



Signal Degrade Indication in Segment Routing over MPLS Network

draft-han-mpls-sdi-sr-01

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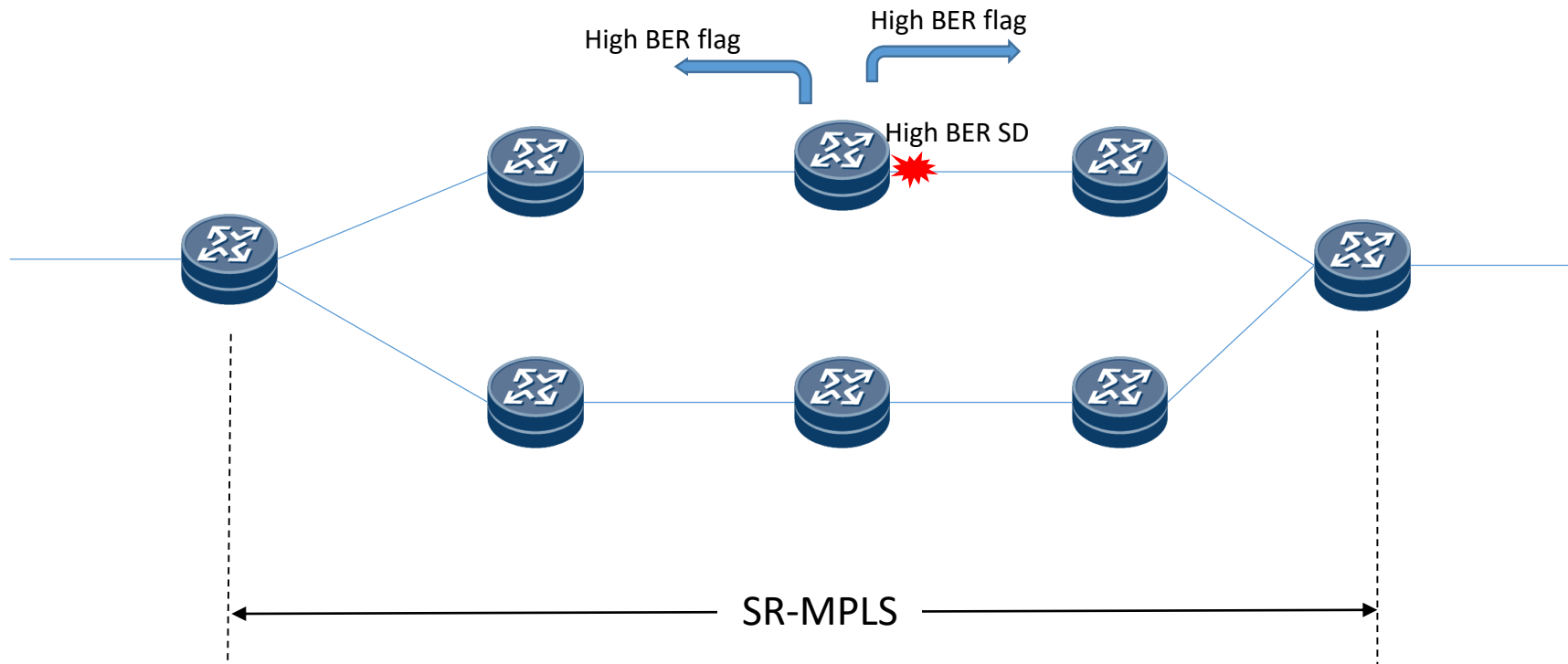
Motivation

- The fact about signal degrade in mobile backhaul network :
 - Signal degrade brings significant impact to voice and data services
 - Signal degrade should be monitored, detected, and reported
 - Signal degrade is also used to trigger protection mechanism

- The problem which SR-MPLS faces:
 - MPLS-TP OAM message with active Alarm Indication Signal (AIS) is transmitted to indicate signal degrade defect on MPLS LSRs
 - However in SR-MPLS, intermediate nodes have no knowledge of forwarding labels, signal degrade defect cannot be spread to edge node to trigger e2e protection mechanism

Scenario

Need to send indication to Ingress/Egress node to trigger path adjustment



Networks using MPLS-TP OAM

- For the networks using MPLS-TP OAM: make use of Continuity Check Message (CCM) message to carry SD flag

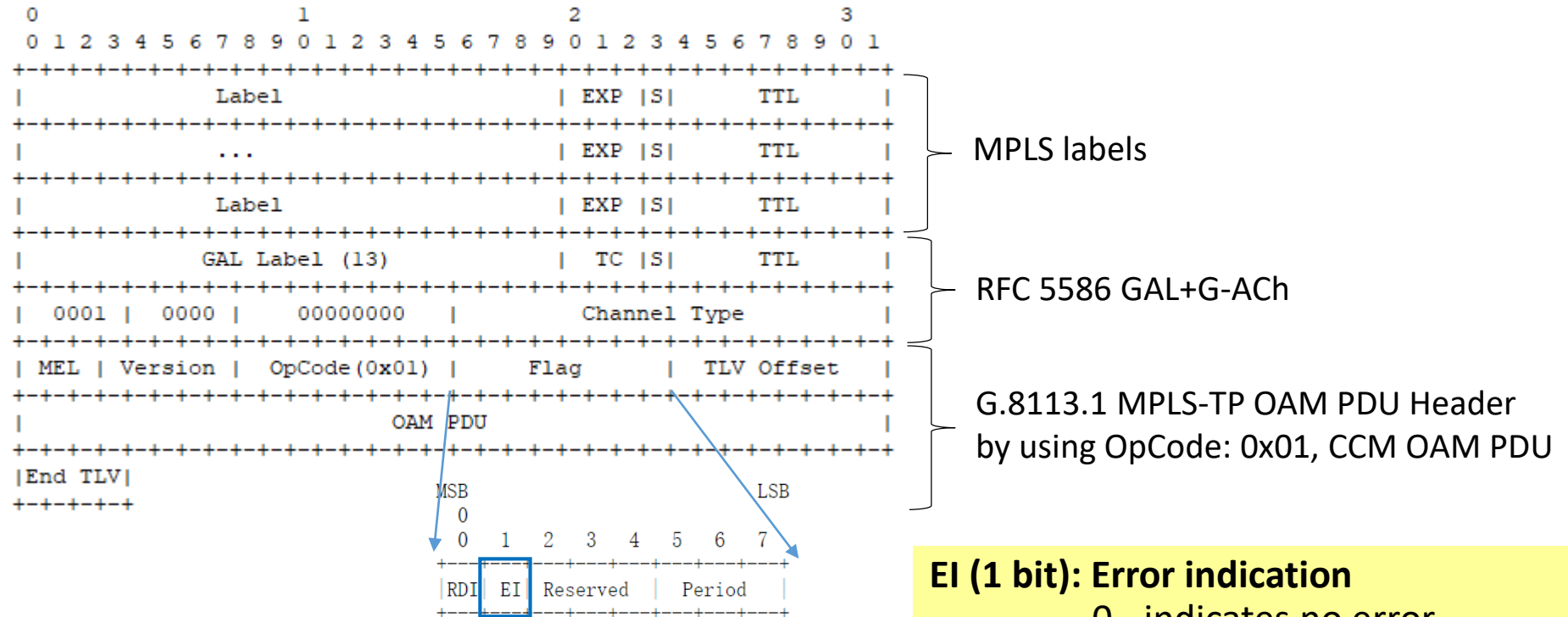


Figure 3 CCM OAM PDU Flags Format with EI Extension

- For the networks using other OAM mechanisms: similar extensions could be applied.

Updates since IETF 109

- Add the background of MPLS-TP network
- Further clarify the scenario and problems
- Remove one solution to focus on MPLS-TP OAM solution in MPLS WG
- Add IANA request
- Welcome Junfeng Zhao from CAICT as another co-author

Comments Solicit

- It is a very light-weight solution
- Already implemented and largely deployed in networks
- Request IANA to assign 1 bit in Flags field to indicate SD

Next steps

- Comments and suggestions are greatly welcome
- Adopted as a WG draft ?

Thank you !