

IGP Extensions for SR Slice Aggregate SIDs

draft-bestbar-lsr-spring-sa-00

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Agenda

Overview

IGP Extensions

Next steps

Overview

[I-D.bestbar-teas-ns-packet-02] introduces the following:

- **Slice Policy:**
Enables the instantiation of mechanisms in support of IETF network slices that results in the creation of a slice aggregate
- **Slice aggregate:**
A collection of packets that match a slice selection criteria and are given the same forwarding treatment

[I-D.bestbar-spring-scalable-ns-00] describes one solution to allocate per Slice Aggregate SR SIDs per topological element:

- Packets forwarded with Slice Aggregate SIDs are offered the specific Slice Aggregate forwarding treatment along the IGP path

Slice Aggregate Prefix-SID Sub-TLV

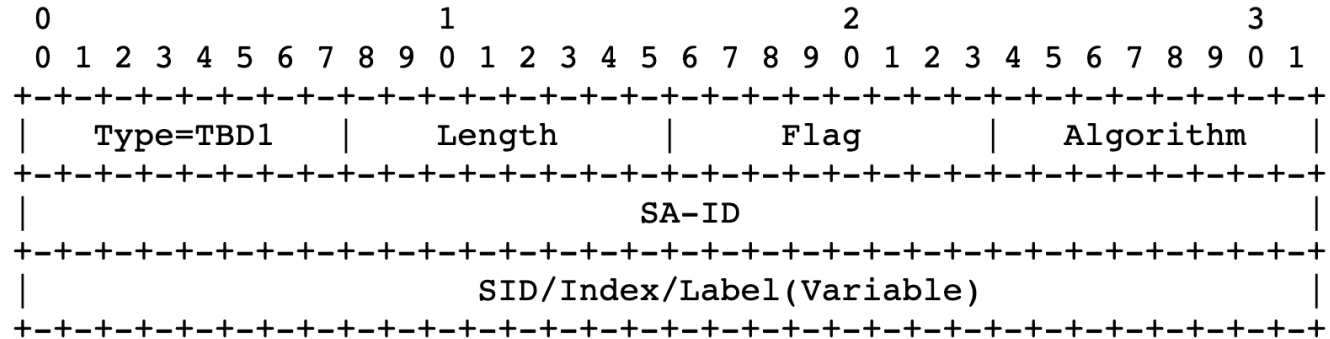


Figure 1: SA Prefix-SID sub-TLV for SR-MPLS.

- Slice Aggregate Prefix-SIDs for the same Prefix (and same Topology/Algorithm) share the same IGP computed (primary/backup) path
 - They offer the forwarding treatment associated with the Slice Aggregate
 - The forwarding treatment is defined in the Slice Policy as described in [I-D.draft-bestbar-teas-ns-packet]

Slice Aggregate Adjacency-SID Sub-TLV

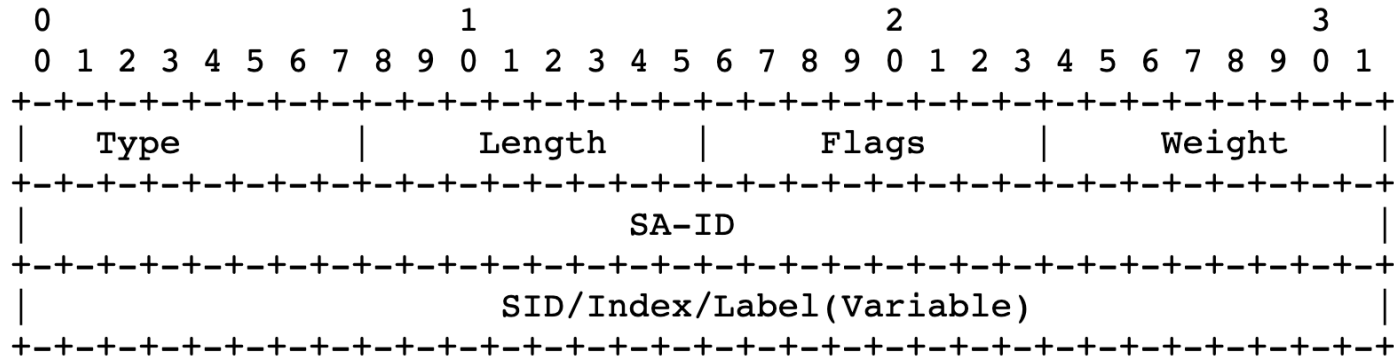


Figure 2: SA Adj-SID sub-TLV for SR-MPLS.

- Slice Aggregate Adjacency-SIDs are attached to the IGP adjacency:
 - Offer the forwarding treatment associated with the Slice Aggregate
 - The forwarding treatment is defined in the Slice Policy as described in I-D: draft-bestbar-teas-ns-packet
- IS-IS Slice Aggregate LAN Adjacency-SID in draft not mentioned for brevity

SRv6 SID Slice Aggregate Sub-Sub-TLV

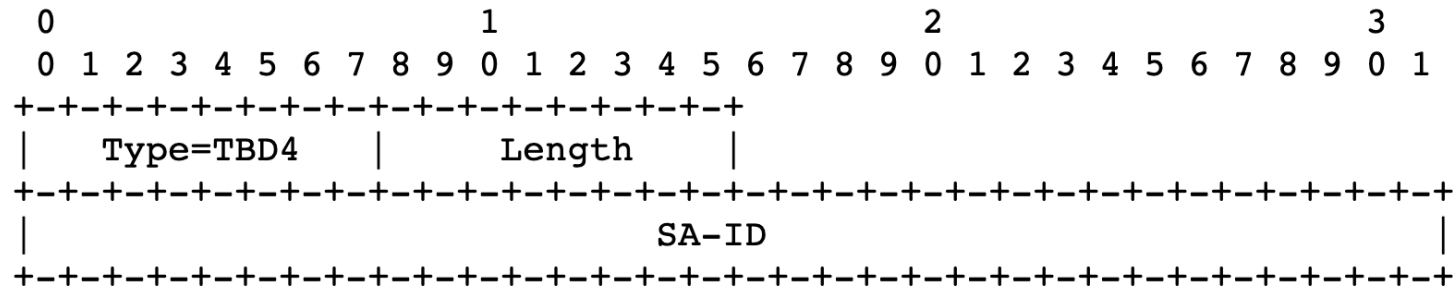


Figure 4: SRv6 SID SA Sub-Sub-TLV format for SRv6.

- The SRv6 End SID sub-TLV defined in [I-D.ietf-lsr-isis-srv6-extensions] carries optional sub-sub-TLVs
- New SRv6 SID SA Sub-Sub-TLV carried in the SRv6 End SID sub-TLV
 - Associates the End SID to the specific Slice Aggregate resources/forwarding treatment

Next Steps

- This is the initial version of the I-D
- New extension for OSPF will be added
- We welcome reviews from the WG and feedback