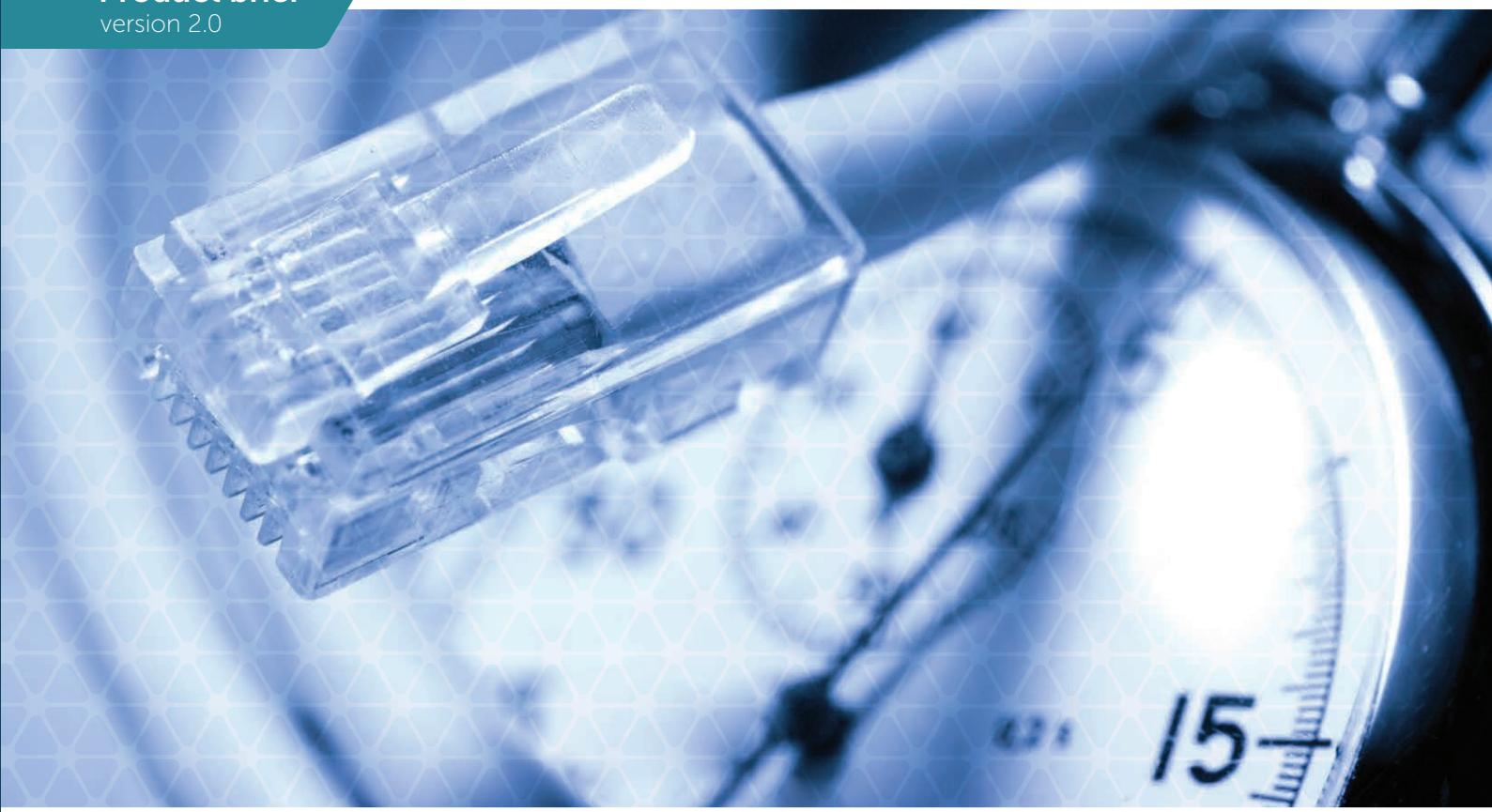


WanStaX Timing and Synchronisation Control

IEEE 1588-2008 PTP and SyncE

Product brief

version 2.0



CIVICA

Transforming the way you work

Ethernet is now the preferred transport technology in the wide area network (WAN) arena, which has been historically dominated by synchronous SONET/SDH technologies.

This brings about a requirement for mechanisms for frequency synchronization over Ethernet packet networks to facilitate the interoperability of carrier Ethernet and legacy synchronous networks.

Civica's WanStaX portfolio includes both industry standard mechanisms for distributing synchronisation over packet networks – namely IEEE 1588 and Synchronous Ethernet.

Unlike any other IEEE 1588 PTP solution in the market today, Civica's WanStaX components supports all 3 clock configurations with WinPath:

- ▶ Ordinary Clock
- ▶ Boundary Clock
- ▶ Transparent Clock

Both timing control technologies are available for immediate use pre-integrated with Microsemi's WinPath Network Processor Portfolio.

Compatibility

- ▶ Microsemi's WinPath network processor family including WinPath3, WinPath3SL and WinPath4 running WDDI 4.2 or later.

Deliverables

- ▶ Software provided in a mixture binary and source code, making it completely configurable.
- ▶ Simulation package allowing accelerated x86-based host development and testing.
- ▶ Civica offers support and maintenance for all software provided.
- ▶ Civica also offers Professional Services from a pool of expert staff that has provided specialist WinPath capability to a large number of customers worldwide.

IEEE 1588-2008 Precision Time Protocol (PTP)

The Precision Time Protocol enables the transfer of time information across packet-based networks allowing clock synchronization with sub-microsecond phase accuracy. PTP provides:

- ▶ Frequency synchronization
- ▶ Time synchronization
- ▶ Management functions

Supported Profiles	IEEE 1588-2008 Default Delay Request Response IEEE 1588-2008 Default Peer-to-Peer Delay ITU G.8265.1 (Telecom Profile)
Supported Clock Configurations	Ordinary Clock Boundary Clock Transparent Clock
Best Master Clock Algorithm (BMC) Support	Yes
User-defined BMC Support	Yes
Optional 1588-2008 Features Supported	Unicast Negotiation Unicast Discovery Hybrid Mode Management Functions Transparent Clock Synchronization
Interoperability with SyncE	Yes
Transport Type	Transport-Agnostic
Maximum Number of Protocol Instances	Configurable, Subject to Application

Synchronous Ethernet (SyncE)

SyncE enables the transfer of frequency across packet-based networks using the Ethernet physical layer. SyncE provides:

- ▶ Frequency synchronization
- ▶ Interoperability with existing SDH/PDH deployments

Supported Standards	ITU G.8261 ITU G.8262 ITU G.8264 ITU G.781
SSM Termination Support - ESMC - SDH SSM	Yes Yes
Selection Function	Yes, Based on ITU G.781
Interoperability with PTP	Yes, Based on ITU G.8265.1
Maximum Number of Synchronization	Configurable, Subject to Application

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