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.