Traffic Engineering and Service Mapping Yang Model
draft-lee-teas-te-service-mapping-yang-09

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TE-Service Mapping Model Update (1)

- The role of TE-service Mapping model is to create a mapping relationship between -
  - Services – L3SM, L2SM, L1CSM, etc.
  - TE topo, TE tunnel model and the ACTN VN Model

- **Update:** Generalized it by making the model to have direct mapping to TE-topo and TE-tunnel as well!

- This TE-service mapping model is needed to bind L3VPN, L2VPN, L1CSM specific service model with underlying TE-specific parameters.

- This binding will facilitate a seamless service operation with underlay-TE network visibility and control.
Issues discussed since IETF 101

• An independent yang model for TE & Service Mapping v/s an augmentation of service yang model
• Single mapping model to map any service to various levels in TE (VN/Topo/Tunnel)
• Multiple models for each type of service – augmentation of L1/2/3 SM models.

• This was discussed on the mailing list, discussions in favor of one TE & Service Mapping model that applied to all L1/2/3 SM models.
New VN/Tunnel Binding

- Customer could request a VPN service with a new VN/Tunnel not shared with other existing services.
  - Hard Isolation with deterministic characteristics
  - Hard Isolation
  - Soft Isolation

VN/Tunnel Sharing

- Customer could request a VPN where the tunnels can be shared with other existing VPNs.

VN/Tunnel Modify

- This mode allows the modification of the properties of the existing VN/tunnel (e.g., bandwidth) when VN/Tunnel Selection Mode is applied.

Reorganized Map Type (for VN/Tunnel selection policy)
• Introduced “Availability” for customer to indicate the level of availability.
  • 99.9999 %
  • 99.999 %
  • 99.99 %
  • 99.9 %
  • 99 %

• This needs to be translated into network level policies - protection/reroute policies associated with VN/Tunnels.
module: ietf-te-service-mapping
  +--rw te-service-mapping
     +--rw service-mapping
        +--rw mapping-list* [map-id]
           +--rw map-id         uint32
           +--rw map-type?      map-type
        +--rw (service)?
           |  +--:(l3vpn)
           |     |  +--rw l3vpn-ref?      -> /l3:l3vpn-svc/sites/site/site-id
           |  +--:(l2vpn)
           |     |  +--rw l2vpn-ref?      -> /l2:l2vpn-svc/sites/site/site-id
           |  +--:(l1vpn)
           |     |  +--rw l1vpn-ref?      -> /l1:l1cs/access/uni-list/UNI-ID
           |  +--rw (te)?
           |     |  +--:(actn-vn)
           |     |     |  +--rw actn-vn-ref?     -> /vn:actn/ap/access-point-list/access-point-id
           |  +--:(te-topo)
           |     |  +--rw vn-topology-id?  te-types:te-topology-id
           |     |  +--rw abstract-node?   te-types:te-abstract-node
           |     |  +--rw te-tunnel?      te-types:te-tunnel
        +--rw site-mapping
           +--rw mapping-list* [map-id]
              +--rw map-id         uint32
              +--rw (service)?
                 |  +--:(l3vpn)
                 |     |  +--rw l3vpn-ref?      -> /l3:l3vpn-svc/sites/site/site-id
                 |  +--:(l2vpn)
                 |     |  +--rw l2vpn-ref?      -> /l2:l2vpn-svc/sites/site/site-id
                 |  +--:(l1vpn)
                 |     |  +--rw l1vpn-ref?      -> /l1:l1cs/access/uni-list/UNI-ID
                 |  +--rw (te)?
                 |     |  +--:(actn-vn)
                 |     |     |  +--rw actn-vn-ref?     -> /vn:actn/vn/vn-list/vn-id
                 |     +--:(te)
                 |        |  +--rw ltp?           te-types:te-ltp
Next Step

• This is quite a useful feature
• The authors believe that this draft is a good base for WG adoption.
Thanks a bunch!