A YANG Data Model for Layer 1 (ODU) Network Topology

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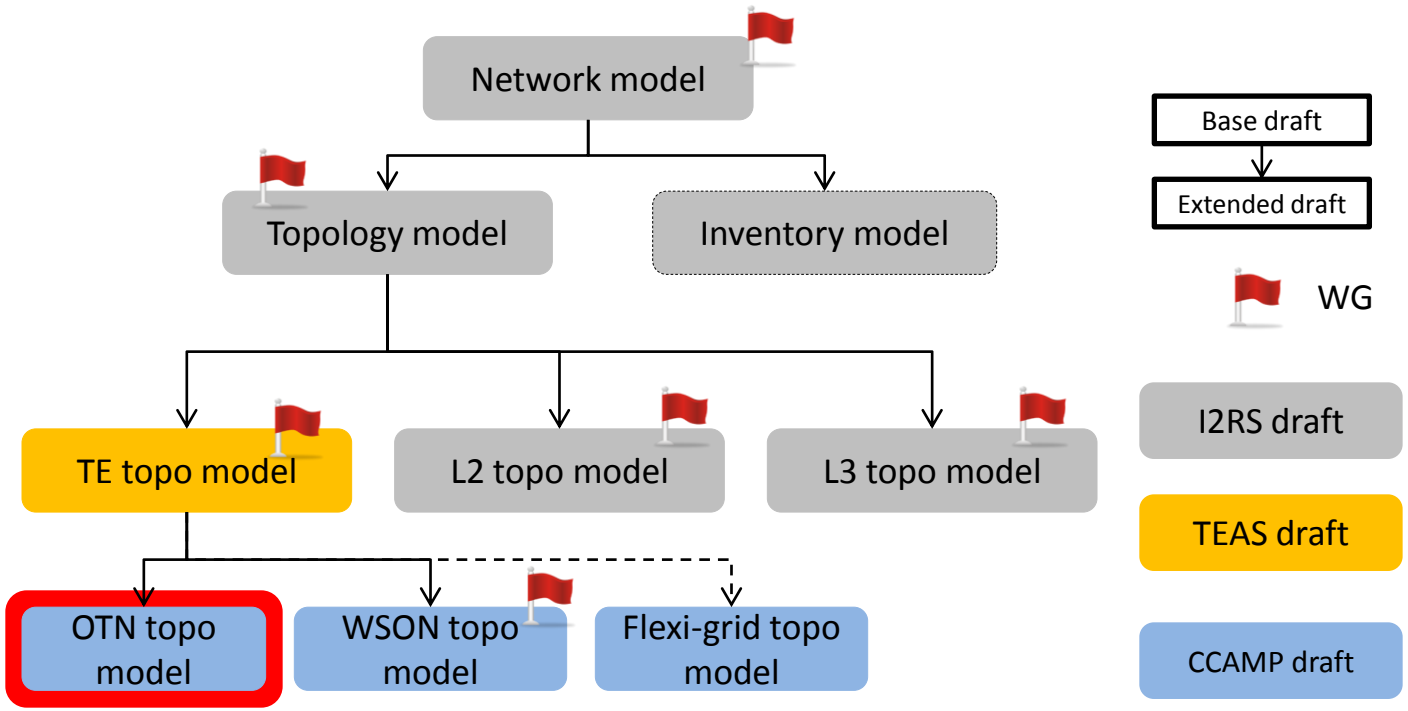
draft-zhang-ccamp-l1-topo-yang-03.txt

Authors: Xian Zhang (zhang.xian@huawei.com)
Baoquan Rao (raobaoquan@huawei.com)
Anurag Sharma (ansharma@infinera.com)
Xufeng Liu (xufeng.liu@ericsson.com)
Contributor: Sergio Belotti (sergio.belotti@nokia.com)

Scope

- YANG data model for Topology of OTN networks (Layer 1);
- Positioning this model in a bigger picture



L1/ODU Topo YANG Tree Overview (1/2)

```
module: ietf-odu-topology
augment /nd:networks/nd:network/nd:network-types/tet:te-topology:
   +--rw l1-network!
augment /nd:networks/nd:network:
   +--rw name?   string
augment /nd:networks/nd:network/nd:node:
   +--rw name?   string
augment /nd:networks/nd:network/nd:node/lnk:termination-
point/tet:te/tet:config:
   +--rw client-facing?          empty
   +--rw tpn?                    uint16
   +--rw tsg?                    identityref
   +--rw protocol-type?          identityref
   +--rw fec-enabled?            boolean
   +--rw adaptation-type?        adaptation-type
   +--rw sink-adapt-active?      boolean
   +--rw source-adapt-active?    boolean
   +--rw timeslots
      +--rw values*   uint8
augment /nd:networks/nd:network/nd:node/lnk:termination-
point/tet:te/tet:state:
   +--ro client-facing?          empty
   +--ro tpn?                    uint16
   +--ro tsg?                    identityref
   +--ro protocol-type?          identityref
```

L1/ODU Topo YANG Tree Overview (2/2)

```
   +--ro fec-enabled?              boolean
   +--ro adaptation-type?          adaptation-type
   +--ro sink-adapt-active?        boolean
   +--ro source-adapt-active?      boolean
   +--ro timeslots
      +--ro values*    uint8
augment /nd:networks/nd:network/lnk:link/tet:te/tet:config:
   +--rw odu-type?    identityref
   +--rw distance?    uint32
augment /nd:networks/nd:network/lnk:link/tet:te/tet:state:
   +--ro odu-type?    identityref
   +--ro distance?    uint32
augment /nd:networks/nd:network/nd:node/tet:te/tet:tunnel-termination-
point/tet:state:
   +--ro odu-Type?    identityref
augment /nd:networks/nd:network/lnk:link/tet:te/tet:config/tet:te-link-
attributes/tet:schedules/tet:schedule:
   +--rw odu-type?      identityref
   +--rw oduflex-bw?    uint32
augment /nd:networks/nd:network/lnk:link/tet:te/tet:state/tet:te-link-
attributes/tet:schedules/tet:schedule:
   +--ro odu-type?      identityref
   +--ro oduflex-bw?    uint32
```

Diff: 03 as compared to 02

- Augmented from ietf-te-topology.yang;
  - Removing duplicated attributes;
- Adding ODU-specific (most are) attributes, e.g.:
  - TSG, TPN etc.;
  - ODU-Type;
  - Scheduled ODU link information;

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

- **review and comments?**
  - Thank Huub Van Helvoort for detailed comments, working on reply and draft updates;
- **More joint work:**
  - Work with ietf-te-topology.yang/ietf-wson-topology.yang to see if any attributes are common that then does not belong to this model.
- **WG adoption?**