



Update on “Announce”

on 2022-09-14

at the IEEE 802.1 Interim Meeting
during the P802.1DG Session

Timeline

- On 2022-07-14 the IEEE 802.1 TSN profiles sent a Liaison letter to IEEE 1588 on the necessity of Announce Messages (<https://www.ieee802.org/1/files/public/docs2022/liaison-8021to1588-announce-message-0722-v01.pdf>) during the Montreal Plenary Session
- This was discussed during the IEEE 1588 Plenary on 2022-07-27
- Various emails were exchanged based on a draft response document
- On 2022-08-09 a TSN call was held with members from both working groups in attendance
- Further email exchange happened to further the understanding

Status of ongoing Discussions

- The Announce Messages are an integral part of IEEE 1588!
- Their main purpose is to relay management (not time) information from the Grand Time Transmitter to the Time Receivers within the gPTP Domain.
- In IEEE 1588 the Sync/FollowUp mechanism is reserved for communication of time information (not management) between Time Transmitter and Time Receiver on a Link Segment.
- While required in general, it is not totally clear in IEEE 1588 when exactly and how often the Announce should be sent (at link-up, before or after the announce interval?).
- Arguments have been exchanged, whether the “Follow_Up information TLV” from [AS]:11.4.4.3, with information about the GTT’s ClockSource is within the spirit of IEEE 1588.
- Arguments have been exchanged, whether Autosar’s “Offset Time Base” ([AR897]:5.3.1.2) is duplicating the “ALTERNATE_TIME_OFFSET” TLV ([1588]:16.3).
- Autosar also introduced two flags, which communicate the status of an upstream Relay Instance (Time Aware Bridge), which may be considered management information by IEEE 1588.

- Does not following IEEE 1588’s spirit on Announce messages cause an interoperability issue?

This is my personal view - It is certainly not a statement from any of the two working groups!



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