

Using Flex- Algo for Segment Routing based VTN

draft-zhu-lsr-isis-sr-vtn-flexalgo-01

Yongqing Zhu @China Telecom

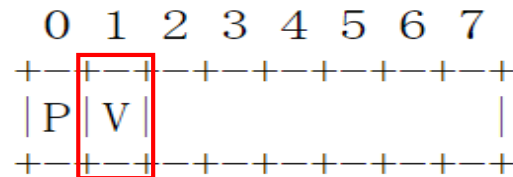
Jie Dong, Zhibo Hu @Huawei

Background

- A VTN is a virtual underlay network with the required topology and resource characteristics
 - Introduced in *draft-ietf-teas-enhanced-vpn*
- Resource-aware SID is defined in *draft-ietf-spring-resource-aware-segments*
 - SR SIDs can represent different sets of resources allocated for packet processing
- SR for VPN+ is described in *draft-dong-spring-sr-for-enhanced-vpn*
 - Describes the mechanism to build SR based VTN with resource-aware SIDs
- This document proposes Flex- Algo based control plane mechanism for SR VTN
 - To distribute the per-VTN topology and resource information to network nodes and controller

Mechanism in this draft

- Flex-Algo ID is reused as the control plane identifier of a VTN
 - Use Flex-Algo to describe the topology constraints of a VTN
 - Use IS-IS SR extensions to advertise algorithm-specific prefix SIDs/SRv6 Locators
- Extend IS-IS L2 bundle to advertise the TE attributes associated with VTN
 - IS-IS L2 bundle is extended for both physical and virtual member links



V flag: indicates the member links are virtual links

- Each VTN is associated with one or more physical or virtual member links in a bundle
 - Use admin-group/extended admin-group to correlate a Flex-Algo and the member links
 - TE attributes and SIDs advertised for the member links belong to the corresponding VTN

Updates in -01 version

- No significant change
 - The mechanism is stable since -00 version
- Add descriptions about the forwarding plane behaviors on VTN-specific prefix-SIDs and adj-SIDs
- Add reference to *draft-ietf-spring-resource-aware-segments*
 - Resource-aware SIDs are used in the data plane of SR VTN
- Some editorial changes

Next Steps

- The mechanism and content of this draft is stable
- Authors would like to ask for WG adoption of this document

Thank You