Fast Reroute for Node Protection in LDP-based LSPs

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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