

# Issue Report

## Report ID

IREP-2026-02-05-01

## Affected Products

- syn1588 PTPv2 Stack
  - up to and including v1.17

## Description

### Severity

Critical, if triggered

### Trigger

The PTP Stack internal timing mechanism that provides timeouts for the core operation assumes that a single execution of the PTP Stack main execution loop takes at least 1 microsecond to complete. This is true for almost all systems as the loop contains also various system calls and context switches between user and kernel space.

### Frequency

But this assumption no longer holds for modern high performance systems, which can trigger the issue extremely often during normal operation.

### Effect

Timeouts are wrongly calculated and will lead to higher message intervals than expected.

An example is when operating as PTP Slave in sending of Delay Request messages. If the Trigger Frequency (as explained above) is high this can lead to a derivation of the message interval from, e.g., 250 ms to multiple seconds. The amount of derivation depends on the performance of the underlying system.

## **Fix**

A code-fix will be applied for v1.18 of the syn1588 Software Suite that will eliminate this issue.

## **Workaround**

There is no feasible workaround for the trigger.

The effect can be detected by manual analysis of the PTP Stack operation

It is recommended to update effected versions of the PTP Stack to v1.18 or newer or apply source patches (in case you have a PTP Source Code license).