EVPN-VPWS Seamless Integration with Legacy VPWS
draft-brissette-bess-evpn-vpws-interop-01

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RFC 8560:

Seamless Integration of Ethernet VPN (EVPN) with Virtual Private LAN Service (VPLS) (...)
- does not apply to VPWS (by definition)
- excludes all-active (explicitly in s 2.6)

draft-sajassi-bess-evpn-vpls-all-active-00:

(PBB-)EVPN Integration with (PBB-)VPLS in All-Active Mode
- addresses the All-Active gap and exclusion above

Gap for VPWS.

Goal of this draft is to address EVPN-VPWS interoperability, for both LDP and BGP-AD
Solution

• PE1 is “Hybrid PE”
  • Discovery phase: advertise **EVPN, LDP, BGP-AD** local endpoint information
  • Capability discovery of each VPWS remote: LDP, BGP-AD, (EVPN)

• PE2 is “Legacy PE”
  • Advertises and discovers to **LDP, BGP-AD**

• All the logic for seamless integration resides on the Hybrid PEs.
  • EVPN-VPWS ‘preferred’ over Legacy PW endpoint
  • The Legacy VPWS matching EVPN-VPWS segment kept operationally down
Migration Legacy PW → EVPN-VPWS/FXC

As straightforward as you would expect

- Legacy-to-Legacy PW
- Hybrid-to-Legacy PW
  - EVPN configured, routes advertised
- Hybrid-to-Hybrid PW:
  - EVPN is preferred;
  - Legacy PW brought down (Label Wdw, Status TLV, etc.)
  - Unconfiguration of legacy PW endpoints now possible
Multi-homing: All-Active

- For PE3 running pseudowire redundancy, PE2 may leverage the existence of standby/backup PW with PE3.
Multi-homing: All-Active

- PE3 backup PW *may not* support disposition on Backup PW
  - Asymmetric forwarding using aliased PW label synchronized between peering PEs