Using IS-IS MT for Segment Routing based VTN

draft-xie-lsr-isis-sr-vtn-mt-02

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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 mechanisms to build SR based VTNs with resource-aware SIDs

This document describes the MT based control plane mechanism for SR VTN
  • To distribute the per-VTN topology and resource information to network nodes and controller
Mechanisms in this draft

• MT-ID is reused as the control plane identifier of VTN
  • Use IS-IS Multi-topology (RFC 5120) for the advertisement of VTN topology
  • Use IS-IS SR extensions (RFC 8667 and draft-ietf-lsr-isis-srv6-extensions) to advertise topology-specific SR-MPLS SIDs or SRv6 Locators and SIDs

• Advertise topology-specific TE attributes for different VTNs
  • The advertisement of topology-specific link bandwidth is described
  • Other TE attributes may also be advertised in topology-specific manner
Updates in -02 version

• The document type is changed to informational
  • Based on the discussion and suggestion from the WG

• Add descriptions about forwarding plane behaviors

• 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 content of this document is stable

• Document type is now informational

• Authors would like to ask for WG adoption of this document
Thank You