IGP Flexible Algorithm with L2bundles

draft-peng-lsr-flex-algo-l2bundles-05

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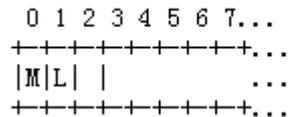
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Motivation

- This document describes how to create Flex-algo with L2bundles scenario.

IGP L2 Bundle Member Extensions

- ISIS L2 Bundle Member EAG advertisement
  - "Administrative group (color) Sub-TLV" and "Extended Administrative Group Sub-TLV" MAY be contained in ISIS TLV-25
  - Advertise multiple L2 Bundle Attribute **Descriptor** with each specify a single bundle member.
- OSPF L2 Bundle Member EAG advertisement
  - "Administrative group (color) Sub-TLV" and "Extended Administrative Group Sub-TLV" MAY be contained in "L2 Bundle Member Attributes sub-TLV" .
  - Advertise "L2 Bundle Member Attributes sub-TLV" per L2 Bundle Member.
- FAD Flags Extensions
  - Extend a new flag (L-flag) of ISIS FAD Flags Sub-TLV and OSPF FAD Flags Sub-TLV to let each node to check L2 member link resource of interface bundle during flex-algorithm path calculation.

```
 0 1 2 3 4 5 6 7...
+-+-+-+-+-+-+-+-+...
|M|L| |          ...
+-+-+-+-+-+-+-+-+...
```

Status/History

- Submit the version -00 in December 2019
- Update in -01 version
  - Remove L2 Bundle Member EAG Extension.
  - Use L2 Bundle Member Attributes TLV/sub-TLV with traditional "Administrative group (color) Sub-TLV" and "Extended Administrative Group Sub-TLV" (RFC8668) based on discussions on LSR mailist.
- Update in -03 and -04 version
  - Add the **Flex-algo L2bundles Use-cases**
  - Add the **FAD Flags Extensions**
- Update in -05 version
  - Add co-author Yongqing
  - Some editorial changes
- **The mechanism is stable since -04 version**

Next Step

- Comments welcome

- WG adoption ☺️

Thanks!