MVPN Source Discovery Interoperation

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- 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- When a PFM-SD SG mapping times out, the MVPN SA route is withdrawn by its originator
  - When the MVPN SA route is withdrawn, a PE who previously triggered PFM-SD may re-advertise with the holdtime in Group Source Holdtime TLV set to 0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