draft-ali-spring-sr-service-programming-oam-00

OAM for Service Programming with Segment Routing

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Scope of the Document

- This document defines the OAM for service programming in SR-enabled MPLS and IP networks.

- The OAM functionality is fully integrated in the Service Program.

Procedure – Ingress Node

- Ingress node marks the OAM packet with an "OAM packet Marker"
  - SRH/Flags.O-bit is the OAM packet marker in SRv6 networks.

Procedure – Service Node

- SR Aware Service:
  - An SR-aware service SHOULD skip applying the service on the OAM packet while forwarding the packet to the next segment or IP address.
  - OAM operation is fully integrated in the service program.

- SR Unaware Service:
  - An SR-unaware service may be a legacy service that is not able to process the SR information in the packet header.
  - SR proxy uses the OAM packet marker in the SR header to differentiate the OAM packet from normal data packet.
  - SR Proxy MUST skip forwarding the packets with OAM marker to the service while forwarding the packet to the next segment or IP address.
  - OAM operation is fully integrated in the service program.

Illustrations

- The draft outlines the following SRv6 use-cases:
  - Service Ping using ICMP
    > Works seamlessly with classical IPv6 nodes/ services.
  - Service Traceroute using UDP probes
    > Works seamlessly with classical IPv6 nodes/ services.

Next Steps

- The authors would like to request WG for the review and the feedback.