

# A Yang Data Model for WSON Optical Networks

draft-lee-ccamp-wson-yang-02

Y. Lee, D. Dhody, X. Zhang (Huawei)  
A. Guo (Adva Optical)  
V. Lopez (Telefonica)  
D. King (Univ. Lancaster)

# Major Changes (from v1)

- Augmented from Generic TE-Topology draft:
  - <https://datatracker.ietf.org/doc/draft-ietf-teas-yang-g-te-topo/>
- Sorted out overlap between WSON and flexi-grid drafts.
  - WSON and Flexi-grid will be complemented to each other to give full L0 specific TE YANG model augmentation from the aforementioned Generic TE-Topology Draft.

# Main Scope of this draft

- Connectivity Matrix Model
- Resource Pool Model
- Port Wavelength Restriction (to be supplied)
- Wavelength Availability on Links (to be supplied)

# WSON-Topology Module

```
module: ietf-wson-topology
augment /tet:te-topologies/tet:topology/tet:topology-types/tet:tetopology:
  +--rw wson-topology
augment /tet:te-topologies/tet:topology/tet:node/tet:te-nodeattributes/
tet:connectivity-matrix:
  +--rw wson-matrix
  +--rw device-type? devicetype
  +--rw dir? directionality
  +--rw matrix-interface* [in-port-id]
  +--rw in-port-id wson-interface-ref
  +--rw out-port-id? wson-interface-ref
augment /tet:te-topologies/tet:topology/tet:node/tet:te-nodeattributes/
tet:te-link:
  +--rw wavelength-available-bitmap* boolean
augment /tet:te-topologies/tet:topology/tet:node:
  +--rw resource-pool* [resource-pool-id]
  +--rw resource-pool-id uint32
  +--rw pool-state? boolean
  +--rw matrix-interface* [in-port-id]
  +--rw in-port-id wson-interface-ref
  +--rw out-port-id? wson-interface-ref
```

# Next Steps

- To be adopted by CCAMP WG as a starting point of the work.
- Continued to work on the model for maturity.
  - More to be done on resource block models, etc.