Extensions for BIER-TE with MPLS and non-MPLS Encapsulation
draft-zwx-bier-te-extensions
Background

• draft-ietf-bier-te-arch:
  • BIER-TE replaces in-network autonomous path calculation by explicit paths calculated offpath by the BIER-TE controller host.
  • In BIER-TE every BitPosition of the BitString of a BIER-TE packet indicates one or more adjacencies - instead of a BFER as in BIER.
  • BIER-TE in each BFR has no routing table but only a BIER-TE Forwarding Table (BIFT) and populated with only those adjacencies to which the BFR should replicate packets to.

All the BIER encapsulation methods apply to BIER-TE:
• MPLS
• Ethernet
• BIERin6
BIER-TE (Tree Engineering for Bit Index Explicit Replication)

- The composition of BitString is the link BP.
- The forwarding table seems like BIER, but it's different.
- The BIFT-id field indicates the BIFT of the packet.
The advertisement of draft-zwx-bier-te-isis-extensions, draft-zwx-bier-te-ospf-extensions, draft-zwx-bier-te-ospfv3-extensions works, but it does not work well in case there are many BPs need to be advertised.

- The BIFT-id is advertised associated with selected prefix.
- The BIFT-id is allocated per SD:BSL.
- The advertisement of IS-IS, OSPF and OSPFv3 are similar.

**BIFT-id signaling**

- BIFT-id signaling
- BIER-TE encapsulation sub-tlv
- MPLS/non-MPLS encapsulation sub-sub-tlv
• Any comments 😊

• Thanks!