Signal Degrade Indication in Segment Routing over MPLS Network
draft-han-mpls-sdi-sr-01

Liuyan HAN, China Mobile
Fan YANG, Huawei
Junfeng ZHAO, CAICT

Presenter: Liuyan HAN
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 has 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

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

---

EI (1 bit): Error indication
0 - indicates no error
1 - indicates error
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!