Extensions to RSVP-TE for LSP Ingress Local Protection

draft-ietf-mpls-rsvp-ingress-protection-01

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Updates from the last version

Updates on Ingress Failure Detection Modes

1. Source Detects Failure (Enhanced)
2. Backup and Source Detect Failure
3. Backup Detects Failure (Removed)
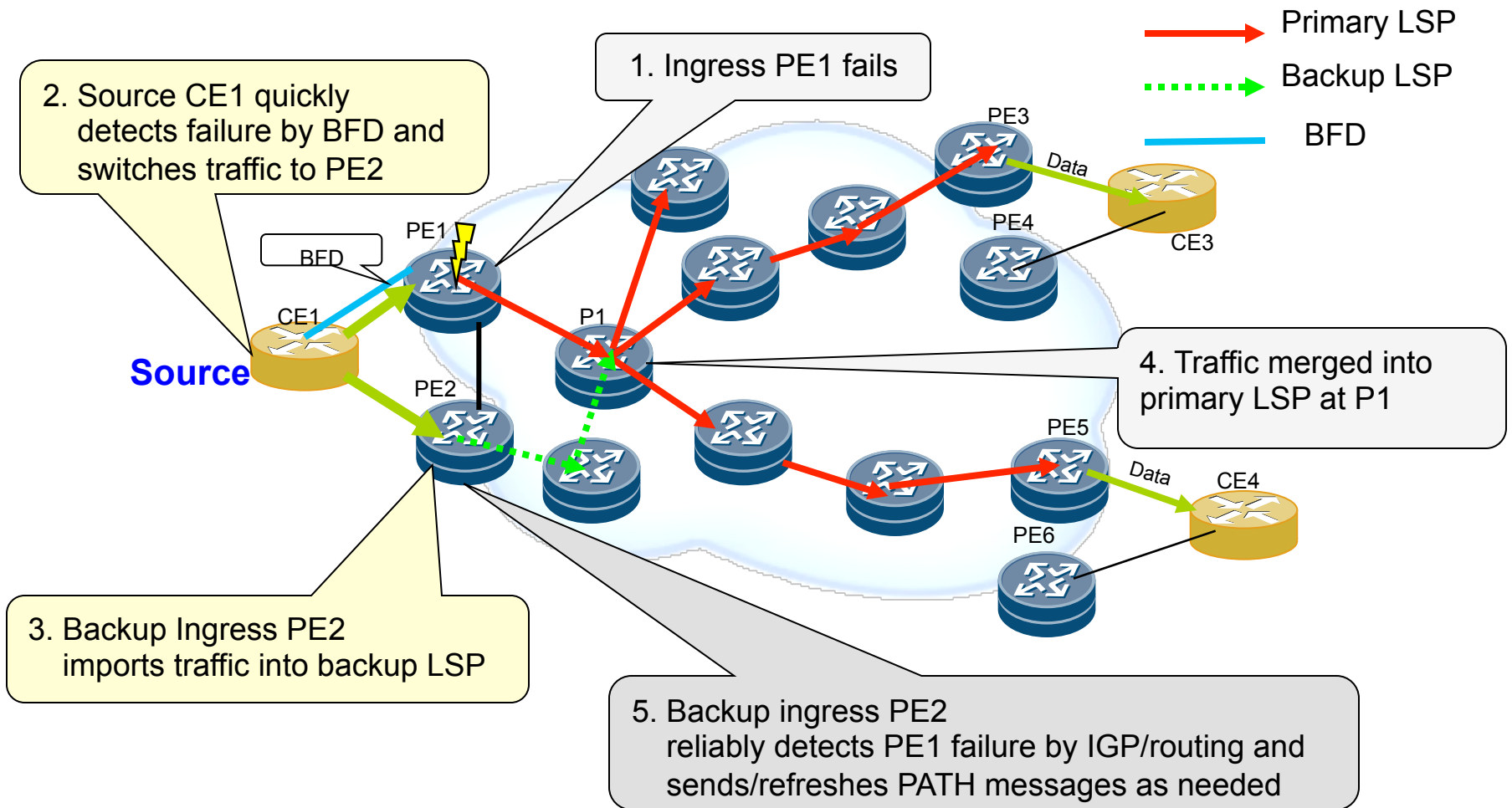4. Next Hops Detect Failure (Removed)

One Detection Mode

DM (Detection Modes) field (Removed)

Try to converge to one failure detection mode

Source Detects Failure

Source (CE1) quickly
   detects ingress (PE1) failure and
   switches traffic to backup ingress(PE2)

Backup Ingress (PE2)
   always ready to import traffic into backup LSP
   reliably detects ingress failure, sends Path message

1. Ingress PE1 fails

2. Source CE1 quickly
   detects failure by BFD and
   switches traffic to PE2

3. Backup Ingress PE2
   imports traffic into backup LSP

4. Traffic merged into
   primary LSP at P1

5. Backup ingress PE2
   reliably detects PE1 failure by IGP/routing and
   sends/refreshes PATH messages as needed

Primary LSP

Backup LSP

BFD

PE1
BFD
CE1
Source
PE2
P1
PE3
Data
CE3
PE4
PE5
Data
CE4
PE6

3

Some Questions

Ingress Failure Detection Modes:

- Any issues on Source Detects Failure?

- Should we use one failure detection mode?

- Should we provide multiple modes and let operator to select one?

Request comments on:

Relay-Message Method and Proxy-Ingress Method

Next Step

- Welcome comments