



Delivering Secure, Reliable and Traceable Timing Services for Data Centres & Financial Institutions

Chronos Timing Services

Secure, reliable, and traceable timing services have never been more important than they are today. Whether you are an institution engaged in electronic trading, a deliverer of systems for electronic trading, or a data centre seeking to deliver timing services to tenants, a well-conceived resilient timing platform can be the difference between compliance and failure.

A combination of services and support from Chronos and the latest generation of timing hardware and software from Microchip has facilitated the development of a family of products and services particularly aimed at data centres and financial institutions to deliver secure, reliable and traceable time in a rack, a data centre or indeed a network of data centres.

SiteTime

A single timing rack or suite requires a secure GNSS connection for traceability, so before the signal even enters the site the use of the Microchip BlueSky GNSS Firewall will ensure that the signal received can be relied upon. Utilising the TimeProvider or SyncServer platform as PTP GrandMaster or NTP Stratum 1 server will deliver the traceable time required; monitored for performance via Microchip's TimePictra platform and managed and monitored using Domain Time II.

Chronos will maintain availability through SSP support, including same day hardware despatch, and

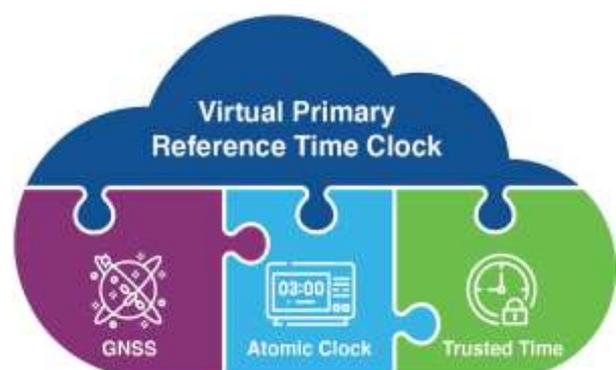
ensure timing delivery networks and fit for purpose and maintain compliance to standards using our SyncAssure design and auditing service.

CentreTime

Time is as fundamental to most customers in a data centre as power and air conditioning; CentreTime offers a host the possibility of delivering a secure reliable and traceable time service to tenants or indeed a secure and resilient GNSS system for tenants' existing timing infrastructure. Distributing GNSS signals over fibre using ViaLite HD hardware will provide a high availability GNSS feed throughout a data centre and clear an often cluttered roof space of the vast array of GNSS antenna systems currently in place.

CityTime

A time service based in several data centres, even in distant cities and different countries, can be enhanced using Microchip's unique APTS technology to enhance





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timing holdover in failure conditions, and mitigate against local GNSS loss through jamming and spoofing by delivering GNSS based timing from many kilometres away.

In satellite centres, or urban canyon locations where reception of GNSS is problematic, the TimeProvider vPRTC can utilise a wavelength between centres to deliver sub nanosecond time transfer from a GNSS site.

GlobalTime

A network spanning countries or even continents can deploy Microchip's Cesium Atomic clock based ePRTC to deliver traceable time across the network built on sites within 100ns of UTC with the loss of GNSS for over fourteen days.

Sync Expertise

Microchip is the world's leading supplier of time and timing systems, from an NTP server to space



hardened atomic clocks; a fundamental component of GNSS satellites. Chronos Technology has over thirty years' experience in designing and delivering time and frequency systems throughout the world; backed up by a world class help desk and support infrastructure available 24x7x365.

Our team is here to help you. Contact us to discuss the options or for more information.



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