

[draft-ietf-ospf-segment-routing-extensions-01](#)

[draft-psenak-ospf-segment-routing-ospfv3-extension-02](#)

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# OSPF SR Drafts Evolution

- Originally posted in June 2013 – before IETF 87
- Presented in Vancouver – IETF 88
- Drafts went through several rounds of updates
- OSPFv2 SR draft has been accepted as WG item
- OSPFv3 draft - WG adoption poll initiated, sufficient support to become WG item.

# Evolution - SID/Label Range TLV

- support for multiple SID/Label Range TLV in R1 LSA
  - Useful if platform has fragmented label space and needs to originate multiple ranges

# Evolution - Prefix-SID subTLV

- New bits defined for Flags field
  - E-Flag: Explicit-Null Flag
  - V-Flag: Value/Index Flag
  - L-Flag: Local/Global Flag
- moved Reserved field next to Flags field
  - in case we need more flags in the future
- P-flag renamed to NP-flag
  - NP-Flag: no-PHP flag
- Additional text describing the usage of E-Flag and P-flag has been added

# Evolution: Adj-SID & LAN Adj-SID subTLVs

- added V-bit, L-bit and S-bit
  - The V-Flag: Value/Index Flag
  - The L-Flag: Local/Global Flag
  - The S-Flag: Set Flag
- Reserved field moved next to Flags
- replaced nested Sub-TLVs with SID/Label/Index field

# Evolution: IANA Section

- Has been divided to multiple sections
  - Each section covers a single IANA registry
- Experimental range has been reserved for TLVs/sub-TLVs of new Extended Prefix and Extending Link LSAs
  - 32768-33023

# Editorial Changes

- editorial comments from Acee included
  - Thanks Acee!
- more text added about the SID/Label Binding sub-TLV usage

# Early IANA Allocation

- Opaque Link-State Advertisements (LSA) Option Types Registry:
  - value 7 - for OSPFv2 Extended Prefix Opaque LSA
  - value 8 - for OSPFv2 Extended Link Opaque LSA

## OSPF Router Information (RI) TLVs Registry:

- value 8 - SR-Algorithm TLV
- value 9 - SID/Label Range TLV
- <http://www.iana.org/assignments/ospfv2-parameters/ospfv2-parameters.xhtml>



# Implementations

- At least two implementations are available
- Interoperability testing in progress between Alcatel and Cisco
  - basic interop test has passed
  - we will share a report in a following IETF

# Discussion

- Please post your comments on the WG list
- We have received some good comments from Acee and Anton
  - Encoding of 'Range Size' in Prefix-SID/ and SID/Label Binding sub-TLVs