ISIS WG

IS-IS Segment Routing Extensions

draft-ietf-isis-segment-routing-extensions-07

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Version 04

- Added Multi-Topology Aware Binding SID TLV
- Clarification on SRGB encoding in SR-Cap SubTLV

Version 05

- Clarification on the setting of the A-flag of the Binding TLV when propagated/ leaked across level boundaries
- Added text on PHP Behavior when using Mapping Server Advertisements
- Added clarification text on SR-Cap flag:
  - I-Flag: MPLS IPv4 flag. If set, then the router is capable of processing SR MPLS encapsulated IPv4 packets on all interfaces
  - V-Flag: MPLS IPv6 flag. If set, then the router is capable of processing SR MPLS encapsulated IPv6 packets on all interfaces
  - H-Flag: SR-IPv6 flag. If set, then the router is capable of processing the IPv6 Segment Routing Header on all interfaces as defined in draft-ietf-6man-segment-routing-header
- Added text on SRGB advertisement after restart
- Introduced Algorithm-1: strict-SPF

Version 06

- Added reference to draft-ietf-spring-conflict-resolution for SRGB ranges advertisements conflicts

Version 07

- Refresh, no changes

To be addressed - SR-Algorithm Sub-TLV

- The SR-Algorithm sub-TLV is inserted into Router Capability TLV-242 defined in RFC4971
- May have value 0 (SPF) or 1 (strict SPF). More algorithms may be defined
- Optional, it MAY only appear a single time inside the Router Capability TLV
- When the originating router does not advertise the SR-Algorithm sub-TLV, then all the Prefix-SID advertised by the router MUST have algorithm field set to 0. Any receiving router MUST assume SPF algorithm (i.e.: Shortest Path First).
- When the originating router does advertise the SR-Algorithm sub-TLV, then algorithm 0 MUST be present while algorithm 1 MAY be present
- In section 2.1 (Prefix-SID Sub-TLV)
  - A router receiving a Prefix-SID from a remote node and with an algorithm value that such remote node has not advertised in the SR-Algorithm sub-TLV (Section 3.2) MUST ignore the Prefix-SID sub-TLV.

To be addressed - SR-Algorithm Sub-TLV

- Wouldn't it be more simple to states that algorithm 0 MUST be implicitly supported and therefore not needed to be advertised ?
  - The spec will gain in clarity
  - Better for future implementations
- Issue: backward compatibility in case implementations expect algorithm 0 to be received
- Question: do we have implementations that are deployed and that would be affected ?

Questions?

Thanks!