

IEEE 1588 Update

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TICTOC Working Group
IETF 91 Honolulu, Nov 2014

Face to face meeting

- Austin Texas
- Sept.
- 1.5 days, short meeting after ISPCS
- Focused mostly on Archihtectural issues

Changes agreed to

- Agreement only at conceptual level
 - standards language not presented yet
- Port states made optional
 - Listening, pre-master, uncalibrated
 - Not directly observable by other devices
 - Helps avoid rogue frames
 - Other mechanisms in place also do this
 - Helps make IEEE 802.1AS a true 1588 profile

Changes agreed to

- notSlave configuration for BC port
 - Part of ITU-T G.8275.1 (telecom profile for time)
 - Prevents devices in certain parts of network from becoming GM
 - Can lead to port state thrashing if not used carefully
- Deprecated features
 - GM clusters, Alternate masters
 - Not used in any profile
 - Other mechanisms preferred

Changes agreed to

- Splitting PTP into media dependent and media independent layers
 - E.g. Ethernet
 - Consistent with IEEE 802.1AS
 - Makes it easier to add certain mappings
 - EPON, WiFi
 - Long term vision is that media dependent layer moves to media defining standards bodies

Other discussions

- Discussions but no consensus
- Physical layer syntonization
 - From high accuracy committee
- Security
 - Three main components
 - Strong source authentication (similar to NTS?)
 - Hop by hop security (addresses TC issue)
 - Network redundancy: mulit-master, multi-path

Next meeting

- San Francisco
- January 27-30
- To join IEEE 1588, send email to IEEE 1588 working group secretary:
- Silvana Rodrigues: silvana.rodrigues@idt.com