A VTN Network YANG Module

draft-wd-teas-vtn-network-yang

TEAS WG
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VTN Network YANG Overview

- **Virtual Transport Network (VTN):**draft-ietf-teas-enhanced-vpn defines that **VTN contains subset of the physical network resources, with a customized network topology including a group of dedicated or shared nodes and links.**

- VTN network model is used to manage and monitor resources allocated to a VTN.

- **IETF Network Slice realization:**
  - When realizing NS through enhanced VPNs, a VTN can be used to deliver a set of VPN+ services, and the VTN network model can be used to provision the reserved resources for the services. The resources will be used to provide network characteristics required by services such as latency bounds, resiliency, etc.

![Diagram of VTN Network Model](image-url)
VTN Network Model Components

- VTN network model is designed as an augmentation to the network topology YANG model (RFC 8345)

Augmenting the list "ietf-network:link" with vtn attributes including "bandwidth-reservation" and "statistics"

Augmenting "ietf-network:network-types" with "vtn"

Augmenting "ietf-network" with vtn attributes:

- Bandwidth reservation
- Control plane
- Data plane
- Steering policy
VTN in Multi-Domain Use Cases

- The VTN network models of multiple domains can be interconnected to form an integrated VTN model, thus VPNs do not need to care about inter-domain
Next Step

• Solicit comments and reviews from WG
Backup
Differences with draft-liu-teas-transport-network-slice-yang

• Major differences:
  • draft-liu-teas-transport-network-slice-yang is a customer-facing YANG model, thus is 1:1 mapping to an IETF Network Slice service. While VTN network model could be used to aggregate multiple NS services.