GMPLS OSPF-TE Extensions in support of Flexible Grid

CCAMP WG, IETF 93rd, Prague

draft-ietf-ccamp-flexible-grid-ospf-ext-02.txt

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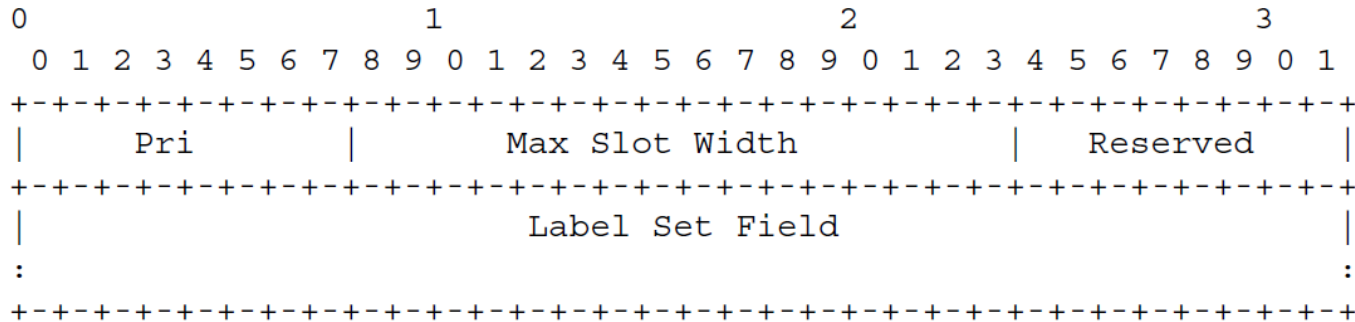Haomian Zheng (zhenghaomian@huawei.com)

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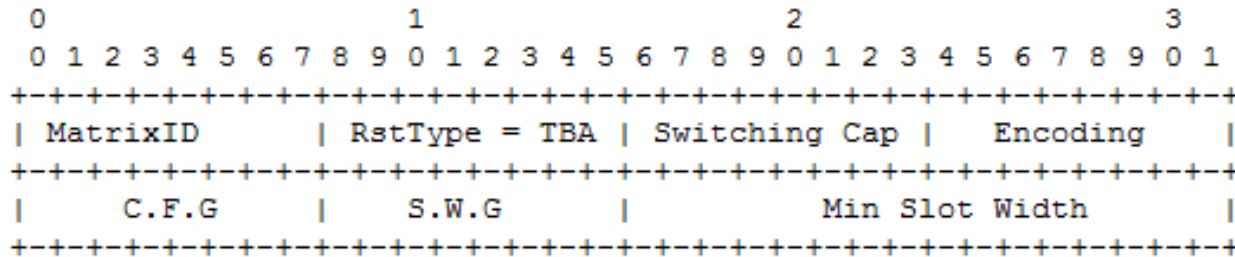
Changes from Previous Version

- Per-priority Issue Addressed:
  - No need to define per-priority min slot width, only need to deal with
  - New 'Available Resource Sub-TLV' Defined in Section 4.3, to describe per-priority Max Slot Width

```
 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
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|      Pri      |        Max Slot Width       |    Reserved    |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|                         Label Set Field                      |
:                                                              :
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

  - Pri: indicate priority information;
  - Max Slot Width: A positive integer. Its value indicates the multiple of 12.5 GHz in terms of the supported maximal slot width.
  - This sub-TLV addressed the per-priority Max Slot Width Issue;

Changes from Previous Version

- Changes in Port Label Restriction sub-TLV:

```
 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
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| MatrixID      | RstType = TBA | Switching Cap |   Encoding    |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|    C.F.G      |    S.W.G      |          Min Slot Width        |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

  - Max Slot Width removed from port-label restriction TLV;
  - Make the format consistent with [GEN-ENCODE];
- ISCD: Described the max LSP bandwidth per priority;
  - Max LSP bandwidth: encoded as 4-oct fields in IEEE floating number, can be obtained from max slot width and modulation scheme;
- Changed the min slot width to 16 bits as discussed, to satisfy the requirement of covering the whole C-band;
- Moved from 'informational' to 'standard track';

Status and Next Step

- All issues raised on list have been addressed;
- No Pending Issue from authors;
- Implementation Status:
  - Centre Tecnologic de Telecomunicacions de Catalunya (CTTC)
  - Further interoperable implementation known in IDEALIST project;
- Request for WG Last Call immediately after IETF93