



Question(s): 13/15

Stockholm, 5-9 December 2022

LS
(Ref.: TD90R1/WP3)**Source:** ITU-T Study Group 15**Title:** Liaison on timestamping capabilities

LIAISON STATEMENT**For action to:** IEEE 802.3**For information to:****Approval:** Q13/15 meeting (Stockholm, 5-9 December 2022)**Deadline:** 24 March 2023

Contact: Stefano Ruffini
Rapporteur Q13/15

E-mail: [REDACTED]

Contact: Silvana Rodrigues
Associate Rapporteur Q13/15

Email: [REDACTED]

Abstract: Liaison on timestamping capabilities related to PTP and Ethernet that are available from an IEEE 802.3 standard point of view.

Q13/15 is aware of the time errors that can occur due to different ways of implementing time stamping for the PTP protocol. During this work we have identified a number of characteristics related to time-stamping process that would be beneficial to information exchange between peer equipment at the two ends of an Ethernet link.

In order to detect the magnitude of the time error caused by different time-stamping implementations, Q13/15 has ongoing work to define the information to be provided to the PTP protocol about time-stamping capabilities related to IEEE 802.3 clause 90 Time Sync interface.

In the discussion the following capabilities have been listed (see Note):

1. Idle insertion
2. Idle removal
3. Alignment marker insertion
4. Alignment marker removal
5. Code Word marker insertion
6. Code Word marker removal
7. Avoid sending messages at the AM/CWM insertion point
8. Timestamp compliant to IEEE802.3cx

9. Handling position of the SFD when FEC/PCS is in use per IEEE802.3 Clause 90.7

Note – Each capability should be indicated for both the TX and RX directions. It should also be indicated whether the capability can be changed dynamically.

For the PTP stack to gain knowledge about the capabilities mentioned above, Q13/15 foresees an interface between the PTP stack and the physical interface providing this information. Q13/15 kindly asks IEEE 802.3 to elaborate on what and how this kind of information can be provided from the physical layer in general; answers to the following questions are of particular interest.

Questions:

1) Which of the capabilities in the list can be retrieved from an implementation of an Ethernet interface?

2) Are the capabilities fixed or can they be configured?

3) Are there other capabilities that IEEE802.3 thinks are relevant for time-stamping accuracy?

We look forward to fruitful cooperation.
