



Introducing...

# EdgeSync™

Network Timing  
at the Leading Edge



## What Is EdgeSync?

EdgeSync is a network timing edge platform designed to provide NTP and PTP Grandmaster & Boundary Clock functionality. High performance, scalability, ease of use and manageability make it suitable for a wide range of applications.



## Applications

- Datacenters and financial applications
- Mobile edge computing and enterprise
- Smart grid transmission and distribution substations
- Industrial IoT and factory automation applications
- 5G, small cell clusters, O-RAN, C-RAN, and neutral host deployments

## How It Works

EdgeSync uses GNSS (GPS, Galileo, GLONASS, Beidou and QZSS), PTP and Synchronous Ethernet (SyncE) as input references and generates PTP, SyncE, NTP, and timing signals (frequency, 1PPS and ToD) as outputs. It features dual 1 GbE ports for both copper RJ45 and optical network timing connections independent of its management port.

EdgeSync provides all the relevant timing interfaces such as GNSS, 1 Pulse Per Second (1PPS), Time of Day (ToD) (input/output) and frequency (programmable output). EdgeSync also provides IEEE 1588-2008 (PTP) Grandmaster and Boundary Clock functionality. It leverages unique industry-leading PTP algorithms to deliver stringent timing for demanding, precise applications and supports multiple industry PTP profiles for interoperability. An enhanced oscillator and PTP slave capacity option lets you scale EdgeSync to peak levels of performance.

## Resilient PNT: It Starts with Timing

Resilient timing is the backbone of every PNT (Positioning, Navigation, Timing) application. EdgeSync is the ideal solution to provide accurate, affordable timing at the edge that doesn't rely on the internet.

In order to better comply with the federal government's Executive Order on Strengthening National Resilience through the Responsible Use of PNT Services, EdgeSync can easily be upgraded with external Interference, Detection and Mitigation capabilities by adding Orolia's 823OAJ Anti-Jam Antenna and/or GPSDome to protect critical infrastructure from threats on GNSS signals.

# EdgeSync™

The EdgeSync provides NTP and PTP Grand Master & Boundary Clock functionality at a low total cost of ownership.



EdgeSync is also available in the [Orolia Online Store](#)  
(shipping to US addresses only).





## EdgeSync Network Timing Capabilities

### Network Timing Interfaces

- Dual 1 GbE RJ-45/SFP Ports

### IEEE 1588-2008 (PTP v2)

- Master, Slave
- IPv4/v6, Ethernet Layer 2
- Multicast, Unicast Transport
- E2E, P2P Delay Mechanisms

### Synchronous Ethernet

- Master, Slave
- RJ-45 port or Optical SFP
- ESMC Support

### Network Timing Protocol

- SNTP Server (IETF RFC 4330)
- IPv4 Unicast, Multicast and Broadcast Modes

### PTP Profile Support

- Default
- Telecom
  - ITU-T G.8265.1 (Telecom Frequency)
  - ITU-T G.8275.1 (Telecom Phase/Frequency Full On Path)
  - ITU-T G.8275.2 (Telecom Phase/Frequency Partial On Path)
- Power
  - IEEE PC37.238 (Power Profile)
  - IEEE 61850 (Power Utility Profile)
- SMPTE

## About Orolia

Orolia is the world leader in Resilient Positioning, Navigation and Timing (PNT) solutions that improve the reliability, performance and safety of critical, remote or high-risk operations, even in GPS/GNSS denied environments. With a presence in more than 100 countries, Orolia provides virtually fail-safe GNSS and PNT solutions for military and commercial applications worldwide.