draft-esale-mpls-ldp-node-frr-05

Fast Reroute for Node Protection in LDP-based LSPs

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(presented by Kireeti Kompella)

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Key Highlights

⁜ Fast Re-route for LDP-signaled transport LSPs

⁜ Local protection to minimize connectivity disruption

⁜ Link and node protection for LDP based transport LSPs using RSVP-TE bypasses

⁜ No restrictions on the network topology – provide topology independent local protection so long as there is alternate path in the network that avoids the protected node

Key Highlights

- Additional provisioning and configuration required could be fairly small

  - Depends on implementation - however it could be as minimal as single line

  - bypass LSPs from PLR to MPT and Targeted LDP between PLR and MPT can be established automatically

- Relies on the existing IETF standards

  - RSVP-TE for establishing bypass LSPs

  - Targeted LDP to obtain label mapping from MPT

    - Needed only for node protection

- Synergy with link and node protection for mLDP-signaled LSPs

Does it apply to SR?

- ❖ Yes and No

- ❖ The main purpose of the solution is to provide topology independent local protection using RSVP-TE in LDP based MPLS networks

- ❖ Link protection is already deployed using manually configured RSVP-TE one-hop LSPs

- ❖ This draft addresses node protection

- ❖ It can also be used to protect SR node segments to keep the SR label stack depth small, especially for node segments

References to earlier work

- We studied existing work on this topic including RFC6981, RFC5715, draft-shen-mpls-ldp-nnhop-label etc

- We believe that the procedures described in this document are unique and simple

- We will add few more references in the next revision

- More suggestions? Speak out or write to us

Next Steps

- Version 05 addresses all the comments that we have received so far

- The draft is stable for a year now

- Therefore, the authors would like to request a working group adoption of the draft, either in the MPLS WG or in RTGWG