Common Public Radio Interface

Time **S**ensitive **N**etworking

CPRI discussion on Synchronization & Timing

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Introduction

- CPRI would like to clarify with TSN working group its scope of work concerning Timing & Syntonization (frequency synchronization).

- AVB Profile and AVB requirements are taken as example when given the background information to the questions.

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AVB bridges

- CPRI understanding (please correct if necessary) :
  - All AVB bridges shall be also 802.1 AS compliant
  - Is it the same assumption for "802.1 CM bridges" ?

- 802.1 AS Requirements
  - +or-500 ns accuracy (Audio specification driven)
  - 100 PPM crystal Accuracy, 1PPM / sec max drift.
  - Clock >= 25 MHz => 40 ns Timestamp Accuracy or lower.

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802.1 AS

- CPRI understanding (please correct if necessary) :
  - AVB bridges using 802.1 AS are not capable to support other 1588V2 profiles.
  - Bridge Syntonization is logical not physical.
    - Such profiles including 802.1AS + SyncE could exist.

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CPRI Questions to TSN

- Questions:
  - Are timing services within TSN scope of work (as it was for AVB) ?
    - Does TSN plan to tighten 802.1 AS requirements ?
    - Will there be any dependencies between 802.1CM & 802.1 AS ?
    - Could there be some TSN profile supporting 1588V2?

  - Is Syntonization within TSN scope of work?
    - Or external solutions included in TSN profiles (SyncE etc …)

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