Recommendations for Processing Mechanism for Checksum Error LSP in interoperable Networks using IS-IS

draft-li-isis-error-lsp-processing-01

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Introduction

- In RFC3719, a number of differences between the IS-IS protocol and the protocol as it is deployed today is discussed
- There are still some differences in different vendors' products. These differences may contributed to severe network flapping across the whole network

Checksum calculation

- In the zero Remaining Lifetime LSP, Some implementations fill in the checksum field with zero.
- It is RECOMMENDED to calculate the checksum of all LSPs correctly, including zero Remaining Lifetime LSP.

Zero Checksum LSP Processing

- All LSPs with a non-zero remaining lifetime and a zero checksum as if they had as checksum error
- LSP with a zero checksum and a zero remaining lifetime SHOULD be treated as the LSP with correct checksum
- The implementation SHOULD check the remaining lifetime first, then check the checksum

Zero Remaining Lifetime LSP Processing

- ISO 10589, section 7.3.16.4, note 36, states: A check of the checksum of a zero Remaining Lifetime LSP succeeds even though the data portion is not present.
  - a zero Remaining Lifetime LSP SHOULD be treated as correct LSP, no matter whether its checksum is correct or not.
- Some implementations, however, still check the checksum of a zero Remaining Lifetime LSP
- It is recommended for the products to follow the ISO 10589, section 7.3.16.4, note 36

Corrupt LSP processing

- In order to control the processing mechanism of Checksum error LSP, some products provide an on-off configuration switch.
- But the default state of the switch is different
- It is suggested that all manufacturers provide such an on-off configuration switch.
- It is RECOMMENDED that the default state of the on-off switch be in accordance with Section 7.3.14.2 e) of ISO 10589.

Thank You