

SR Policies Extensions for NRP in BGP-LS

draft-chen-idr-bgp-ls-sr-policy-nrp-02

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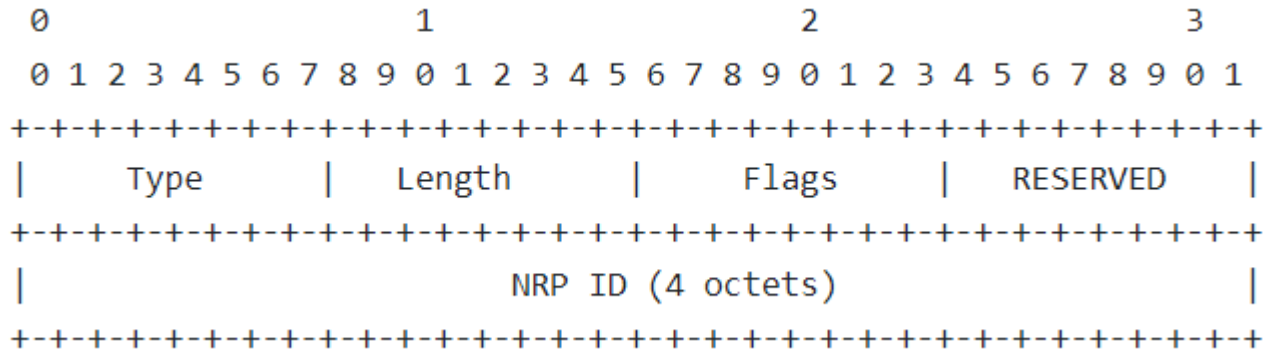
IDR WG interim Meeting, April 2023

Introduction

- Segment Routing Policy [RFC9256] is an ordered list of segments (i.e. instructions) that represent a source-routed policy.
- [draft-ietf-teas-ietf-network-slices] introduces the concept Network Resource Partition (NRP), which is a subset of the resources and associated policies in the underlay network.
- [draft-dong-idr-sr-policy-nrp] defines the extensions to BGP SR policy to specify the NRP which the SR Policy candidate path is associated with.
- [draft-ietf-idr-bgp-ls-sr-policy] describes a mechanism to distribute SR policy information to external components using BGP-LS.
- This document defines a new TLV which enable the headed to report the configuration and the states the NRP which the SR Policy candidate path is associated with.

BGP-LS SR Policy Extensions for NRP

- A new SR Policy state TLV called “NRP TLV” to carry the NRP which the SR Policy candidate path is associated with.



- Type: TBD1.
- Length: 6 octets.
- Flags: 1 octet of flags. None are defined at this stage. SHOULD be set to zero on transmission and MUST be ignored on receipt.
- RESERVED: 1 octet of reserved bits. SHOULD be set to zero on transmission and MUST be ignored on receipt.
- NRP: 4 octet global identifier of Network Resource Partition.

Procedures

- An SR Policy candidate path (CP) may be instantiated with a specific NRP on the headend node via a local configuration, PCEP, or BGP SR Policy signaling.
- Then the state and attributes of the NRP the candidate path of SR policy is associated with is encoded in the BGP-LS Attribute field as SR Policy State TLVs.
 - The SR policy State TLVs defined in [draft-ietf-idr-bgp-ls-sr-policy] are not changed to report the SR Policy Candidate Path's state and attributes
 - The NRP TLV is included to report the state of NRP.

Next Step

- Comments welcome.

Thank you!