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IDR Working Group – Interim Meeting

draft-ketant-idr-bgp-ls-app-specific-attr

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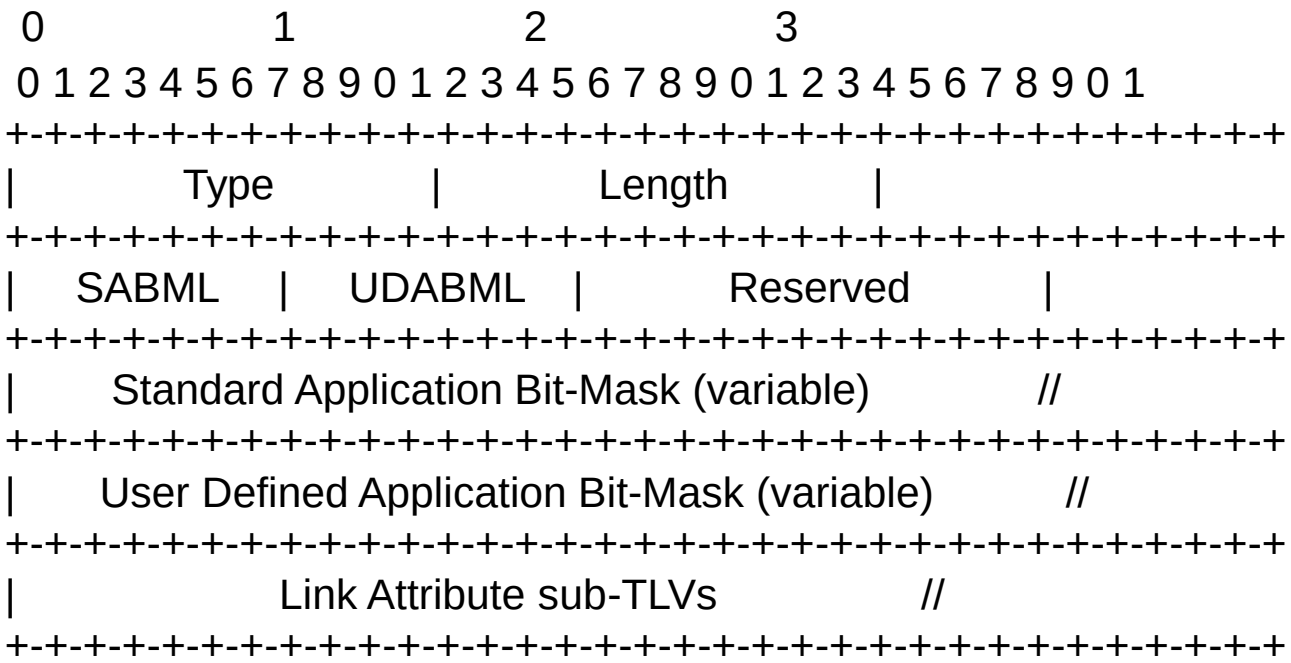
Overview

- BGP LS extension for IGP drafts:
  - ietf-isis-te-app
  - Ietf-ospf-te-link-attr-reuse
- Allows link attributes to be signaled on a per application basis
- Applications:
  - RSVP TE, SRTE, LFA, Flex-Algo, …
- ASLA (application Specific Link Attributes) TLV defined in both IGPs

ASLA TLV Format

- **BGP-LS**
  - **new optional top-level BGP-LS Attribute TLV for link NLRIs**
  - **Application Specific Link Attributes TLV (ASLA TLV)**



Re-use of Existing TLVs for link attributes

- defined for RSVP-TE and GMPLS may have application specific
- some have application specific semantics
- Existing TLVs and code-points are used as Sub-TLVs in ASLA TLV
- Draft identifies the list of application specific link attributes (in sync with underlying IGP specifications)

Procedures

- Application specific link attributes received from an IGP node using existing RSVP-TE/GMPLS encodings
  - Encoded using the respective BGP-LS top-level TLVs (unchanged)
- Application specific link attributes received from an IGP node within its ASLA sub-TLV
  - encoded in the BGP-LS ASLA TLV as sub-TLVs with the application bitmask set.

Procedures – compatibility mode

- Compatibility mode (enabled by default) for existing applications (RSVP-TE, SRTE)

- Application specific link attribute received in IGP ASLA sub-TLVs, corresponding to RSVP-TE or SR applications
  - encoded in the BGP-LS ASLA TLV as sub-TLVs
  - also encoded in their existing top level TLVs (as done previously)

Next Step

- WG adoption