Using Open vSwitch for service function chain (SFC) and SFC proxy to realize NFV

November 17, 2015
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A Service Function Chain (SFC) is an ordered set of service functions and Network Service Header (NSH) is a service tag for SFC.

By changing the service tag, we can provide service function(s) to a customer on demand.

We use OVS for SFC and SFC proxy to configure service chaining of SFC-unaware service functions.

We will show a demonstration of the service chaining using Network Service Header (NSH) for WAN acceleration.
Demo Configuration

- Pre-configure service chaining using OpenDaylight
- On demand, change service tag (NSH) to turn on/off WAN acceleration
Demonstration
Communication Performance

- Measured iperf communication performance using WAN acceleration on/off:
  - WAN Emulator (netem) configuration: RTT=200ms, Loss 0.5%
  - The network performance can be improved on demand.

WAN acceleration OFF

- 1Mbps or so

WAN acceleration ON

- Avg. 150Mbps or so
We will be using this testbed for the evaluation of end-to-end QoS in WAN which is important for NFV infrastructure.

Thank you.
shaping tomorrow with you