draft-boutros-nvo3-geneve-applicability-for-sfc-02

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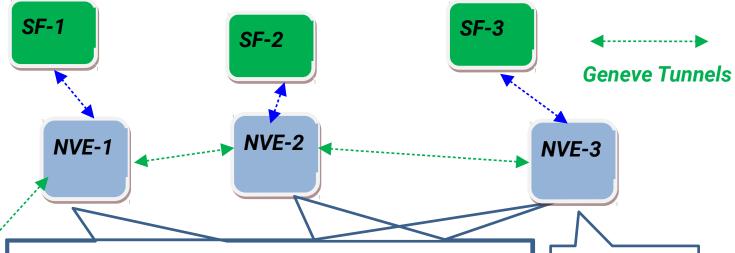
- 2 Control plane Options:
  - One with NSH SPI/SI forwarding tables passed to all SFF(s).
  - One with NSH SPI/SI along with a Geneve option TLV for the service function list forming the SFP passed to only the classifier/ingress SFF.
- Geneve next protocol=NSH Ethertype
  - To carry NSH base, path information and context.
- NSH Protocol = inner packet original protocol.

- New Geneve option TLV for the service function list forming the SFP.
  - Encodes list of service function ip addresses.
  - A sub-tlv for HMAC for security following procedures described in [draft-ietf-6man-segment-routing-header]
- Geneve next protocol=NSH Ethertype
  - To carry NSH base, path information and context.

### The encapsulation

Geneve Header: |Ver|OptLen|O|C|Rsvd.|Protocol Type=NSHEthertype. |Virtual Network Identifier (VNI| Reserved SFL Geneve Option: |SFL Option Class| |R|R|R| Length Type Variable Option Data NSH encapsulation Base Header Service Path Header Context Header(s)

- Based on a classification set the service function list (SFL) option TLV with IP addresses of the service functions.
- Resolves the service first function ip addr, to the NVE connected to it.



Ingres NVE

- Use SFL option, to locate it's SF in the list based on SI in NSH Header, maintain a state for SPI to SFL.
- Deliver inner packet to SF possibly along with metadata encaped w/ NSH if the SF is NSH aware, or using other ether encapsulations.
- For return packets, the NVE node, locate the SFL from the SPI/SFL state maintained, resolves the next service function ip address, to next NVE connected to the service function.

- Deliver Return packets to customer destination

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### Thank you

#### Next steps

• Seeking comments?

## Thank you