Multicast VPN Using MPLS P2MP and BIER

draft-xie-bier-mvpn-mpls-p2mp-02

Jingrong Xie @Huawei
Mike McBride @Huawei
Mach Chen @Huawei
Liang Geng @China Mobile
Change log

2017.10 //IETF100
- mLDP build P2MP BIER
- RSVP-TE build P2MP BIER
- P2MP BIER forwarding
- Live-Live Protection

2018.03 //IETF101
- mLDP build P2MP BIER
- RSVP-TE build P2MP BIER
- PIM build P2MP BIER(+)
- P2MP BIER forwarding(e)
- Live-Live Protection
- Bypass non-BIER nodes(+)

2018.07 //IETF102
- mLDP build P2MP BIER
- RSVP-TE build P2MP BIER
- P2MP BIER forwarding
- Bypass non-BIER nodes
Target & Benefits

• Existing MVPN using mLDP/RSVP-TE P2MP may suffer from:
  • Overloading states ----by using SPMSI per-flow.
  • Bad Join latency ----because of hop-by-hop SPMSI tree building.

• Benefits from the Standard RFC8296 BIER-encapsulation:
  • Use the existing mLDP/RSVP-TE protocols.
  • Based on the widely supported P2MP forwarding capability.
  • Seamlessly bypass Non-BIER node(s) using P2MP.
Target & Benefits (cont)

- P2MP BIER fwd = P2MP fwd + BitString filtering/pruning.
  - Based on the widely supported P2MP fwd capability.
  - Bypass if BitString filtering/pruning is not supported.
  - Simple & Seamless.
Thank you !