

## WHY A GLOBAL UNIVERSAL CLOCK?

A universal clock means efficiency, standardization and synchronization.

AQUABLUE TIMESYNC addresses the need for time synchronization servers across a variety of markets in a simple, customizable solution.

AQUABLUE TIMESYNC is designed to optimize precision and accuracy in the financial markets, media and entertainment industries, operational organizations and in healthcare.

## FINANCIAL SERVICES

Satisfy MiFD II and GDPR regulations allowing European firms to participate in the global marketplace. Meet FINRA Compliance recommendations regarding consolidated audit trail compliance rules for all United States based financial firms.

## HEALTHCARE

Optimize the precision of health data to maximize the patient experience. Synchronized time servers ensure medication is taken correctly and that patients are brought to operating rooms at the correct time.

## MEDIA & ENTERTAINMENT

Maximize shared user experience and media delivery through precise content synchronization ensure coordination in content drops through the usage of a time server to prevent unplanned early access and deliver coordinated synchronized global media releases.

## WHY AQUABLUE TIMESYNC?

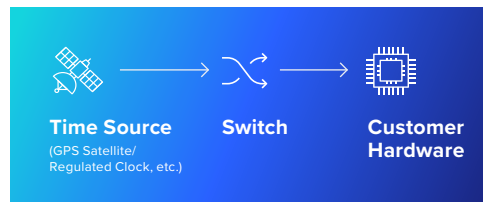
AQUABLUE TIMESYNC provides a variety of advantages, which include:

- A managed synchronized time feed from the provider to the customer
- Full compliance with American and European timestamping requirements for global financial market participants
- A certified precise time signal specifically engineered for the financial community
- **A dedicated customer service team with expertise in installing, maintaining and servicing the clock services--ensuring a smooth rollout and white glove Day 2 benefits**

AQUABLUE TIMESYNC is designed to save time and costs by providing accurate synchronization that can be scaled and serviced with ease.

## TIME SYNCHRONIZATION TECHNOLOGY

- NTP (Network Time Protocol) utilizes the connection of a server to a timesource such as a GPS Satellite Network. The server receives time from the source, processes the information an algorithm and then broadcasts to all network devices
- PTP (Precision Time Protocol) utilizes the same components as NTP but uses additional processors, hardware and software to broadcast time to network devices to a greater accuracy than NTP



## SERVICE COMPONENTS

AQUABLUE can provide some or all of the elements in a standard PTP/NTP order:

- Grandmaster Clock (GM) – Primary timekeeping hardware hosted within IPC PoPs and are connected to a local time source or GNSS Antenna
- GNSS Antenna – Allows hardware to receive time feeds from configured satellites
- Boundary Clock (BC) – Multi-use clock which can extend the capacity of the GM by allowing more connections, extending time feed, etc.
- Customer Edge (CE) Equipment – Generally routers connected to ACs
- Access Circuit (AC) – Cross-connects or physical circuits that allow customers to connect to clock hardware
- Provider Edge (PE) Equipment – Generally switches that connect to the BC and exists to allow customers to be served additional time feeds
- Service Providers Equipment – Network equipment that connects to provider backbone
- Internet Protocol Service Feed (ISF) – Logical IP circuit over which the time feed is delivered

## IMPLEMENTATION & DELIVERY

AQUABLUE offers customizable PTP and NTP services designed to match your business needs while maximizing efficiency of performance and cost

- Services will be deliverable via cross-connect, colocation or via ethernet if in a city where the provider is on-net
- Credits will be issued should the daily clock accuracy pass a certain instance threshold

## ABOUT AQUABLUE

AQUABLUE is a leading integrated telecommunications provider delivering a new service model to respond to enterprises' most complex connectivity needs. Designed-to-Perform, our solutions integrate bespoke infrastructure engineering, cost optimization intelligence, and centralized management.

For decades, AQUABLUE has designed and developed network solutions for the optimal procurement of mission-critical connectivity. Serving customers in healthcare, financial services, media and content, government, education, and large enterprises, AQUABLUE provides customized network design, deployment, and account services to drive the highest levels of performance for customers.

Designed-To-Support. Designed-To-Optimize. Designed-To-Simplify.

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