LSVR BGP SPF
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Status Update - Version 15

Updates

- Nits: Consistency in usage of BGP SPF speakers as a terminology

- Provided clarification text on BGP SPF update packing of NLRIs
  - Higher chances of packing single NLRI per BGP-LS attribute

- Added text that ensures only one status TLV is advertised within a given update
  - Status TLV is common for Link attribute, Node attribute and a prefix attribute
  - Beefed up associated Error handling text
Status Update - Version 15
Updates (cont’d)

- Provided clarification text in SPF algorithm section for handling of ECMP next-hops:
  - Next-hops bound to number of ECMP configured
  - Numbered link’s next-hop preferred over an unnumbered link’s next-hop
  - Highest address on numbered link and highest remote identifier on an unnumbered link is preferred
Status Update - Version 15
Updates (cont’d)

- Provided clarification text in SPF algorithm section for link matching criteria:
  - For numbered links, link descriptors must share a IPv4 or IPv6 subnet
  - For unnumbered links, current link’s local identifier MUST match remote node link’s remote identifier AND current link’s remote identifier MUST match remote node link’s local identifier

- Added Error handling text of IPv4 Prefix-length TLV
  - Any error in length value of IPv4 Prefix-length TLV in Link NLRI BGP-LS attribute MUST result in
    - Dropping of the TLV
    - Ensuring that the corresponding Node NLRI is not advertised further
    - Ensuring that the corresponding Link NLRI is considered as Malformed and MUST be handled as “Treat-as-Withdraw”

- Fixed Minor Nits
Draft version 13 was submitted on 7-01-21

Incorporated AD comments
- Beefed up Error handling
- Security section
- Clarified the interaction and relation to BGP-LS and its TLVs
- Clarified text all over the draft
- SPF section augmented
- Minor Nits
Status Update - Summary

- Most of the text changes has minimal impact on implementation
  - Error handling an exception

- IANA section updated with implementation based TLV values
Status Update - Summary

- WGLC successfully done
  - Received reviews and feedback from lot of folks
  - Request chairs to complete the last call.
- Early review of routing directorate done
  - Issues were addressed, Status needs to be cleared
- Addressed comments received from the Routing AD
- Multiple implementations now available
  - Opensource implementation also available in FRR
Status Update - Summary

- YANG model draft work in progress
  - Fairly straightforward model
  - Model can be extended for BGP-LS SAFI
Thank you