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# draft-nainar-mpls-lsp-ping-ospfv3-codepoint-00

## OSPFv3 CodePoint for MPLS LSP Ping

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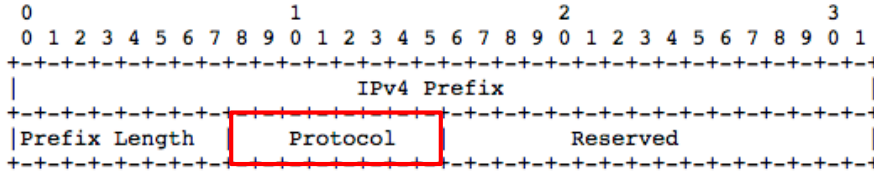
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# Problem Statement

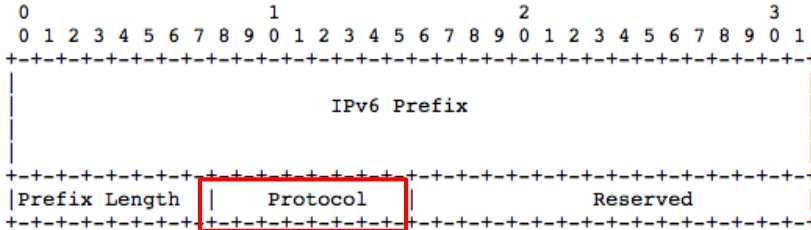
- IANA created 2 sub-registries under “MPLS LSP Ping Parameters” registry
  - Protocol in the Segment ID Sub-TLV
  - Downstream Detailed Mapping TLV
- RFC-8287 defines SR-IGP Prefix SID and Adjacency SID FEC extensions for MPLS LSP Ping and Traceroute.
  - Proposes codepoint for IGP protocols.
  - The codepoint for OSPFv3 is not defined in RFC-8287.
- This draft fills the gap by proposing a new codepoint for OSPFv3 protocol.

# Protocol field in SID Sub-TLV

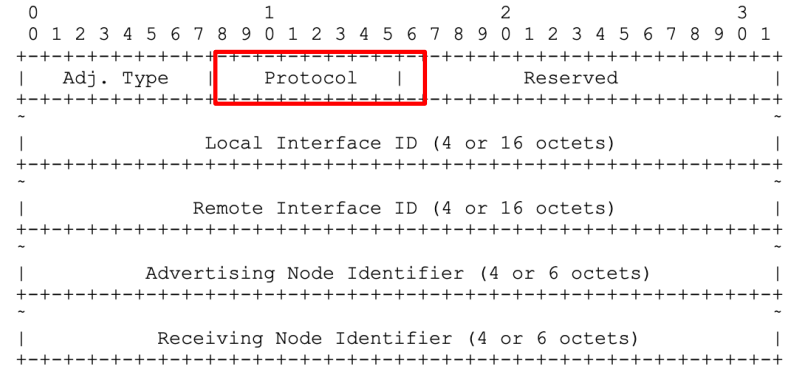
IPv4 IGP-Prefix Segment ID Sub-TLV



IPv6 IGP-Prefix Segment ID Sub-TLV



IGP-Adjacency Segment ID



- The Protocol field is part of Sub-TLV.
  - Defines the IGP protocol details used by the responding node for FEC validation.

# IANA Registry

- ISIS Protocol is agnostic to Layer 3 protocol.
  - One ISIS process with different address-family for IPv4 and IPv6
- OSPFv2 is IPv4 based that supports IPv4 reachability information.
- OSPFv3 is IPv6 based that supports both IPv4 and IPv6 reachability information.

## Protocol in the Segment ID sub-TLV

### Reference

[\[RFC8287\]](#)

### Available Formats



CSV

Range	Registration Procedures
0-250	Standards Action
251-254	Experimental Use

Value	Meaning	Reference
0	Any IGP Protocol	<a href="#">[RFC8287]</a>
1	OSPF	<a href="#">[RFC8287]</a>
2	ISIS	<a href="#">[RFC8287]</a>
3-250	Unassigned	
251-254	Reserved for Experimental Use	<a href="#">[RFC8287]</a>
255	Reserved	<a href="#">[RFC8287]</a>

# IANA Registry

## Protocol in Label Stack Sub-TLV of Downstream Detailed Mapping TLV

### Reference

[\[RFC8287\]](#)

### Available Formats



Range	Registration Procedures
0-250	Standards Action
251-254	Experimental Use

Value	Meaning	Reference
0	Unknown	<a href="#">[RFC8029, Section 3.4.1.2]</a>
1	Static	<a href="#">[RFC8029, Section 3.4.1.2]</a>
2	BGP	<a href="#">[RFC8029, Section 3.4.1.2]</a>
3	LDP	<a href="#">[RFC8029, Section 3.4.1.2]</a>
4	RSVP TE	<a href="#">[RFC8029, Section 3.4.1.2]</a>
5	OSPF	<a href="#">[RFC8287, Section 6]</a>
6	ISIS	<a href="#">[RFC8287, Section 6]</a>
7-250	Unassigned	
251-254	Reserved for Experimental Use	<a href="#">[RFC8287]</a>
255	Reserved	<a href="#">[RFC8287]</a>

# OSPFv3 Code Point

Value	Meaning	Reference
TBD2	OSPFv3	This document

- This draft proposes a new codepoint for OSPFv3 protocol.
- Applicable for Segment ID Sub-TLV Type 34, 35 and 36.

# Next Steps

- WG Adoption Request
- WG Feedback welcome
- Thank you 😊