

Multicast LDP extension for hub & spoke multipoint LSP

MPLS IETF82

draft-jin-jounay-mpls-mldp-hsmp-04

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Update

- Have presentation on IETF79 Beijing meeting.
- Update section 2: Application.

Applications

1. Time synchronization based on [IEEE1588v2].
2. Typical IPTV scenario could use HSMP LSP for multicast.
3. P2MP PW with reverse path can multiplex to HSMP LSP.
4. Newly added application:
 - VPLS implementation with P2MP PW multiplexed to HSMP LSP.

Applications (cont)

- VPLS implementation scenario:
 - Each P2MP PW is multiplexed to HSMP LSP.
 - Each PE signals a P2MP PW with itself as a root to all other PEs in the VPLS.
 - All broadcast/multicast/unknown traffic from this PE will use this P2MP PW.
 - Unicast traffic from a particular PE to another PE will be sent from leaf to root using the reverse path of P2MP PW.
 - Advantage:
 - Reducing traffic utilization from broadcast, multicast and unknown traffic;
 - Reducing the total number of LSPs maintained by each PE (i.e. instead of requiring a full mesh of PW, now only require one P2MP PW multiplexed to HSMP per PE).

Next steps

- Ask WG to adopt this draft.

Thank you