The BIER BFD
IETF 104 Prague
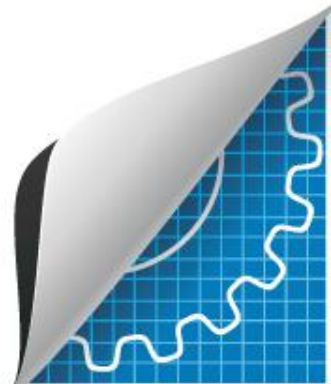
draft-hu-bier-bfd-03

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Update from last version

- <draft-hu-bier-bfd-03>
    - ✓Carry the BFD discriminator TLV in BIER OAM TLV to bootstrap the BIER BFD in data plane
    - ✓Extend the IGP protocol to bootstrap the BIER BFD in control plane

BIER BFD

- ➤ BIER BFD is based on [draft-ietf-bfd-multipoint]
  - ➤ Uses Demand mode (defined in RFC 5880) – no three-way handshake

- ➤ BIER BFD encapsulation use BIER OAM ping [draf-ietf-bier-ping].
  - ➤ Msg Type field MUST be set to BIER BFD (TBD by IANA)
  - ➤ BFD Control packet (defined in RFC5880) immediately follows the BIER OAM header

- ➤ BIER BFD Session Establishment
  - ➤ BIER OAM Ping Bootstrapping
  - ➤ IGP protocol Bootstrapping

- ➤ BFERs use source address and My discriminator to demultiplex BFD sessions：
  - ➤ BFIR-id and BIER MPLS Label(MPLS network)
 - ➤ BFIR-id and BIFT-id(Non-MPLS network)
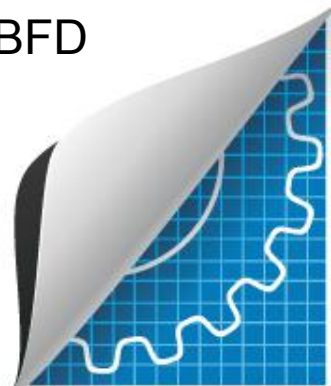
Bootstrap the BIER BFD Session

➢ Multi-hop Bootstrapping
  ➢ Use BIER OAM Ping Echo request message
  ➢ Carry BFD discriminator TLV which contains the local discriminator generated by BFIR for this session

➢ IGP protocol Bootstrapping
  ➢ Use IS-IS and OSPF capaiblity advertisement
  ➢ Extend the BIER BFD Sub-TLV which contains the local discriminator generated by BFIR for this session and the BFERs information

➢ BIER Overlay Bootstrapping
  ➢ TBA

BIER BFD Session Establishment
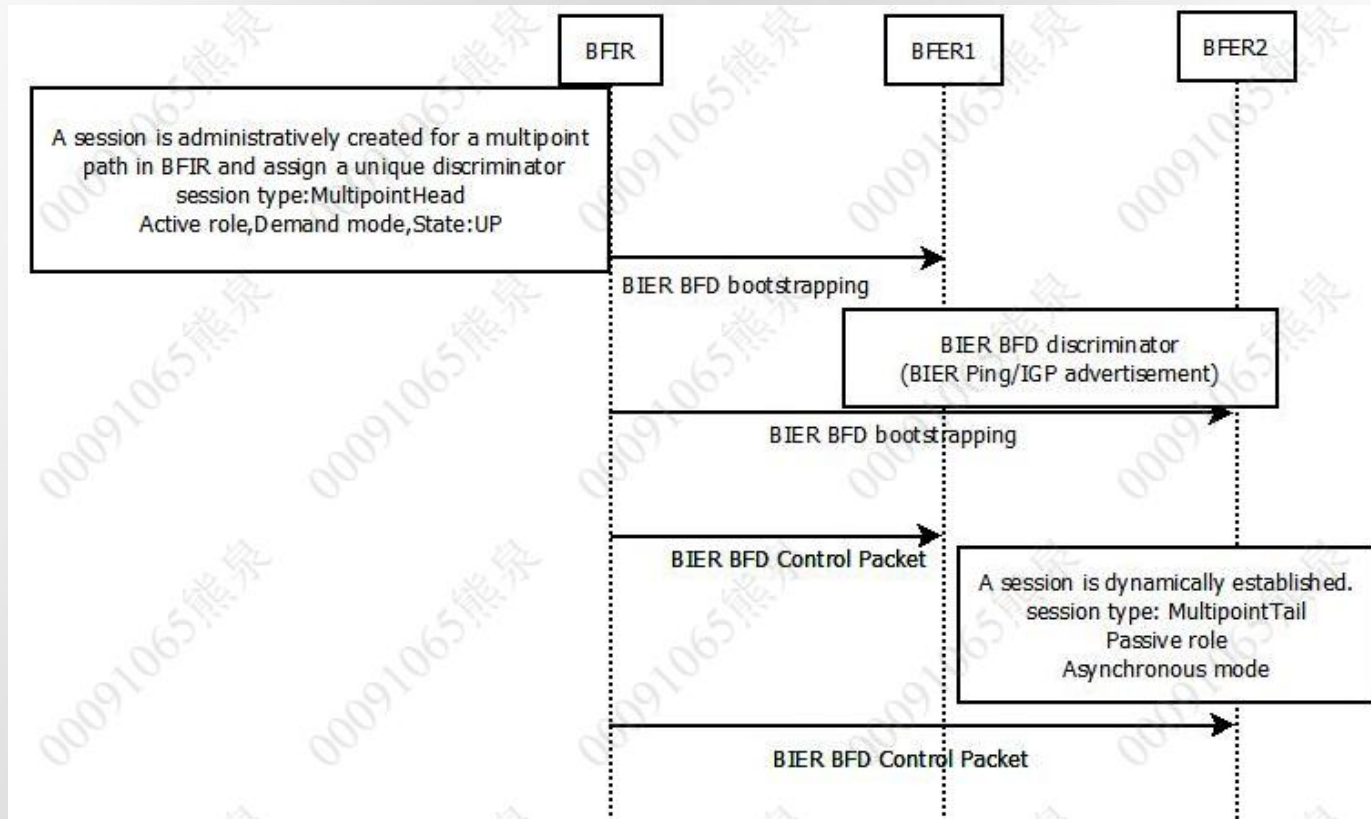
> BFD discriminator TLV
> BIER BFD Sub-TLV

Next Step

- Further work:
  - BIER overlay extensions for BIER BFD bootstrapping.
  - Adjustment based on the update of demand mode procedure in P2MP BFD [draft-ietf-bfd-multipoint].

- Comments and discussion

Thank you!