Additional requirements

to

60802-industrial-requirements-0918-v10.pdf

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1.1 General

- The TSN-IA Profile shall support the following configuration models:
  - centralized
  - hybrid
  - fully distributed

1.2 Synchronization

- When a bridge generates log messages the Universal Time (see R6.1) shall be used as primary timestamp. Log messages shall also contain a incrementing number (log order). When relevant the log message should also contain the corresponding Working Clock value (see R6.2).

- Given qualified SW and HW, time synchronization mechanism(s) of 60802 shall be available to be used by safety components

1.4.4 TSN Domain Protection

- All nodes are allowed to send unscheduled asynchronous frames at arbitrary times

1.8 DCS Reconfiguration

- Support of load balancing between devices, or also virtual controllers, shall be assured, for instance by seamless switchover of streams from one to another device

  (also required for High Availability, partially covered by R8)

1.9 Further Industrial automation use cases

Security:

- IEC 62443 part 3-3 shall be considered in the TSN-IA profile

Firmware/Configuration Update:

- A standardized protocol/procedure to update the configuration and/or the firmware of a bridge shall be specified

- The TSN-IA profile shall define a standardized way(s) how a device signals the progress of a firmware or configuration update