Service Programming with Segment Routing

draft-xuclad-spring-sr-service-programming
(was draft-xuclad-spring-sr-service-chaining)

Authors:
Francois Clad, Cisco (presenter)
Xiaoahu Xu, Alibaba
Clarence Filsfils, Cisco
Daniel Bernier, Bell Canada
Cheng Li, Huawei
Bruno Decraene, Orange
Shaowen Ma, Juniper
Chaitanya Yadlapalli, AT&T
Wim Henderickx, Nokia
Stefano Salsano, Universita di Roma "Tor Vergata"
Summary of changes (1)

- Updated sections 4 and 5 to leverage draft-ietf-spring-segment-routing-policy
  - Overall simplification of the proposal
  - Terminology alignment
    (SR policies, candidate paths, SID-lists, etc)

- Clarified that no dependency on RFC7665
SR Policy framework - reminder

- Headend to steer traffic into an SR policy
  - Local policy (e.g., static route)
  - Automated steering with BGP
  - Remote steering using the BSID

- SR policy may contain service segments

- Stateless in the fabric

Figure 1: SR service policy
Summary of changes (2)

• SR-aware services
  • Advanced network programming capabilities (sec. 4)
  • Open-source SR-aware services (sec. 8)

  Specific SRv6 support has been implemented for the below open-source services:
  
  o Iptables (1.6.2 and later)
  o Nftables (0.8.4 and later)
  o Snort

• Metadata carrier TLV for SRH
• Various small fixes and changes
Next steps

• Service failure detection and recovery

• Load balancing over multiple service instances

• Seeking WG input and feedback

• Asking for working group adoption