PIM Proxy in EVPN Networks

draft-skr-bess-evpn-pim-proxy-01

Jorge Rabadan (Nokia)
Jayant Kotalwar (Nokia)
Senthil Sathappan (Nokia)
Zhaohui Zhang (Juniper)
Ali Sajassi (Cisco)

IETF100, Nov 2017
Singapore
Why PIM Proxy for EVPN networks

- Need to reduce flooding in an EVPN Broadcast Domains that are used as a “shared-LANs” for PIM routers.
  - Similarly to proxy-ARP/ND and IGMP proxy in EVPN
  - VPLS also supports PIM Proxy

Objectives
1. Reduce/eliminate PIM message flooding in the core and to hosts/non-multicast routers. Focus on Hello and J/P messages.
2. Forward IP multicast streams efficiently.
3. Avoid IP multicast duplication and Assert procedures in the EVPN BD.
4. Provide a fast failover multi-homing solution for PIM routers.
Updates in rev 01

Sections on PIM Dense Mode, Bootstrap and RP discovery removed

Agreement to reuse (and extend) EVPN routes in draft-ietf-bess-evpn-igmp-mld-proxy

- SMET route for PIM proxy is reused from IGMP proxy draft
- IGMP Join Synch route is reused and renamed to IGMP/PIM Join Synch route

Added caveat in the Assert Optimization Procedures for Upstream PEs.

- Sources and non-selected Upstream Neighbors should not share a BD’s AC for a given group
Next steps

The Authors would like to request Working Group Adoption
Thank you