

Issue Report

Report ID

IREP-2024-02-28-02

Affected Products

- syn1588 PTPv2 Stack
 - v1.9 ... v1.16
 - operation as PTP Slave

Description

Severity

Critical, if triggered

Trigger

If PTP messages are lost at the wrap-around of the sequence ID this can bring the PTP engine into a state where it ignores all subsequent messages of the effected message type until the next sequence ID wrap-around.

Frequency

If a syn1588 technology-based hardware is used this will have a rare occurrence for the syn1588 PTPv2 default configuration.

If a non-sy1588 technology-based hardware is used the frequency of this trigger is hardware dependent and can be high for the default syn1588 PTPv2 configuration.

Effect

In PTP Slave operation (1-step and 2-step), the syn1588 PTPv2 Stack will not use messages of the effected type until the next wrap-around AND the messages at this wrap-around have been received successfully.

The PTP Stack will report multiple consecutive messages for the effected message type similar to:

SyncMsg: Discarding message with invalid sequenceID [expected {65534}, got {1}]

...

SyncMsg: Discarding message with invalid sequenceID [expected {65534}, got {2}]

...

SyncMsg: Discarding message with invalid sequenceID [expected {65534}, got {3}]

Fix

A code-fix will be applied for v1.17 of the syn1588 Software Suite that will eliminate this issue.

Workaround

There is no workaround for the trigger.

The effect can be detected and a restart of the PTP Stack can be applied to solve the issue.

It is recommended to update effected versions of the PTP Stack to v1.17 or newer.