Advertising SRv6 SIDs for Layer 2 Bundle Member Links in IGP

draft-dong-lsr-l2bundle-srv6

Jie Dong, Zhibo Hu @Huawei

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Background

- When there are parallel links between two neighbors, layer-2 interface bundle can reduce the number of adjacencies that need to be maintained by the routing protocol

- External entities may want to control flows on individual members of the Layer-2 bundle

- [RFC8668] and [RFC9356] specify the IGP extensions to advertise link attribute information for each of the L2 Bundle members, including the SR-MPLS Adjacency SIDs of the bundle member links

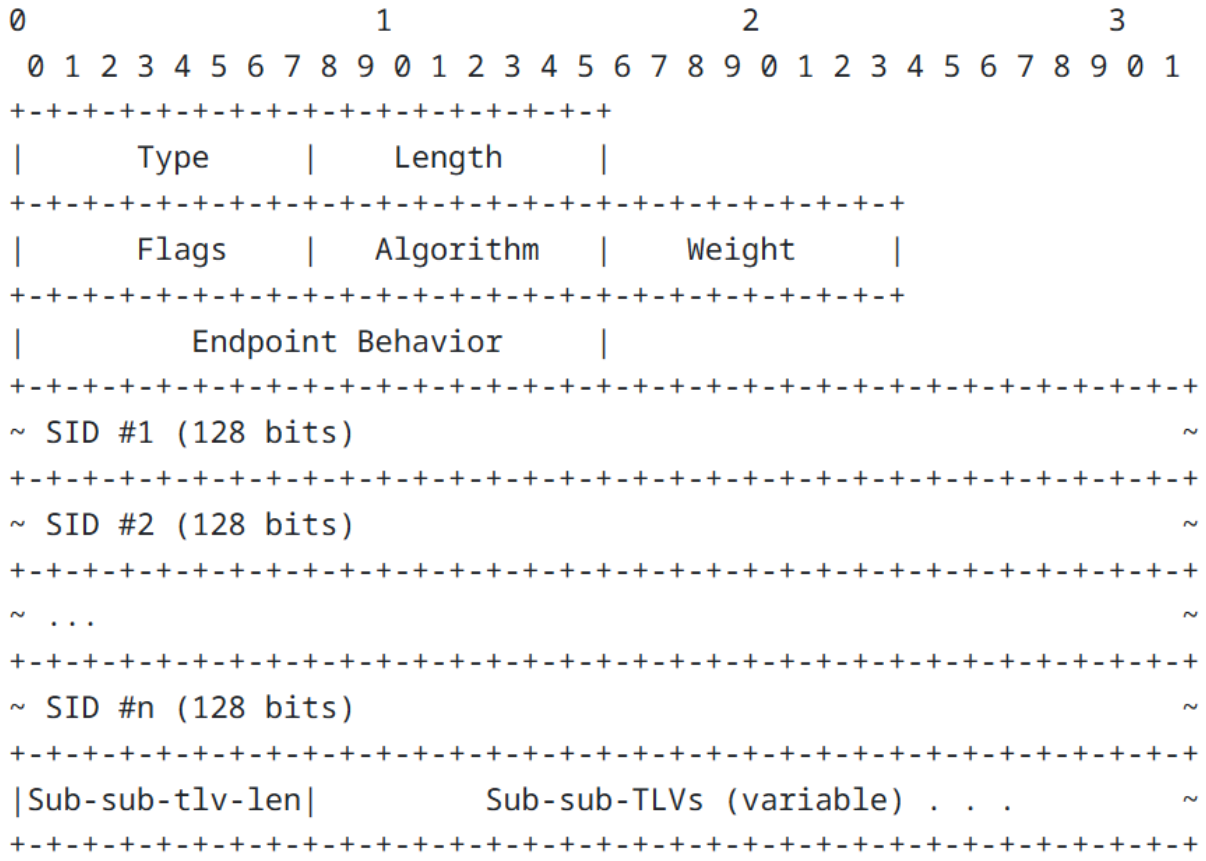
- This document proposes extensions to advertise the SRv6 SIDs of the L2 bundle member links in IS-IS
  - It also describes the applicability of SRv6 SIDs related sub-TLVs to L2 bundle member links in OSPFv3

SRv6 Behavior for L2 bundle Member Link

- For SR-MPLS, Adjacency SID is used for L2 bundle member link
- As defined in [RFC8986], the SRv6 End.X behavior means "Endpoint with cross-connect to an array of layer-3 adjacencies".
  - An SRv6 SID associated with a Layer 2 bundle member link of an L3 adjacency can be considered as an instance of the End.X SID, which identifies “a subset” of the L3 adjacency
  - For each L2 bundle member link, separate SRv6 End.X SID is allocated

SRv6 SIDs Encodings for IS-IS L2 Bundle

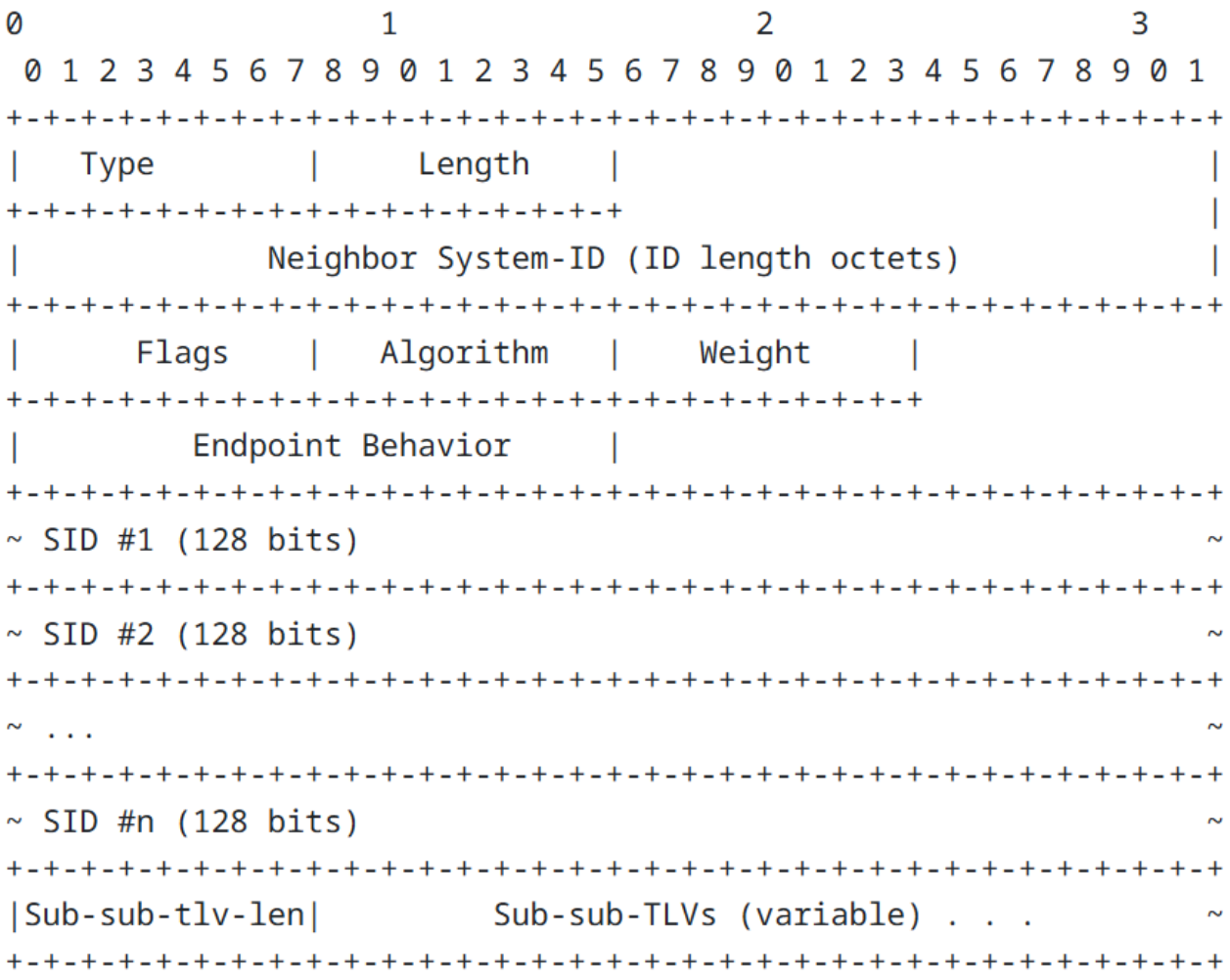
- New sub-TLVs of the L2 Bundle Member Attributes TLV (25) to advertise the SRv6 End.X SIDs for the L2 Bundle Members



L2 Bundle Member SRv6 End.X SIDs

- The Flags are the same as the Flags field of SRv6 End.X SID sub-TLV [RFC9352]
- The Endpoint behavior is set to the value of End.X behavior
- The number of the SIDs is determined by the "Number of L2 Bundle Member Descriptors“ field as defined in [RFC8668].

SRv6 SIDs Encodings for IS-IS L2 Bundle (Cont.)



L2 Bundle Member SRv6 LAN End.X SIDs sub-TLV

- The Flags are the same as the Flags field of SRv6 End.X SID sub-TLV [RFC9352]
- The Endpoint behavior is set to the value of End.X behavior
- The number of the SIDs is determined by the "Number of L2 Bundle Member Descriptors“ field as defined in [RFC8668].

SRv6 SIDs Encodings for OSPFv3 L2 Bundle

- IANA has set the L2BM flag for the following sub-TLVs, while there was no explicit documentation of their applicability to L2 bundle in [RFC 9513]
  - SRv6 SID Structure
  - SRv6 End.X SID
  - SRv6 LAN End.X SID
- This document adds descriptions about the applicability of these SRv6 SID related sub-TLVs under the L2 Bundle Member Attributes sub-TLV for the advertisement of SRv6 SIDs of the L2 bundle members in OSPFv3

Next Steps

- Comments and suggestions are welcome
- Move this straightforward document towards WG adoption

Thank You