

# MLDP Signaling over BIER

## Draft-hb-bier-mldp-signaling-over-bier-01

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# mLDP Signaling over BIER Refresher

- Use TLDP as per RFC 7060 to signal mLDP over BIER
- These procedures can be used for point-to-multipoint and multipoint-to-multipoint LSPs established via mLDP RFC 6388
- TLDP sessions between BIER edge routers and is used for signaling mLDP FEC over a BIER domain
- TLDP can be pre-established manually or initiated automatically on the IBBR

# IBBR Procedure

- HAS a Targeted LDP established with EBBR closest to the ROOT of the FEC
- In case of a recursive FEC the ROOT is the Outer ROOT in the FEC
- Added ECMP procedures on IBBR. Establishing T-LDP to EBBR base on a hashing algorithm per <Root, Opaque> on IBBR.

# EBBR Procedures

- Provides an upstream assigned label for arriving FEC over T-LDP and advertises it to the IBBR
- The label assigned by EBBR can't be Implicit Null, to ensure identity of each P2MP/MP2MP tunnel in BIER domain is unique
- The labels can be assigned from a domain-wide Common Block (DCB) as per [ID.zzhang-bess-mvpn-evpn-aggregation-label]
- The interface ID TLV [RFC6389] includes a new BIER sub-domain sub-tlv (type TBD)
- EBBR should track all arriving FECs and use the information to build the BIER Header for each set of common FECs.

# Datapath Traffic Flow

- On BFIR when the MPLS label for P2MP/MP2MP LSP arrives from the source, a lookup in ILM table is performed and label is swapped with tLDP upstream assigned label.
- The BFIR will build the BIER Header based on all the BFER that are interested in this P2MP/MP2MP FEC.
- BFIR will set the BIERHeader.Proto = MPLS and forward the packet into Bier domain
- On BFER, based on the BIERHeader.Proto the BIER header will be removed and a lookup in the ILM for the upstream assigned label is performed the corresponding action is executed.
- It should be noted as that BFIR and BFER can be ILER and ELER respectively.

## Next Steps

- Asking for WG adaptation