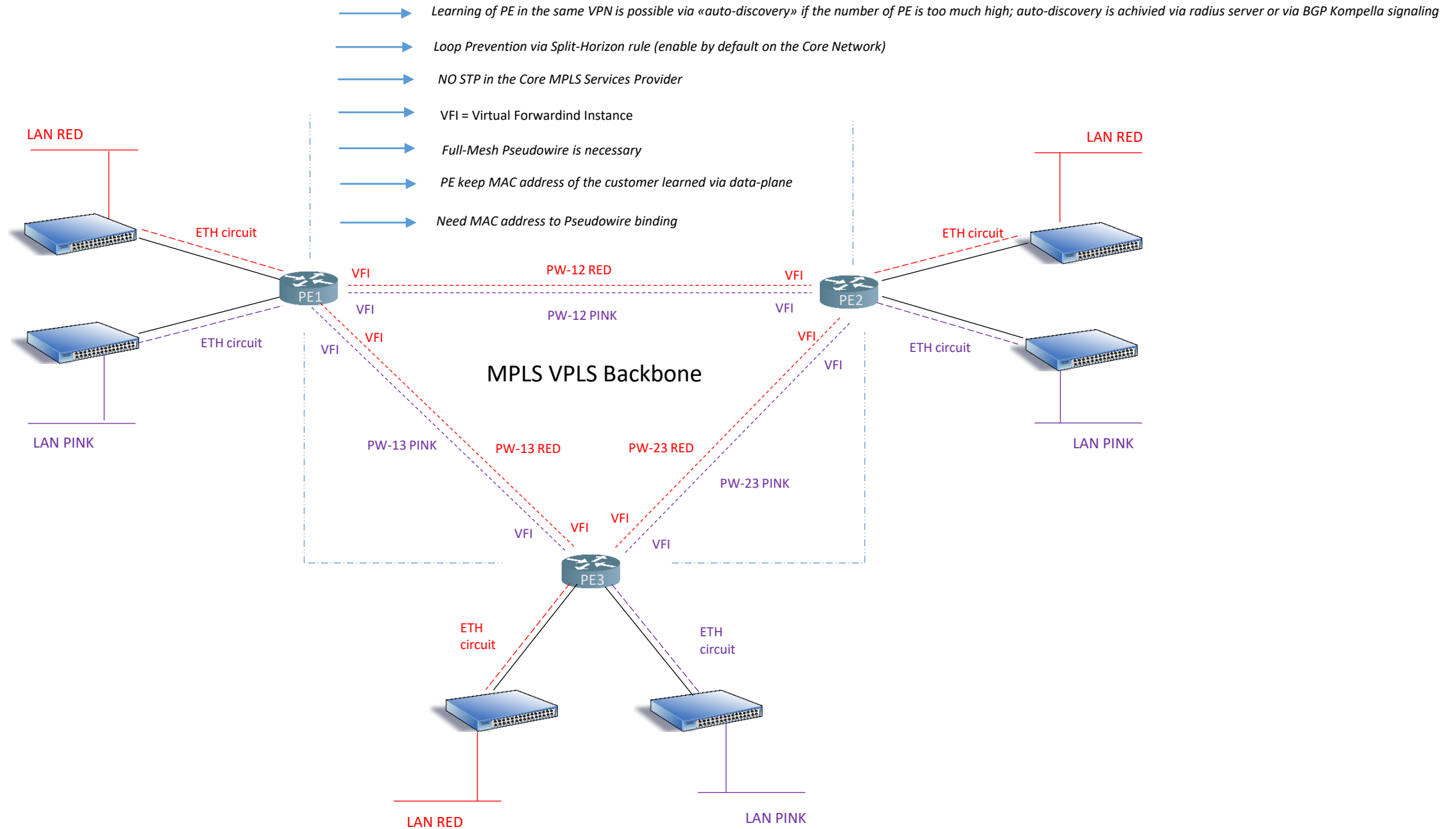
MPLS layer 2 VPN diagram flowchart



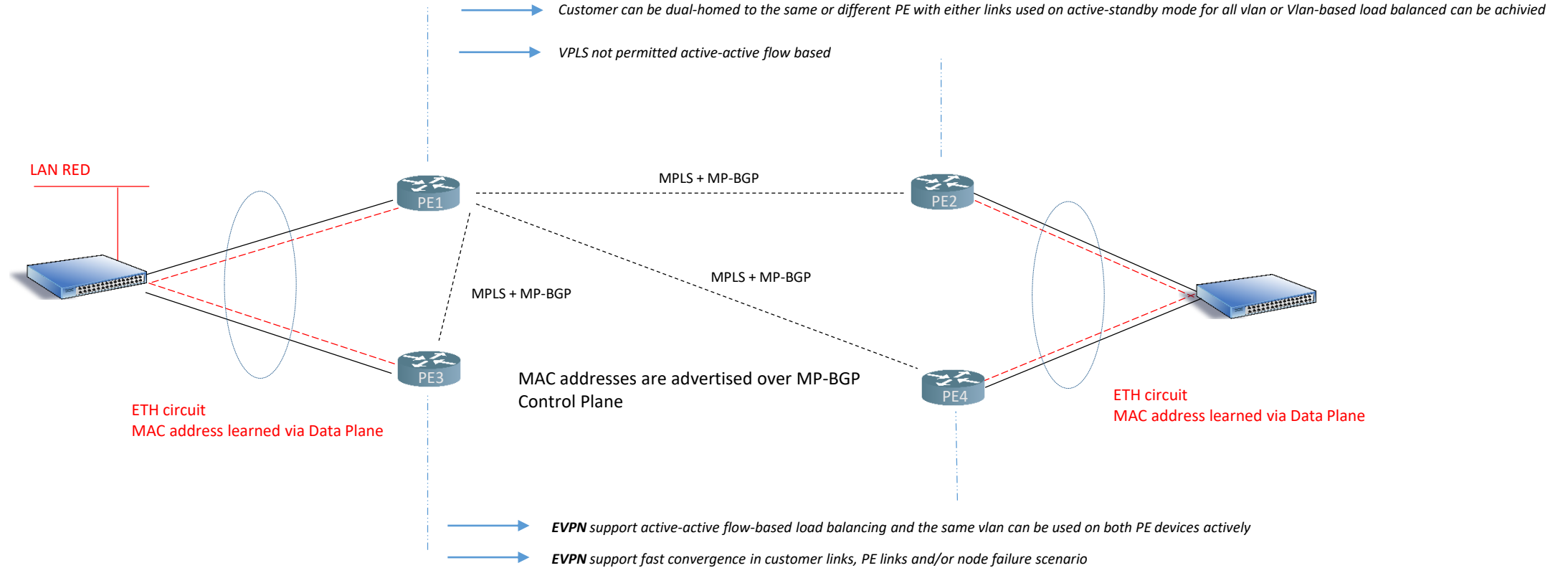
MPLS layer 2 VPN Pseudowire VPWS diagram



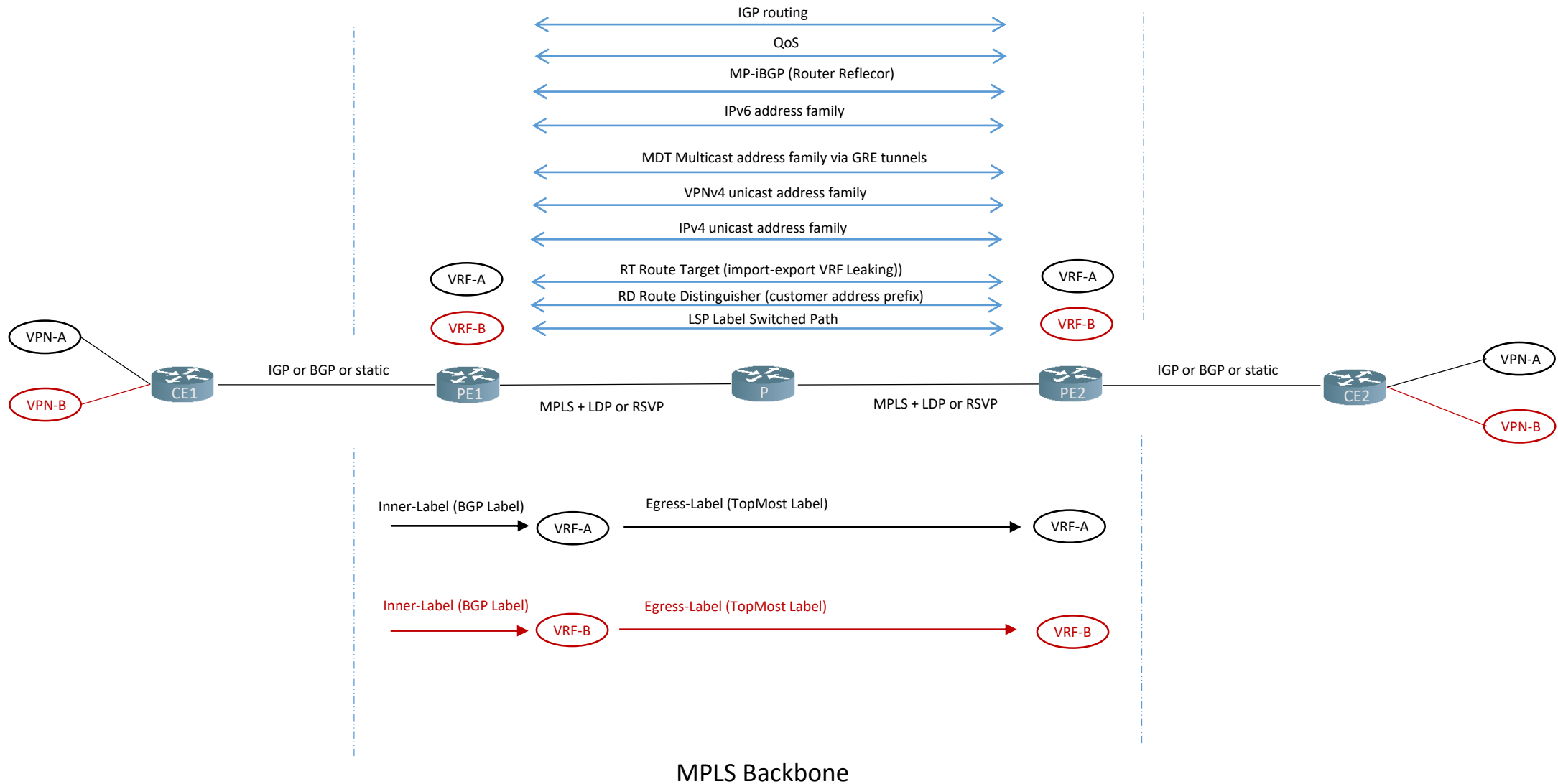
MPLS layer 2 VPN VPLS diagram



MPLS layer 2 EVPN diagram

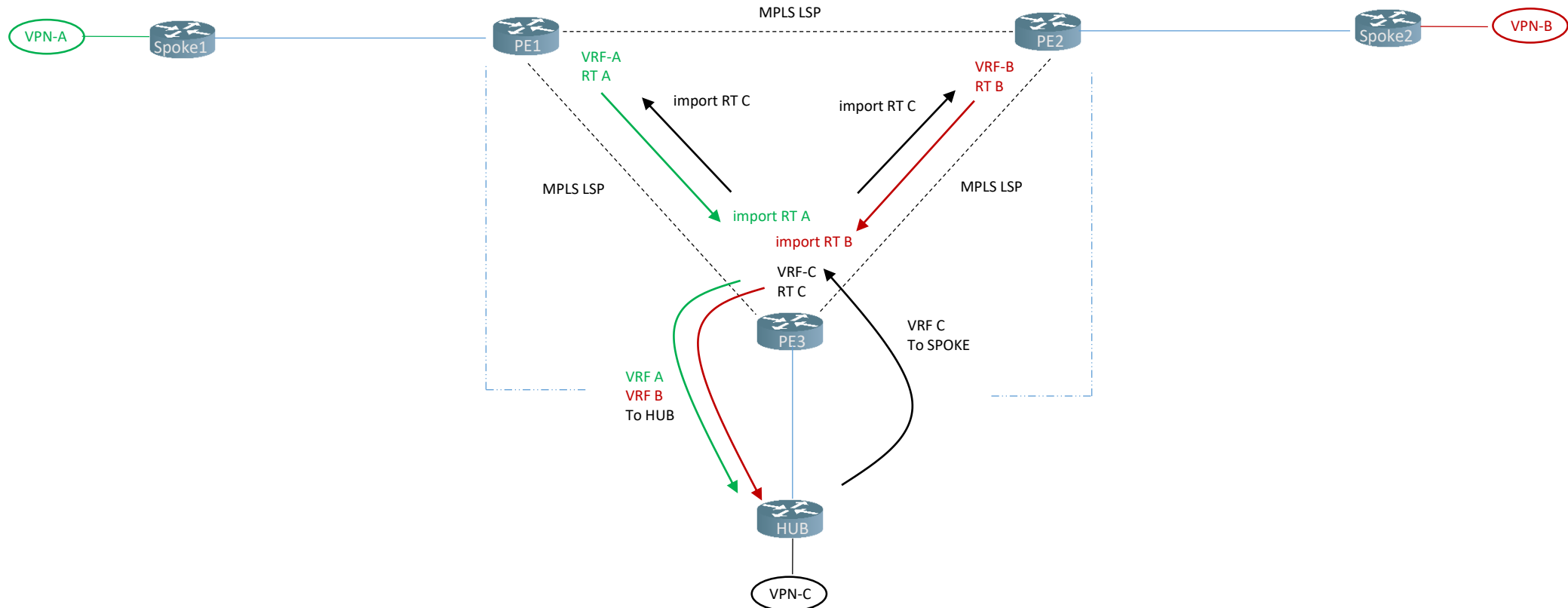


MPLS layer 3 VPN diagram

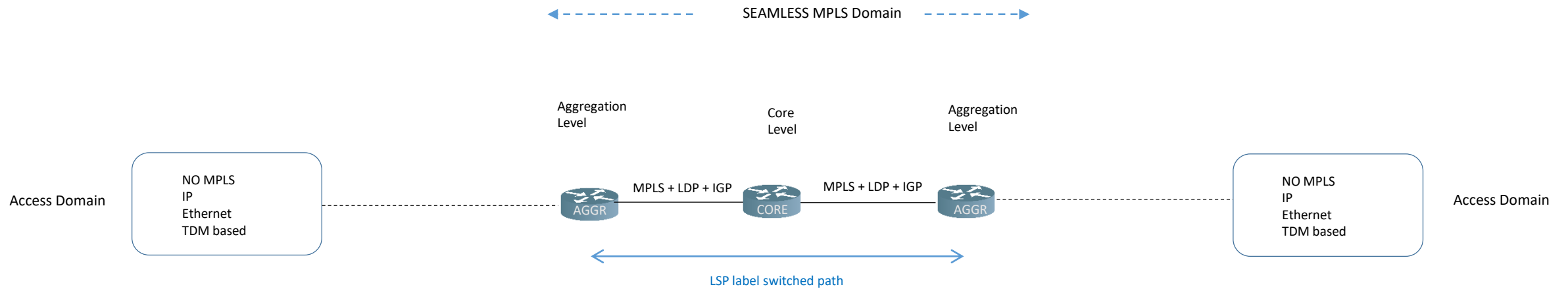


MPLS layer 3 VPN Hub and Spoke diagram

- Spokes imports the Hub RT value but not the other Spokes RT value
- Hub imports all the Spokes RT value
- On Hub and Spoke different RT value are configured

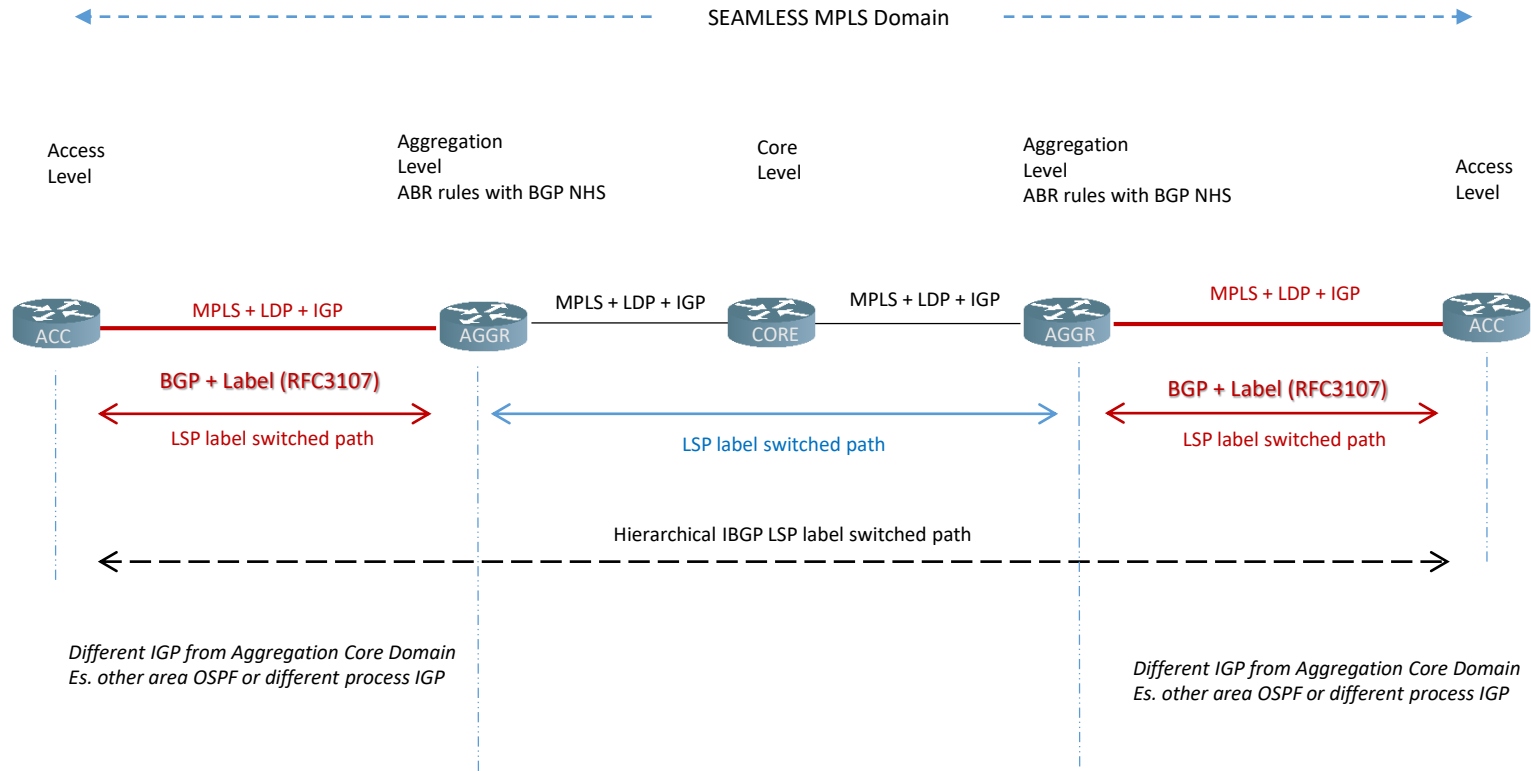


SEAMLESS MPLS model diagram 1



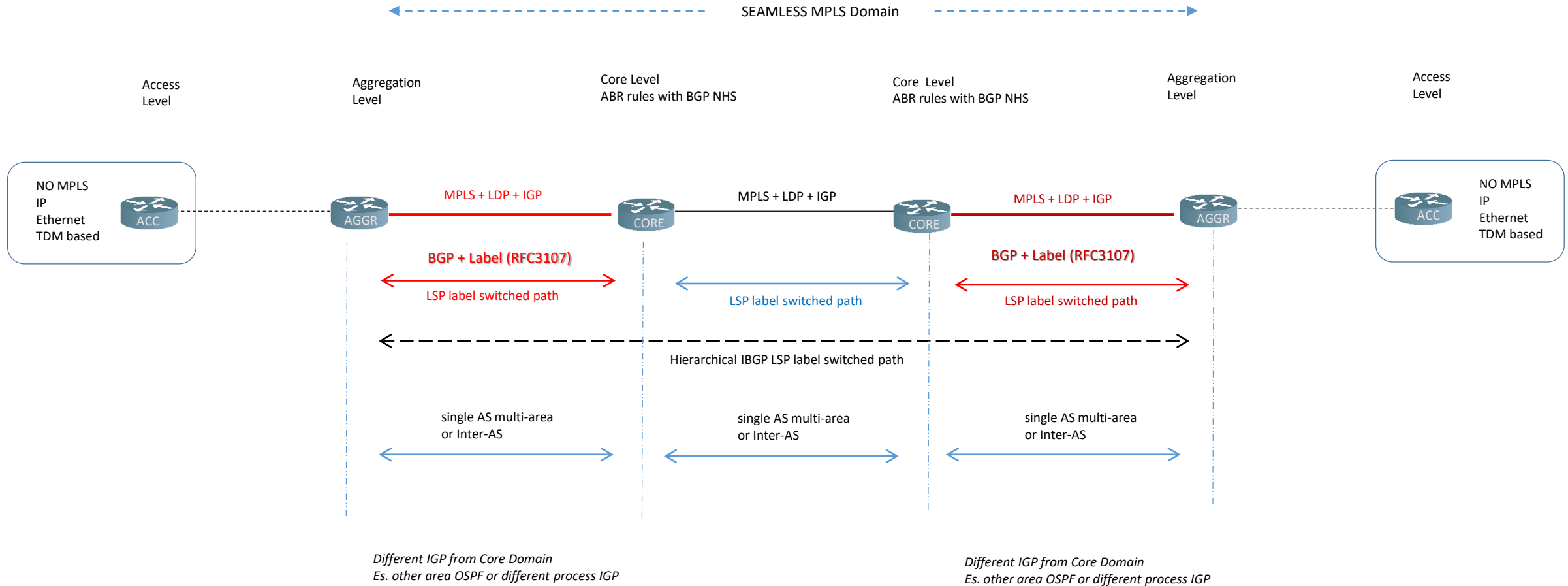
- *With Single AS multi-area Seamless MPLS, IBGP labeled unicast is used to build inter-domain LSP*
- *With Inter AS Seamless MPLS, IBGP labeled unicast is used to build inter-domain LSP inside the AS*
- *EBGP labeled unicast is used to extend the end-to-end LSP across the AS boundary*
- *NO hierarchical BGP LSP (BGP Labeled RFC 3107)*
- *Compatible with small network of core-aggregation node integrated in a single IGP/LDP domain (less than 500 or 1000 nodes)*

SEAMLESS MPLS model diagram 2

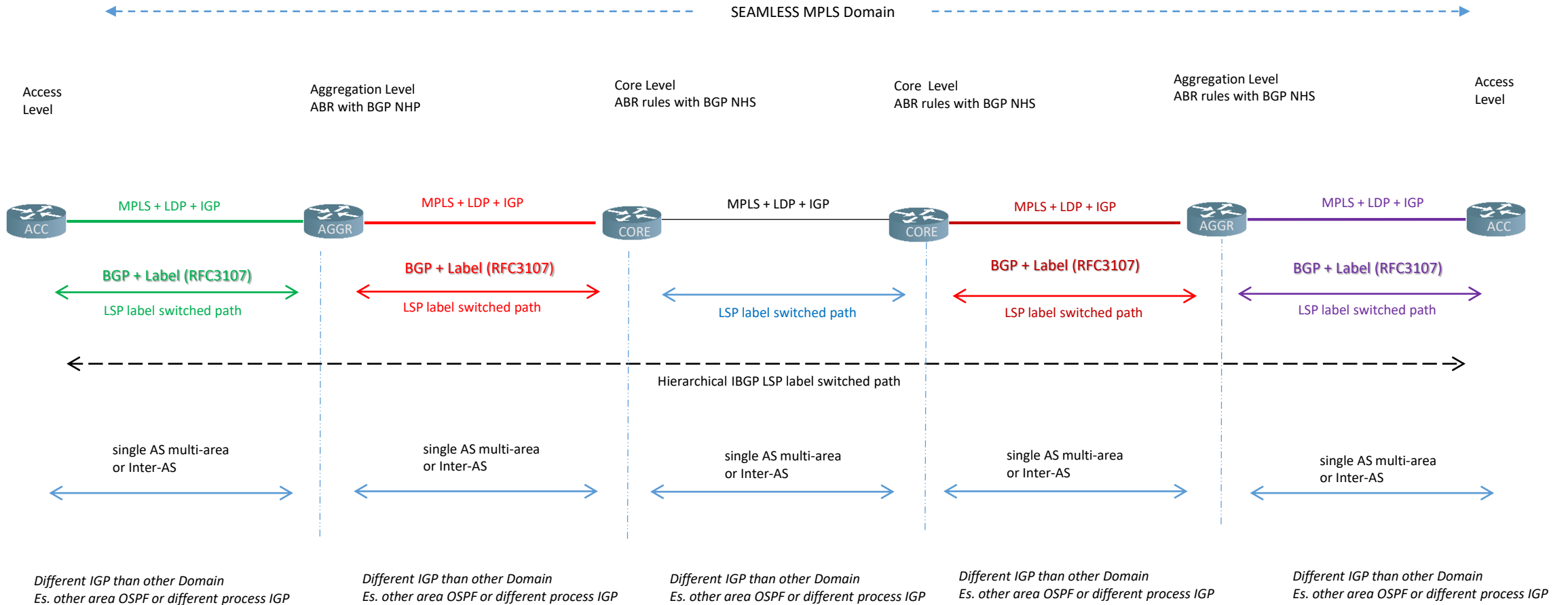


- With Single AS multi-area Seamless MPLS, IBGP labeled unicast is used to build inter-domain LSP
- With Inter AS Seamless MPLS, IBGP labeled unicast is used to build inter-domain LSP inside the AS
- EBGP labeled unicast is used to extend the end-to-end LSP across the AS boundary
- Compatible with small network of core-aggregation node integrated in a single IGP/LDP domain (less than 500 or 1000 nodes)

SEAMLESS MPLS model diagram 3



SEAMLESS MPLS model diagram 4



SEAMLESS MPLS model diagram 5

