

# Segment Routing for Service Chaining

draft-xuclad-spring-sr-service-chaining-01

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IETF101, March 2018

London, UK



# Agenda

- Summary of changes
- SR-MPLS service segments
- SRv6 service segments
- Service segments in SR architecture
- Implementation
- Next steps



# Summary of changes

- Merging of
  - *draft-xu-mpls-service-chaining* and
  - *draft-clad-spring-segment-routing-service-chaining*
- Aligning terminology with SR architecture docs
- Adding SRv6 endpoint types table
  - Values to be assigned by IANA



# SR-MPLS service segments

- SID allocated on an SR-MPLS aware router connected to the service
  - Send with label stack to MPLS capable service
  - Use proxy function to remove SR information before sending to MPLS unaware service
  
- SID can be allocated from local or global label pool depending on the use-case



# SRv6 service segments

- SID instantiated on an SRv6 router / host connected to the service
  - Send with SRH to SRv6-capable device
  - Use proxy function to remove / hide SRH before sending to SRv6 unaware service
- SID instantiated on an SRv6 aware service
  - Traffic processing depends on the SID



# Service segments in SR architecture

## Just another type of segment

- Stateless in the fabric
- Seamless integration with VPN and/or TE
- Service is opaque to the head-end and intermediate nodes



# Implementation

- Proxy functions
  - Linux (srext kernel module)
  - FD.io VPP (18.04)
  
- SR-capable open-source services
  - iptables
  - nftables
  - Snort



# Next steps

- Seeking WG input and feedback
- Suggestions/comments are welcome!

