

Return Path in SFC OAM

<https://tools.ietf.org/html/draft-ao-sfc-oam-return-path-specified-00>

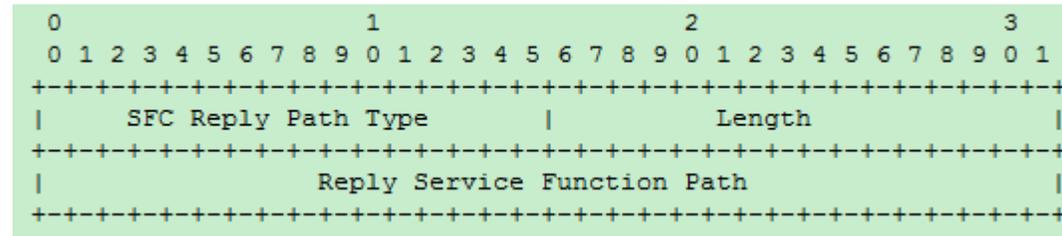
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What we want

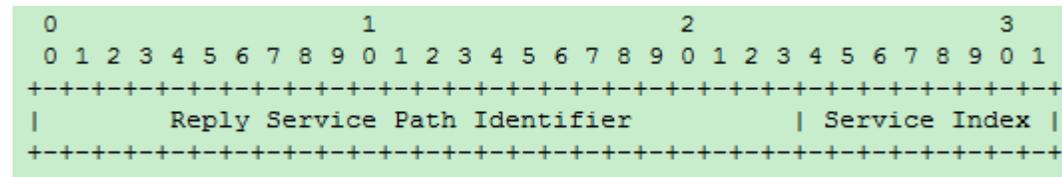
- OAM has four modes to control the path of Echo Reply:
 - Do Not Reply
 - Reply via an IPv4/IPv6 UDP Packet
 - Reply via Application Level Control Channel
 - **Reply via Specified Path**
- In SFC we want to specify an SFP as the return path of Echo Reply
 - One use case: For bi-directional SFC a reverse SFP is indicated in Echo Request so that such SFC can be checked in both direction.

What we do

- Define a new TLV: Reply Service Function Path TLV in Echo Request to indicate the specified return SFP.



- The format of Reply Service Function Path
 - Reply Service Path Identifier indicates the SFC path of Echo Reply
 - Service Index is used for the forwarding of the Echo Reply



Operation of the SFC OAM with specified return path

- Set the the value of Reply Mode field to be "Reply via Specified Path", and include SFC Reply Path TLV in the Echo Request message.
- The SFPID in the SFC Reply Path TLV is the identifier of the reverse SFP.
- The Echo Reply should use the SFPID and SI as its NSH header, and
 - If the return SFP cannot be found, the Echo Reply should include "Reply SFP was not found" in Return Code.
 - If the Reply Path TLV is not provided in the Echo Request with "Reply via Specified Path" , the Echo Reply should include ""Reply Path TLV is missing" in Return Code.

Next steps

- Comments, questions always welcome and greatly appreciated
- WG adoption?