An Optional Encoding of the BIFT-id Field in the non-MPLS BIER Encapsulation

draft-wijnandsexu-bier-non-mpls-bift-encoding-00
Background/History

• We have had a long discussion around encapsulation
  MPLS labels vs Ethernet encoding
  Decoupling Sub-Domain, Set Identifier, BSL from BIFT-id.
  Static vs Dynamic BIFT-id's.

• Main goal, have a shared encoding between MPLS and non-MPLS encoding.

• We succeeded in having a shared encapsulation (draft-ietf-bier-mpls-encapsulation-12)!

• No need to rehash that discussion!
Open issues

• Xiaohu has expressed (from day one) the desire to have static allocated BIFT-id’s.

• We have had lively discussions around that topic.

• The main reason to avoid static BIFT-id’s it to prevent the data-plane from being aware of the BIFT arguments, like Sub-Domain, SI, BSL (others in the future).

• In this draft we’re defining a method to create a static BIFT, without the data-plane to be aware.
Static BIFT-id encoding

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|   BSL  |    SD    |    SI    |  TC  |   S   |    TTL    |
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|---------- 20 bit BIFT-id Field ----------|

• The BIFT-id is 20 bits.
• We overload this BIFT-id field and carve out space for: BSL, SD and SI.
• For the data-pane, this remains a 20 bit value!!!
• Data-plane MUST never parse this field.
Static BIFT-id benefits

• No need to advertise BIFT-id to \{SD, SI, BSL\} mapping.
• The BIFT-id is globally unique.
  Easier to troubleshoot.
Informational draft

• The reason to document this encoding is to make sure different vendors are interoperable.
• There is no IANA action required.
• This is an informational draft
Questions?