

IEEE 1588 YANG Update

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Introduction

- IEEE standard 1588 is a commonly used protocol for time synchronization over Ethernet networks
 - ITU-T has standard profiles for IEEE 1588 equipment
- Management of IEEE 1588 equipment is important
 - Roadmap for IEEE 1588 YANG is needed

YANG for IEEE 1588-2008

- Project of the IETF TICTOC Working Group
 - In cooperation with IEEE 1588 Working Group
- Current draft: <https://datatracker.ietf.org/doc/draft-ietf-tictoc-1588v2-yang>
 - Limited to published 1588 revision (2008)
 - Specifies the 1588 "data sets" (e.g. defaultDS) as YANG
- Status
 - Completed Working Group Last Call
 - Incorporated comments from YANG experts and 1588 experts
 - Next step: IESG Last Call
 - Final stage of open community review prior to RFC publication

YANG for Revision of IEEE 1588

- IEEE 1588 Working Group is revising the standard
 - Likely to be published in 2018 (i.e. IEEE 1588-2018)
 - This project did not have YANG in its scope
- Likely roadmap for IEEE 1588 revision YANG
 - 1588 Working Group starts project after revision publishes
 - Add revision's features to 1588-2008 YANG from TICTOC
 - Using YANG compatibility rules for revising a module
 - Publish as part of IEEE 1588 document

YANG for 1588 Profiles (1 of 2)

- Each 1588 profile will develop its own YANG module
 - Project within profile's standard organization
 - Existing ITU-T profiles are based on 1588-2008
- Recommendation: Augment 1588 standard module
 - Re-use 1588 base features; add only the profile specifics
 - Avoid needless repetition of nodes

YANG for 1588 Profiles (2 of 2)

- Example: YANG for ITU-T G.8275.1

- After 1588-2008 becomes RFC,
ITU-T G.8275.1 module can have:

- ```
import ietf-ptp { prefix "ptp"; }
augment "/ptp:ptp/ptp:instance-list/ptp:default-ds" {
 description
 "ITU-T G.8275.1 new members for 1588 default data set.";

 leaf local-priority {
 type uint8;
 ...
 }
 ...
}
```

**Thank You**