RSVP Egress fast-protection

draft-minto-rsvp-lsp-egress-fast-protection-01

Jeyananth Minto Jeganathan(minto@juniper.net)
Hannes Gredler(hannes@juniper.net)
Yimin Shen(yshen@juniper.net)
Problem statement

• RFC 4090 enable local repairing LSP in the order of 10s milliseconds in Core node, link failure.

• But it does not handle the LSP end node failure.

• Some services required sub-second restoration and some nodes intelligent enough to restore service using upstream label in case edge failure.
Requirements

• A node, backup egress, Could able to reroute traffic to ultimate destination.

• LSP required egress protection end point address is not a router ID of the failing egress node.
Methods

• This draft propose 2 methods

• Proxy
  Suitable for mixed environments, where an upgrade of the entire network is not feasible

• Alias
  will work with arbitrary TE constraints and suitable for networks that required LSP with those TE constraints
Let say LSP X need egress protection.
Advertise X as proxy node in TED.
Terminate protected LSP X in primary add RRO for proxy from primary.
Terminate bypass UHP in backup.
Alias method

- Advertise as secondary loopback from primary.
- A new TLV with optional label for mapping from protector or configure a mapping in PHOP.
- Bypass computation to backup and UHP LSP signal with x.