

UDP Overlay Transport For Network Service Header

draft-kumar-sfc-nsh-udp-transport-00

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NSH Background

- Network Service Header (NSH) has been adopted by the Service Function Chaining (SFC) WG as a means to carry information for both steering traffic between network service functions, and additional metadata for use by the service functions
- NSH supports both fixed and variable length metadata
- NSH is extensible
- NSH can carry any type of packet payload (e.g. Ethernet, IPv4, IPv6)
- NSH is independent of how it is transported across a network

Some NSH Transport Options

- The NSH draft (draft-ietf-sfc-nsh) gives examples of some ways to transport NSH
 - GRE
 - VXLAN GPE (note that this runs over UDP)
 - Ethernet
- However, there is no mention of carrying NSH *directly* over UDP

Benefits of UDP Transport for NSH

- Allows the use of the source UDP port to carry flow entropy across the network for use by the underlay network to distribute these flows
- Eliminates the overhead of the VXLAN GPE header which may not be needed
 - Many applications may not need virtual networks
 - If needed, the virtual network information could be part of the NSH metadata

Workgroup placement for this draft?

- The authors intend for this draft to be Standards Track
- This draft is directly related to SFC, so the SFC WG seems like the ideal place...
- However, the SFC WG is not specifically chartered to deliver standards for the transport of NSH
- This is why the draft is being presented here at RTG WG
- The authors are looking for guidance on how to proceed