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

![Sub-TLV Diagram](image)

**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

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

• 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