RSVP-TE Based MPLS LI & LB

draft-dong-ccamp-rsvp-te-mpls-tp-li-lb-05

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IETF86   CCAMP   Mar. 2013   Orlando

Background

- LI&LB are useful OAM functions in a transport network

    - The lock function enables an operator to lock a transport path such that it does not carry client traffic, but can continue to carry OAM messages and may carry test traffic.

    - The loopback function allows an operator to set a specific node on the transport path into loopback mode such that it returns all received data.

- The LI&LB requirement defined in RFC 5860, and NMS based LI & LB defined in RFC 6435

    - Suitable for the scenario where no control plane used

- This document introduces a general control plane based LI&LB

    - LI&LB affect the data plane of the LSP

    - Control plane based LI&LB can ensure control plane & data plane consistency

Solution Overview

- Lock Instruct

| Path with A set | LSR1 | LSR2 | Perform Lock operation |

LER1 ... LER2

Resv (success) or PathErr (failure)

- Loopback

1. Path with Loopback bit set

2. Address to LSR2 by Per-Hop attribute mechanisms

3. Perform Loopback Operation

LSR1   LSR2

LER1 ... LER2

Resv (success) or PathErr (failure)
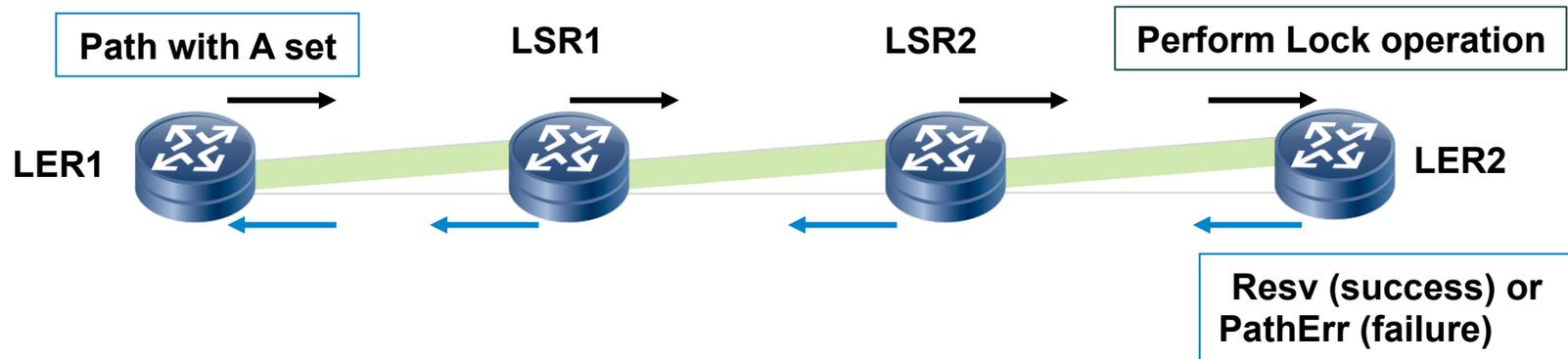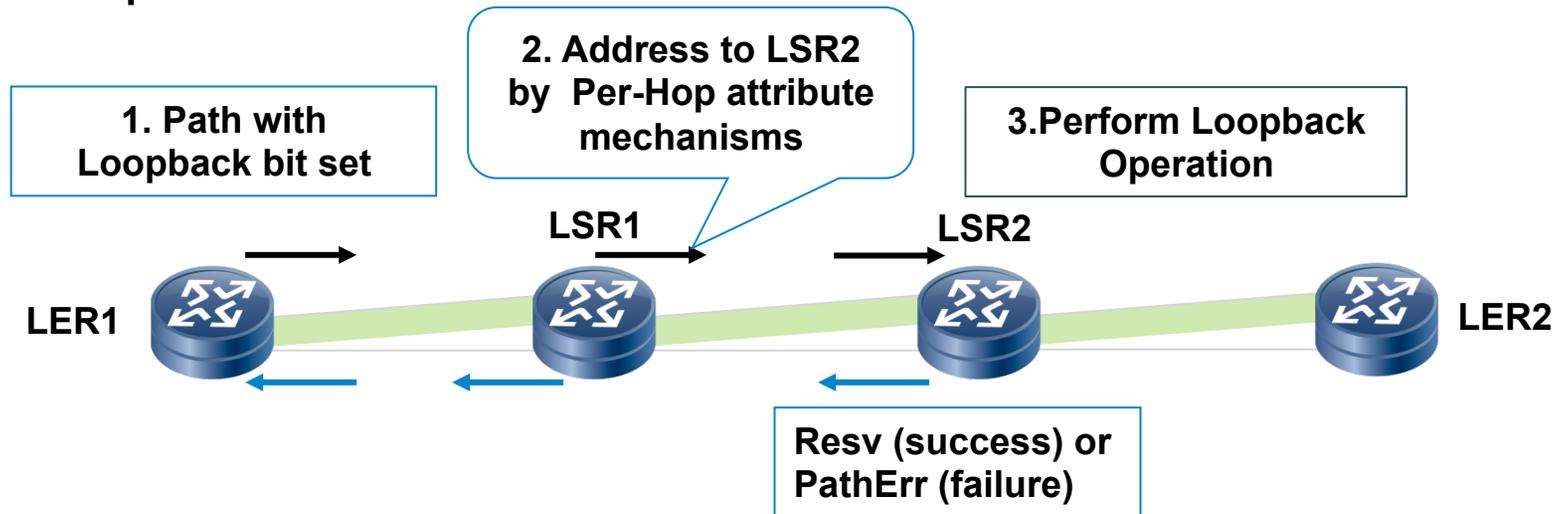
Updates

- ## Pre-version-05

  - Mainly designed for MPLS-TP network

  - Complementary to the NMS based LI & LB

- ## Updates in version-05

  - Generalize the application scope (according to Lou's suggestion)

    - To both MPLS-TP and non-MPLS-TP scenarios

  - Updated the terminologies and relevant description to align with the conventions of CCAMP

  - Editorial changes

Next Steps

- Authors think this is ready to be adopted as a WG document