

# A YANG Data Model for Layer 1 Network Topology

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draft-zhang-i2rs-l1-topo-yang-model-01.txt

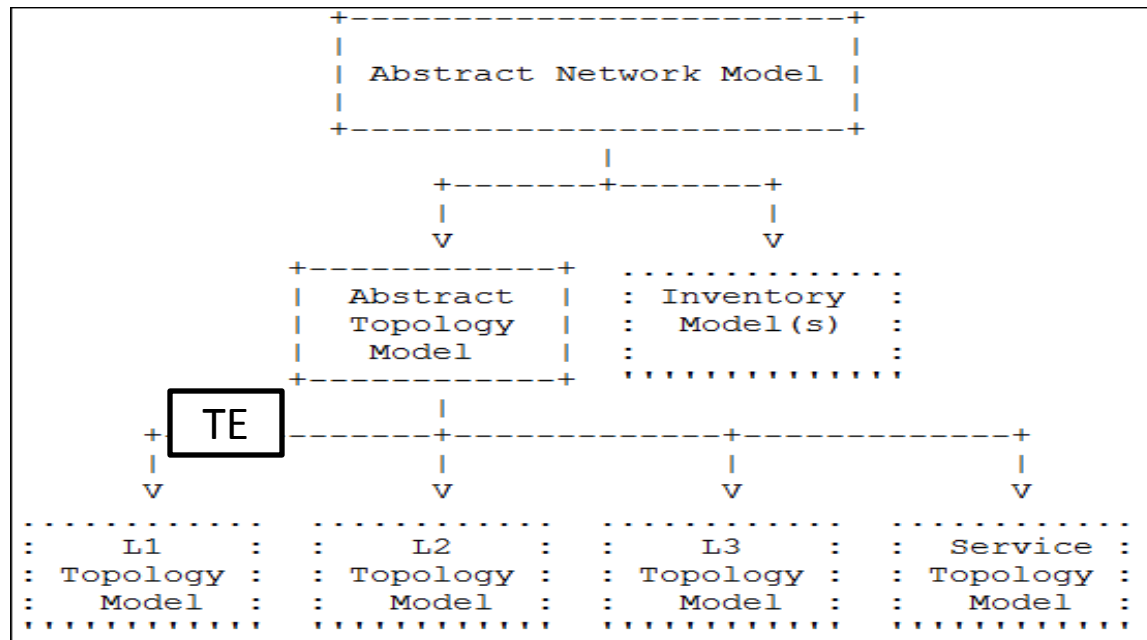
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# Scope

- YANG data model for Topology of Layer 1 networks;
- Data plane independent - can be augmented to represent OTN, SDH/SONET, DWDM.



# L1 Topo YANG Tree Overview (1/2)

```
module: ietf-layer1topology
  +--rw layer-one-topology
    +--rw topology* [topology-id]
      +--rw topology-id          topology-id
      +--rw name?                string
      +--rw supporting-topology* [topo-ref]
        | +--rw topo-ref      leafref
      +--rw node* [node-id]
        | +--rw node-id          node-id
        | +--rw interface* [interface-id]
        | | +--rw interface-id      interface-id
        | | +--rw interface-name?   if:interface-state-ref
        | | +--rw adaptation-capability
        | +--rw connectivity-matrix* [id]
        ...
```

# L1 Topo YANG Tree Overview (2/2)

```
| +--rw link* [link-id]
|   +--rw link-id          link-id
|   +--rw local
|     +--rw local-node      leafref
|     +--rw local-interface leafref
|   +--rw remote
|     +--rw remote-node     leafref
|     +--rw remote-interface leafref
+--rw supporting-path* [supporting-path-index]
|   ... (information associated)
+--rw attributes
|   ...
+--rw max-link-bandwidth?
+--rw unreserved-bandwidth* [priority]
|   +--rw priority      uint8
|   +--rw bandwidth?   decimal64
+--ro distance?                uint32
|   ...
+--rw switching-capability?    switching-capabilities
+--rw encoding?                encoding-types
+--rw switching-capability-specific
+--rw srlg
|   ...
```

# How to Use This Model?

- to obtain a whole view of the network topology information of its interest;
- to receive notifications with regard to the information of the change of the network topology of its interest;
- enforce the establishment/update of a network topology with the characteristic specified in the data model;

# Next Step

- Next step plan
  - Get aligned with
    - draft-clemm-i2rs-yang-network-topo
    - draft-liu-teas-yang-te-topo
- Welcome review and collaboration
- Comments?