Yang Data Model for Layer 3 TE Topologies

draft-ietf-teas-yang-l3-te-topo-04

Xufeng Liu (Volta Networks)
Igor Bryskin (Huawei Technologies)
Vishnu Pavan Beeram (Juniper Networks)
Tarek Saad (Juniper Networks)
Himanshu Shah (Ciena)
Oscar Gonzalez De Dios (Telefonica)
Augmentation Hierarchy

- L3 TE Topology augments L3 Topology and references TE Topology.
- Packet extension module augments ietf-te-topology.
Changes Since Last Revision

- Aligned with latest dependencies
  - Used te-types in draft-ietf-teas-yang-te-types instead of draft-ietf-teas-yang-te.
  - Used module ietf-te-packet-types for packet related types.
Planned Changes

- Performance metrics on a TE link
  - Use one-way performance metrics

```plaintext
augment /nw:networks/nw:network/nt:link/tet:te
  /tet:te-link-attributes:
  +--ro performance-metrics-one-way
      |  +--ro one-way-delay?  Uint32
      ... 
  +--ro performance-metrics-two-way
      |  +--ro two-way-delay?  Uint32
  
  +--rw throttle
      +--rw threshold-out
          |  +--rw one-way-delay?  uint32
          |  +--rw two-way-delay?  uint32
          |  +--rw one-way-min-delay?  uint32
          |  +--rw one-way-max-delay?  uint32
          |  +--rw one-way-delay-variation?  uint32
          |  +--rw one-way-packet-loss?  decimal64
          |  +--rw two-way-min-delay?  uint32
          |  +--rw two-way-max-delay?  uint32
          |  +--rw two-way-delay-variation?  uint32
          |  +--rw two-way-packet-loss?  decimal64
```
Next Steps

- Complete and confirm performance metrics.
- Ask for YANG doctor's review.
- Welcome further reviews and suggestions.
- Working Group Last Call after completing above.
Yang Data Model for SR and SR TE Topologies

Xufeng Liu (Volta Networks)
Igor Bryskin (Huawei Technologies)
Vishnu Pavan Beeram (Juniper Networks)
Tarek Saad (Juniper Networks)
Himanshu Shah (Ciena)
Stephane Litkowski (Orange)
SR (Segment Routing) Topology

- Augment layer 3 network topology model
SR (Segment Routing) TE Topology

- Multiple inheritance:
  - Is both SR topology and layer 3 TE topology model.
  - Uses multiple network types: “l3-te” and “sr”.

---

```
SR Topology  
ietf-sr-topology

Layer 3 TE Topology  
ietf-l3-te-topology
```

---

```
SR TE Topology
```
Changes Since Last Revision

- Aligned with latest dependencies
  - Used the groupings from the latest draft-ietf-spring-sr-yang-12.
Changes Since Last Revision

- Fixed information source modeling

  - There are use-cases where different instances of the same source protocol provide the topology information.

  - Added a leaf to indicate the instance of the information source.

```yaml
augment /nw:networks/nw:network/nw:node/l3t:l3-node-attributes:
  +--rw sr
    +--ro information-source?      enumeration
    +--ro information-source-instance?  string
    +--ro information-source-state
    +--ro credibility-source-preference?  Uint16

augment /nw:networks/nw:network/nt:link/l3t:l3-link-attributes:
  +--rw sr!
    +--ro information-source?      enumeration
    +--ro information-source-instance?  string
    +--ro information-source-state
    +--ro credibility-source-preference?  uint16
```
Next Steps

- Ask for YANG doctor's review.
- Welcome further reviews and suggestions.
- Working Group Last Call after completing above.