

# MVPN Source Discovery Interoperation

Zhaohui Zhang, Lenny Giuliano  
Stig Vennas, Mankamana Mishra  
IETF105, Montreal

# draft-ietf-bess-mvpn-msdp-sa-interoperation

- MVPN Source Active routes translated into MSDP Source Active
- Ready (in queue) for WGLC
  
- Hold – could we add PFM-SD interoperation as well?

# RFC8364: PFM-SD

- PIM Flooding Mechanism (PFM) and Source Discovery (SD)
  - BSR mechanism extended for flooding of general information
  - For example, for Source Discovery
- FHR uses PFM to flood (s,g) information, and LHRs join (s,g) tree directly
  - FHR encodes its own address as Originator Address in PFM message
    - Each hop uses Originator Address for RPF checking of the PFM message
      - PFM message dropped if not from RPF neighbor
  - (s,g) information encoded as Group Source Holdtime TLV in PFM

# PFM-SD and MVPN-SA

- Like sources learnt via MSDP or PIM Register, sources learnt via PFM-SD could trigger MVPN SA routes
  - Originator Address in PSM-SD encoded in "MVPN SA RP-address Extended Community"
- Like MSDP SA triggered from MVPN SA routes, PFM-SD could be triggered from MVPN SA routes
  - Originator Address in triggered PFM-SD comes from "MVPN SA RP-address Extended Community"

# Some Details

- A source site multi-homed to PE1 & PE2 will trigger multiple MVPN SA routes – from PE1&PE2 respectively – for an SG mapping
  - With the same "MVPN SA RP-address Extended Community" but different RDs
  - A PE3 receiving those multiple MVPN SA routes will only need to trigger one PFM-SD SG mapping
  - Should PE1 trigger PFM-SD SG mapping from the MVPN SA from PE2?
- When a PFM-SD SG mapping times out, the MVPN SA route is withdrawn by its originator
  - When the MVPN SA route is withdrawn, a PE who previously triggered PFM-SD may re-advertise with the holdtime in Group Source Holdtime TLV set to 0

# Plan?

- Option 1
  - Rename “MVPN MSDP SA Interoperation” to “MVPN Source Discovery Interoperation” and include PFM-SD
    - Note: PFM-SD is experimental – is that a concern?
- Option 2
  - Finish “MVPN MSDP SA Interoperation” as is
  - Start a new experimental “MVPN PFM-SD Interoperation” spec