IEEE 802.1

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Regarding: Information on PTP port states not used in IEEE 802.1AS

Dear Mr. Eidson and Mr. Arnold:

IEEE P1588-Rev/D1.1, subclause 17.7 specifies an optional feature that permits PTP profiles to specify operation using a reduced set of the current PTP Port states. Specifically, a PTP profile may specify that the DISABLED, FAULTY, LISTENING, PRE_MASTER, and/or UNCALIBRATED states are not used.

The IEEE 802.1 working group has become aware, via informal communication, that the IEEE P1588 committee would like to know what aspects of this optional feature are being used in IEEE P802.1AS-Rev. The purpose of this liaison is to provide this information to the IEEE P1588 committee.

IEEE P802.1AS-Rev does not use the FAULTY, LISTENING, PRE_MASTER, and UNCALIBRATED states. IEEE P802.1AS-Rev does use the DISABLED state. The non-use of FAULTY, LISTENING, PRE_MASTER, and UNCALIBRATED is specified in IEEE P802.1AS-Rev, i.e., the non-use of these states is not configurable as an option in IEEE P802.1AS-Rev. In addition, the use of DISABLED is specified in IEEE P802.1AS-Rev, i.e., the use of this state is not configurable as an option in IEEE P802.1AS-Rev. This means that IEEE P802.1AS-Rev does not need to explicitly specify the PTP attributes PD, PF, PL, PP, and PU, which are described in 17.7.1 (Table 124) and 9.2.5 of IEEE P1588-Rev/D1.1. The operation of the IEEE 802.1AS state machines is equivalent to operation of the IEEE 1588 state machine with PD set to TRUE and PF, PL, PP, and PU set to FALSE.

For information, IEEE P802.1AS-Rev also does not use the optional foreign master data set and foreign master qualification.

Therefore, please ensure that the PF, PL, PP, and PU optional features are included in the revised IEEE Std 1588. In addition, please ensure that the foreign master data set / foreign master qualification remains an optional feature.

Please let us know if you have any questions or would like additional information.

Thank you very much.

Respectfully submitted,

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CC: John Messenger, Vice-chair, IEEE 802.1 WG;
Janos Farkas, Chair, IEEE 802.1 TSN Task Group