A Yang Data Model for WSON Optical Networks

draft-ietf-ccamp-wson-yang-08.txt

Y. Lee, D. Dhody, X. Zhang, A. Guo (Huawei)

V. Lopez (Telefonica)

D. King (U. of Lancaster)

B. Yoon (ETRI)

R. Vilalta (CTTC)

Updates for this version (08)

- NMDA Compliant Model
- Introduced a new TE-WSON-Type model to place all WSON specific information such as:
  - WSON node types,
  - Application code based on ITU-T G.698.2,
  - Wavelength Assignment Policy.
- Augment TE-topology model and keep only WSON specific link attributes.

IETF-WSON-TOPOLOGY Model

module: ietf-wson-topology
  augment /nd:networks/nd:network/nd:network-types/tet:te-topology:
    +--rw wson-topology!
  augment /nd:networks/nd:network/nd:node/tet:te/tet:te-node-attributes/tet:connectivity-matrices/tet:connectivity-matrix:
    +--rw wavelength-availability-range?   te-wson-types:wavelength-range-type
  augment /nd:networks/nd:network/lnk:link/tet:te/tet:te-link-attributes:
    +--rw channel-num?   int32
    +--rw first-channel-frequency?   decimal64
    +--rw channel-spacing?   decimal64
    +--rw available-wavelength-info* [priority]
      +--rw priority   uint8
      +--rw wavelength-availability-range?   te-wson-types:wavelength-range-type
  augment /nd:networks/nd:network/nd:node/tet:te/tet:te-node-attributes:
    +--rw wson-node
      +--rw node-type?   identityref
  augment /nd:networks/nd:network/nd:node/tet:te/tet:tunnel-termination-point:
    +--rw available-operational-mode*   te-wson-types:operational-mode
    +--rw operational-mode?   te-wson-types:operational-mode

Current Status & Next Steps

- To add some impairment data on the link model that can be used by the MDSC for path computation.

A Yang Data Model for WSON Tunnel

draft-lee-ccamp-wson-tunnel-model-03

Y. Lee, D. Dhody, A. Guo (Huawei)

V. Lopez (Telefonica)

D. King (U. of Lancaster)

B. Yoon (ETRI)

R. Vilalta (CTTC)

Overview

- WSON TE Tunnel Model (ietf-te-wson)
- Augments ietf-te for basic tunnel configuration and global path constraints for wson wavelength assignment policy.
- Augments ietf-otn-types for source and destination client signal.
- Augments ietf-te-wson-types for wavelength assignment policy used for configuration.
- Augments ietf-te-path-computation for rpc mode of path computation request/reply.
- NMDA Compliant Model

IETF-TE-WSON Module

```
module: ietf-wson-tunnel
  augment /te:te/te:tunnels/te:tunnel:
    +--rw src-client-signal?   identityref
    +--rw dst-client-signal?   identityref
  augment /te:te/te:tunnels/te:tunnel/te:state:
    +--ro src-client-signal?   identityref
    +--ro dst-client-signal?   identityref
  augment /te:te/te:globals/te:named-path-constraints/te:named-path-
constraint:
    +--rw wavelength-assignment?   identityref
  augment /te:tunnels-rpc/te:input/te:tunnel-info/tepc:request-list:
    +---- src-client-signal?       identityref
    +---- dst-client-signal?       identityref
    +---- wavelength-assignment?   identityref
```

Current Status & Next Steps

- The authors believe that this draft is a good base for WG adoption.