Multi-layer OAM for SFC Networks

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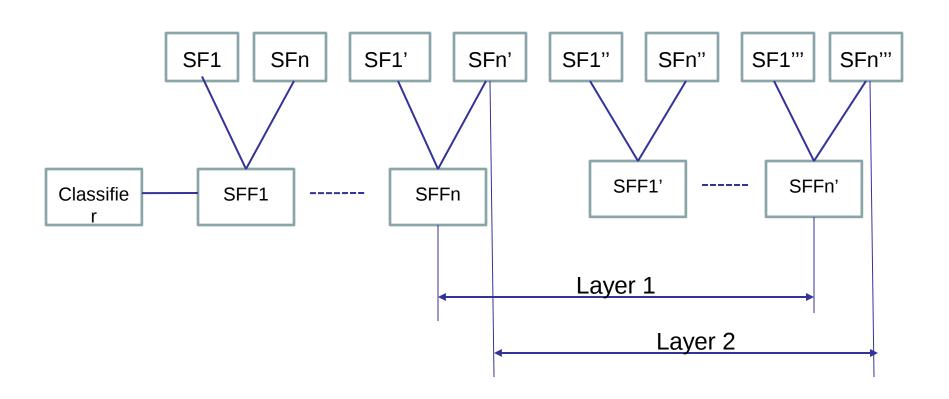
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SFC OAM Requirements

1. Packets of active OAM in SFC SHOULD be fate sharing with data traffic, i.e. in-band with the monitored traffic, i.e. follow exactly the same RSP, in forward direction, i.e. from ingress toward egress end point(s) of the OAM test
2. SFC OAM MUST support pro-active monitoring of any element in the SFC availability
3. SFC OAM MUST support Remote Defect Indication (RDI) notification by egress to the ingress, i.e. source of continuity checking
4. SFC OAM MUST support connectivity verification. Definition of mis-connectivity defect entry and exit criteria are outside the scope of this document
5. SFC OAM MUST support fault localization of Loss of Continuity check in the SFC
6. SFC OAM MUST support tracing an SFP in order to realize the RSP
7. SFC OAM MUST have the ability to discover and exercise all available RSPs in the transport network
8. SFC OAM MUST be able to trigger on-demand FM with responses being directed towards initiator of such proxy request

SFC OAM Multi-layer Model

Using Echo Request/Reply in SFC OAM

- SFC Echo Request MUST include identity of the sender or of the Echo Reply receiver
  - Use SFC Source TLV
- SFC Echo Reply transmitted over IP network to the IP destination address specified in SFC Source TLV
- Destination UDP port?
  - assign UDP port number as SFC OAM

Next steps

- Your comments, suggestions, questions always welcome and greatly appreciated
- WG adoption