draft-psenak-ospf-bier-extensions-01.txt

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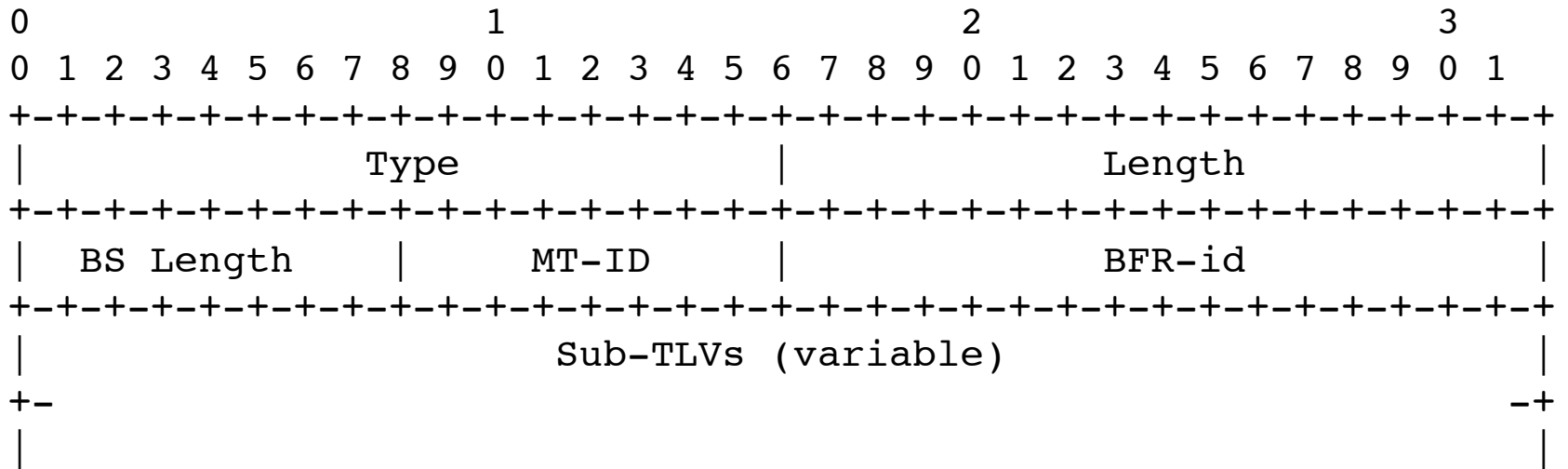T. Przygienda- Ericsson
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BFR Prefix

- Unique (within a given BIER domain), routable IP address that is assign to each BIER router
- All the BIER specific information that a BIER router needs to advertise to other BIER routers are associated with the BFR-Prefix
- OSPF Extended Prefix Opaque LSA is used to flood BIER related information
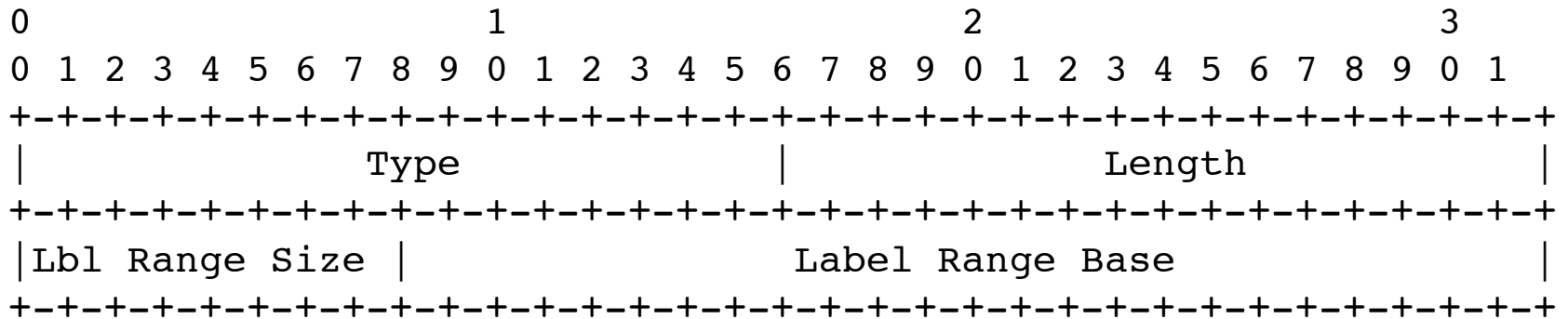
BIER Sub-TLV

- Sub-TLV of the Extended Prefix TLV
  - ietf-ospf-prefix-link-attr
- Multiple BIER Sub-TLVs may be included

```
 0                   1                   2                   3
 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|             Type              |            Length             |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|   BS Length   |     MT-ID     |           BFR-id              |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|                     Sub-TLVs (variable)                       |
+-                                                             -+
|                                                               |
```

BIER MPLS Encapsulation Sub-TLV

- sub-TLV of the BIER Sub-TLV
- advertises MPLS specific information used for BIER

```
 0                   1                   2                   3
 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|              Type             |             Length            |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|Lbl Range Size |             Label Range Base                 |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

BIER info flooding

- OSPF Extended Prefix Opaque LSA

- Propagated between areas

- Propagation follows the generation of Type-3 LSAs for the BIER prefix
  - prevents looping of BIER info between areas

- BIER info is flooded to stub, NSSA areas similar to Type-3 LSAs

Status

- Initial version of the draft
- Work in progress
- Please provide comments on the list