YANG Data Model for IEEE 1588v2

draft-ietf-tictoc-1588v2-yang-05

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YANG Hierarchy

```
module: ietf-ptp-dataset
   +--rw instance-list* [instance-number]
   |  +--rw instance-number          uint16
   |  |  + ......
   |  +--rw default-ds
   |  |  + ......
   |  +--rw current-ds
   |  |  + ......
   |  +--rw parent-ds
   |  |  + ......
   |  +--rw time-properties-ds
   |  |  + ......
   |  +--rw port-ds-list* [port-number]
   |     +--rw port-state? port-state-enumeration
   |     +--rw underlying-interface? if:interface-ref
   +--rw transparent-clock-default-ds
   |  + ......
   +--rw transparent-clock-port-ds-list* [port-number]
      + ......
```

Newly added!

Summary of Changes in V.05

- **Updates in draft-ietf-tictoc-1588v2-yang-05**
  - ✓ the support to reference the underlying interface used by a PTP port, so that it is easier to trace the physical topology of an IEEE 1588 time synchronization network
  - ✓ A new section 2.2 is added, which discusses why a single-tree hierarch is used

Why a single YANG Module tree?

- IEEE 1588v2 is widely implemented, but its dataset members cannot be simply classified into configuration and states
- According to IEEE 1588v2 info model, each member is categorized into 3 classes:
  - Configurable
  - Dynamic
  - Static
- The class for a member can be changed, e.g., port-state in port-ds may be configurable or dynamic (i.e., read-only) depending on the implementations and applications, a combined tree is a good representation of this behavior
- Actually, consistent with the up to date "Network Management Datastore Architecture" (NMDA) combined tree, according to one of the NMDA co-authors

Status in the industry

- **The newest 1588v2 YANG module is available on the github site:**

  https://github.com/YangModels/yang/tree/master/standard/ietf/DRAFT

- **Quite a few vendors have shown their interests in implementing this YANG module, publication will further add its momentum**
- **In June 2017, ITU-T SG15 approved a new WG item on "Sync Management", targeted at developing sync management info models for transport equipments, thus, consistency with the 1588 YANG is necessary to avoid any duplicate work**

Next Step

- The last version is stable for some time, more feedback?
- Ready for WG Last Call?

Thank You