LSR for SR Proxy Forwarding

draft-hc-lsr-proxy-forwarding-00

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IETF 113,

Introduction

- Proxy Forwarding for SR-TE path protection
  - with IGP extensions
  - Protecting Node, Binding SIDs of a failed node
  - Presented and discussed in SPRING
- Move IGP extensions to this draft

IGP Extensions

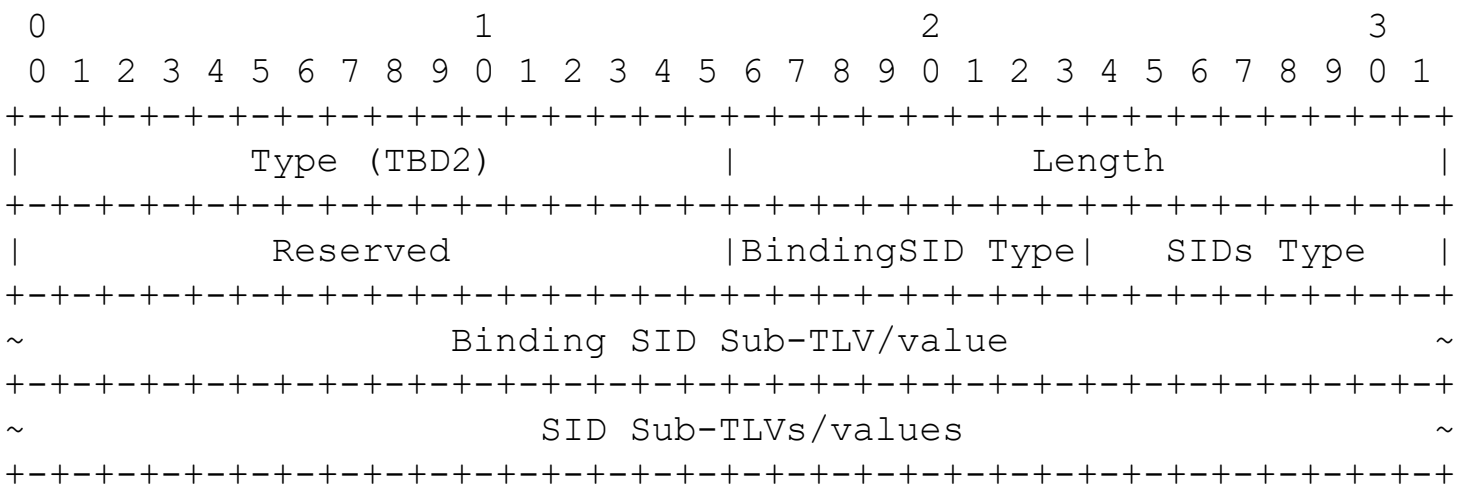
- Advertising Binding Segment
  - Binding Segment: a binding SID and a list of segments
  - Node has Binding Segments
  - Node advertises them to its neighbors
- Advertising Proxy Forwarding capability
  - P with capability for P's neighbors Advertises it
  - Capability of P for P's neighbor N indicated by
    - mirror SID for N advertised by P if any, or
    - A PF (Proxy Forwarding) bit advertised by P

Advertising Binding Segment: OSPF

A binding segment is represented by binding segment TLV

Node N advertises it using TLV in link-scope LSA

- When N failed, P (neighbor of N) does proxy forwarding for N using the binding information

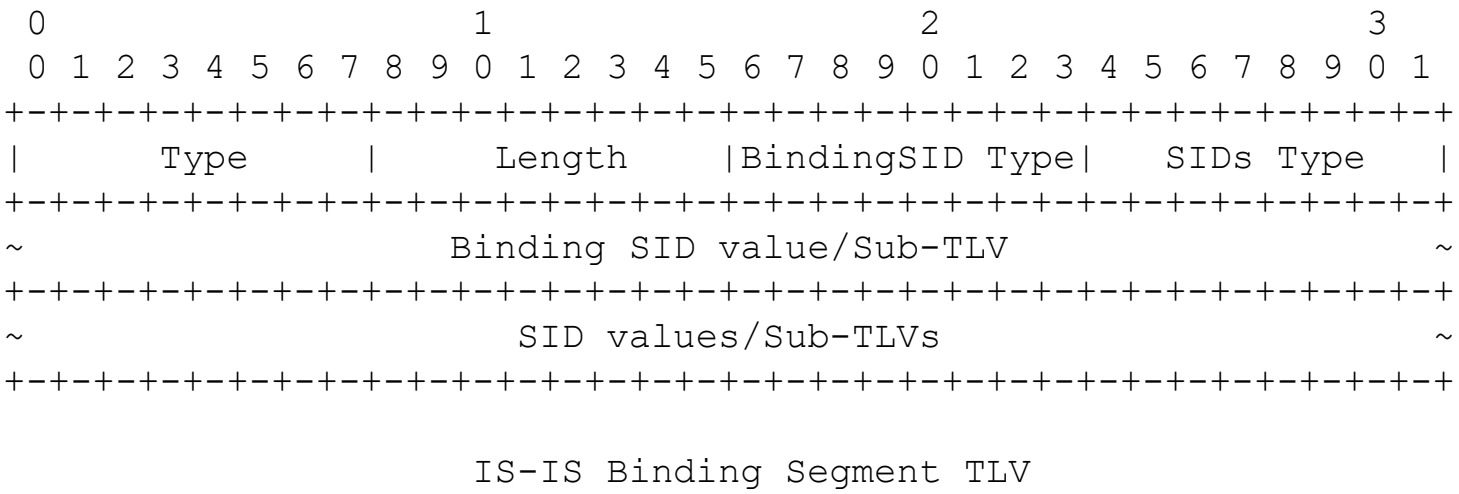


OSPF Binding Segment TLV

Advertising Binding Segment: IS-IS

A binding segment is represented by binding segment TLV

- Node N advertises it using TLV in link-scope LSP
- When N failed, P (neighbor of N) does proxy forwarding for N using the binding information

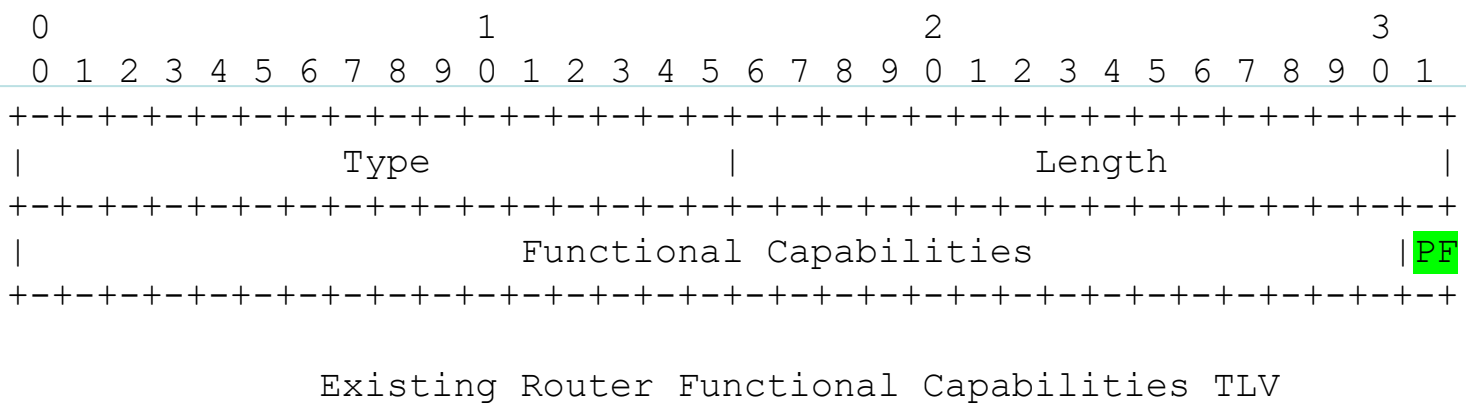


IS-IS Binding Segment TLV

Advertising Proxy Forwarding Cap: OSPF

A PF (Proxy Forwarding) bit defined in

Existing Router Functional Capabilities TLV

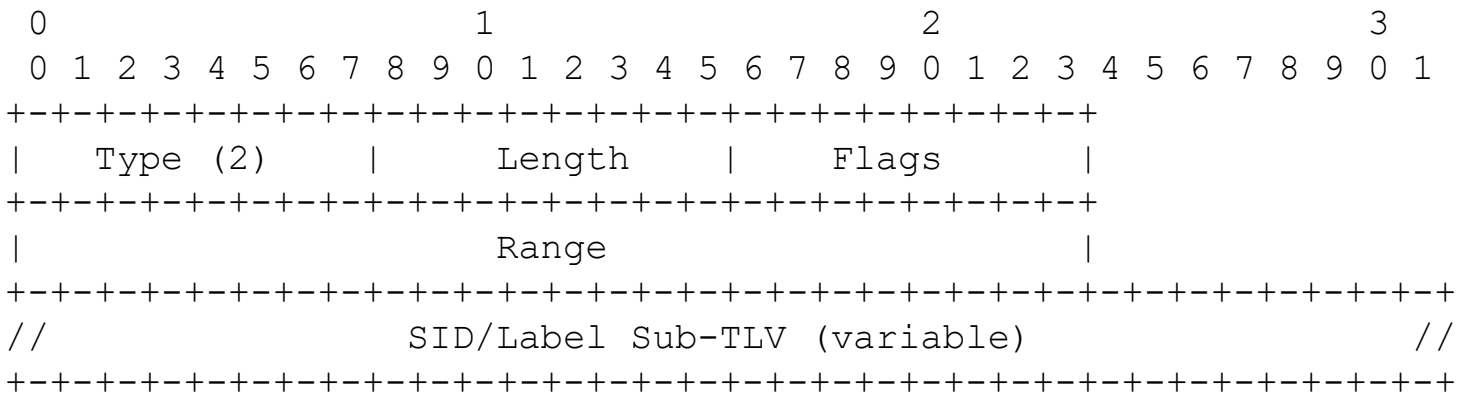


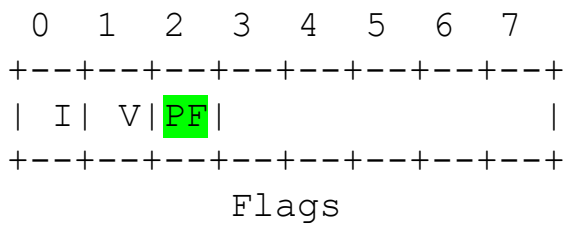
Existing Router Functional Capabilities TLV

Advertising Proxy Forwarding Cap: IS-IS

Similar to OSPF

- Node P advertises it using SR Capabilities sub-TLV with PF in Flags





Existing SR Capabilities sub-TLV

Next Steps

- Welcome comments