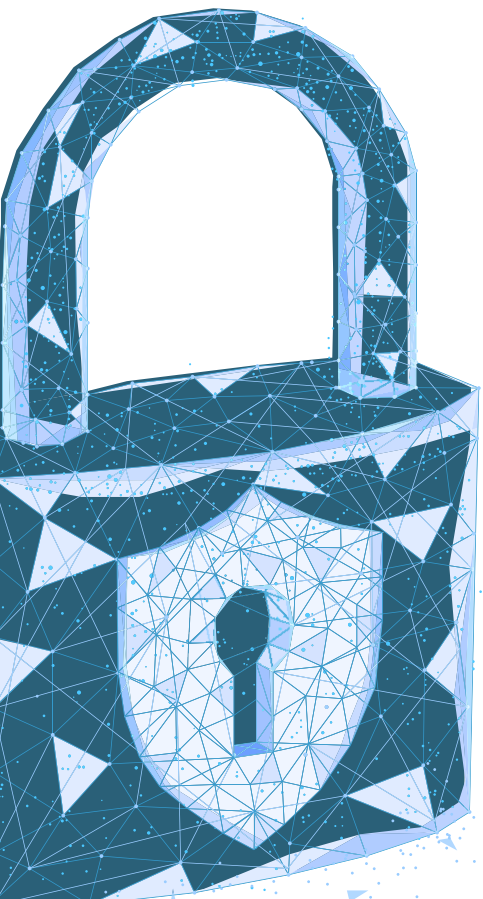


# NETSILON

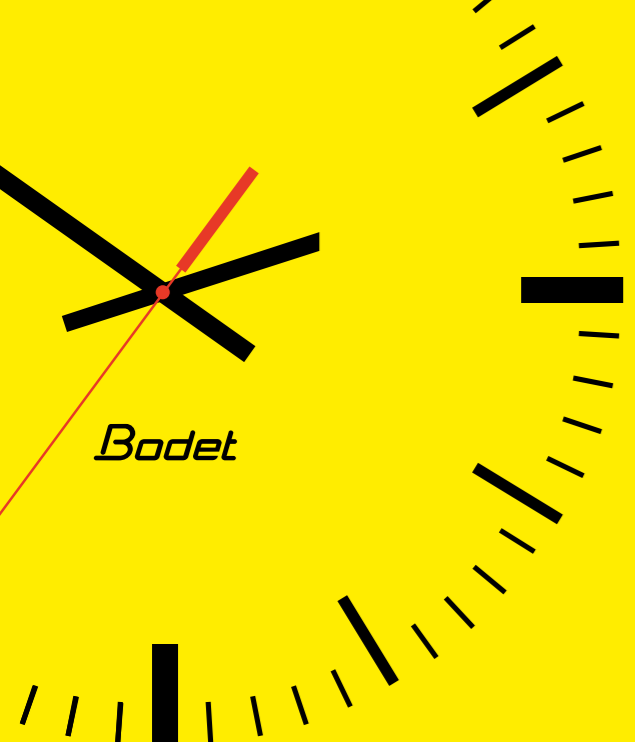
Time Server



A  
modular  
range

FOR ACCURATE, RELIABLE  
AND SECURE TIME

***Bodet***



# Synchronise every instant

Bodet is a French family company founded in 1868. It built its reputation through its expertise in time, thanks to its initial occupation of restoring clocks on buildings. Over time it put its expertise in time-keeping accuracy to use for sports timing, industrial clock-making & audio systems and time management within companies. Thus, alongside Bodet Campanaire the entities Bodet Sport, Bodet Time and Bodet Software were founded.

Today under the management of the 5th generation, the company is continuing to grow in France and internationally and is constantly innovating to offer high-tech products of French design and production. Bodet Time is continuing in this same spirit and presents its range of time servers in this brochure.

## Why a time server?

Time servers have now become essential to the functioning of companies. Why? To display an accurate and identical time on a set of IT equipment, limit the risk of cyber attacks, timestamp each event... So many features that will make Netsilon a natural ally for IT networks.

## Netsilon's missions

### *Vous délivrer un signal horaire précis et fiable*

Tel est l'objectif de Netsilon. Récupérer un signal horaire d'une source externe de référence. Puis, transmettre avec précision une heure, une fréquence ou une phase de manière sécurisée à un ensemble d'équipements : ordinateurs, appareils de mesure, systèmes de vidéo surveillance, contrôles d'accès, automates, robots... sans oublier les horloges.

### *Permettre un horodatage fiable*

Un serveur de temps veille au bon fonctionnement des équipements d'un réseau informatique. Pour cela, il délivre une heure précise qui permet un horodatage fiable sur chaque événement survenu sur le réseau. Il assure ainsi la traçabilité des informations pour l'ensemble des équipements.

### *Respecting your network's security*

Using a time server minimises the risk of cyber threats. Netsilon retrieves and transmits a reliable and highly secure referential time source, unlike the time sources available on the internet. These internet sources cause a breach in the firewall, impair the security of IT networks and increase the risk of cyber attacks.



# Netsilon, reliable and accurate



Our Netsilon range delivers safe, reliable and accurate time information to all equipment. This is a very complete range of time servers suitable for all needs, while optimising the security of IT networks.

## Multi-source synchronisation

- Source Hertzienne :
- Satellites : GPS, GLONASS, BeiDou, Galileo
  - Radio : ALS162, DCF77
- Source filaire :
- Protocole : NTP, PTP, IRIG B

## Accuracy

- Time base: TCXO, OCXO, OXCXO HQ
- Oscillators **Syrlinks** : high performance
- Ultra-precise time information

## Conception durable

- **Matières recyclables**
- Energy saving: optimised electronics
- Fanless design: significantly reduces the risk of failure
- Ultra low power oscillator
- French production

## Reliability

- Globally recognised **QULSAR** PTP solution

## Time signals

- Sorties Timing :
- Protocole : NTP, PTP, IRIG B
  - Signaux : 1PPS, 10Mhz

## The advantages of the web interface

Configuration and administration of time servers with the Netsilon web interface.



## Netsilon interface

- **Simple** to use
- **Secure access** (HTTPS)
- **Simplified configuration** with graphic icons
- **Performance visualisation**: sources, outputs, alarms, etc.

## Resource security

- **Système anti-leurrage et brouillage** :
  - Recepteur robuste (multi bande, multi constellation)
  - Algorithme de détection. Triptyque (oscillateur, source hertzienne, source filaire)
- Encryption of time transmission
- User authentication
- Inbuilt firewall
- Activation / deactivation of protocols

## Quality

- Unit testing performed by our Bodet experts

## Complies with the standards:

- RoHSv6
- Electronic waste
- The electromagnetic compatibility Directive 2014/30/EU:
  - EN 55024 (EMC: Immunity)
  - EN 55032 (EMC: Emission requirements)
  - EN 61000-3-2 (EMC: Harmonic current emissions)
  - EN 61000-3-3 (EMC: Voltage changes and fluctuations, flicker)
  - EN 61000-6-2 (EMC: Immunity for industrial environments)
  - EN 61000-6-4 (EMC: Emission standard for industrial environments)
  - EN 50121-4 (EMC: Emission and immunity for railway applications)
- The low voltage directive 2014/35/EU:
  - EN 60950 (Safety)
  - EN 62311 (Human exposure restrictions for electromagnetic fields)

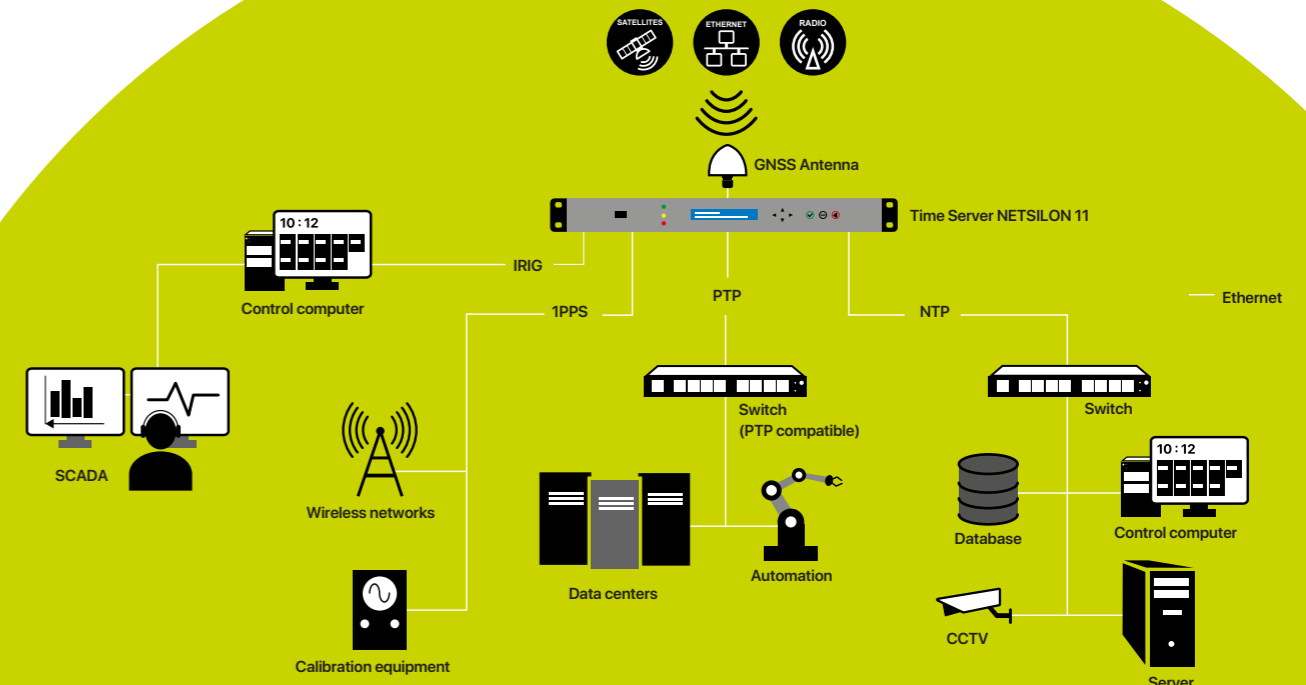
## Ethernet

- NTP v2 / v3 / v4
- HTTP / HTTPS
- SSH v1.3 / SSH v1.5 / SSH v2 (OpenSSH)
- IPv4 / IPv6
- DHCPv4 / DHCPv6 (AUTOCONF / SLAAC)
- SNMP v1, v2c, v3
- RJ45 (10/100/1000 Base-T)

## Timestamping

- Accurate tracing of events
- Notification and supervision: Email, SNMP Trap

## Example of installation



# Time servers in application

Why is the Netsilon range perfectly adapted to every need and to every sector?

## IT networks & Data centres:

Ensuring the operational integrity of your company's IT systems.

A system of timestamping is essential in order to ensure precise traceability of all events occurring on your network. Our time servers allow you to keep a chronological event log with an accuracy greater than one microsecond. This optimises the timestamping and sequencing of activities on your IT network. Moreover, distributing secure and accurate time information allows you to synchronise all your equipment: network log files, systems for staff management, access control and video surveillance, electronic transactions, databases of all other essential applications.



## Finance:

Delivering ultra-precise time information.

MiFID II regulations require an accurate event timestamp obtained in relation to UTC (Coordinated Universal Time). Therefore, it is necessary to implement a time synchronisation system specifically designed to provide accurate, reliable and demonstrable traceability to UTC. A Netsilon time server provides accurate and reliable timestamping for all your events: the date of an electronic signature, proof of a document's existence, guarantee of transaction times, reception of an email, compliance with legal time frames for archiving and storage of a document, the date of an electronic invoice... All to the nearest microsecond.



## Hospitals & Clinics:

A split second can make all the difference.

One sector where it is particularly important to measure the time is in healthcare. When it comes to patient care, accurate time information is more than just necessary: it is essential. All medical devices (scanners, ventilators, electrocardiograms, medical dosing, etc.) require ultra-precise time synchronisation. This information is equally essential in operating theatres using robotic medical devices.



## Industrial companies logistics platforms:

Time accuracy for improved performance.

What is a time server used for in industry?

- For better coordination of your teams and production tools. It synchronises all the equipment on your IT network to provide them with identical and accurate time information.
- For more reactivity. Accurate timestamping by a time server indicates the events occurring on your network. When an incident occurs it provides an event log and guarantees perfect traceability of these events.
- For increased security. By using its own time base to distribute reliable time information.



## Transport:

When customer satisfaction depends on good time management.

In the transport sector, punctuality is key to customer satisfaction. This need for punctuality starts with a reliable time synchronisation system. A time server distributes exact and accurate time information to all of your clocks. Passengers can keep their eye on the time and be certain not to miss their departure. Netsilon also provides ultra-secure synchronisation of all devices on your IT network: computers, video surveillance system, access control, automatic ticket machines... All coordinated by a timestamp function that enables accurate traceability of all your events.



## Pharmaceutical laboratories:

Preserving data integrity: essential for the pharmaceutical industry.

ALCOA-CCEA requirements ensure that every company working in the sector guarantees the integrity of data. To achieve this, they use IT tools to link each item of data to its precise date and time. This is known as timestamping. The Netsilon time servers ensure exact, accurate and reliable traceability of all your events.



# How to choose a time server?

Every company has its own specific network requirements. This is why we have developed a complete range of time servers.

FEATURES		NETSILON 7	NETSILON 9	NETSILON 11
TIME	AC	●	●	●
	DC	●	●	●
	AC + DC	●	●	●
	AC + AC	●	●	●
REFERENCES INPUT	GPS or Galileo	●	●	●
	GNSS (GPS, Galileo, Beidou, Glonass)	●	●	●
	ALS	●	●	●
	NTP	●	●	●
	PTP	●	●	●
	IRIG	●	●	●
PROTOCOL TIMING	NTP	●	●	●
	PTP	●	●	●
	AFNOR	●	●	●
	DCF	●	●	●
	IRIG	●	●	●
SORTIES FREQUENCE	1PPS	●	●	●
	10 Mhz	●	●	●
PROTOCOLS	Internal oscillator	TCXO	OCXO	OCXO
	Accuracy	1x10 <sup>-9</sup>	1x10 <sup>-11</sup>	1x10 <sup>-11</sup>
	Stability	1x10 <sup>-7</sup>	1x10 <sup>-9</sup>	1x10 <sup>-9</sup>
	24H holdover	5 ms	15 μs	2,5 μs

# Synchronise every instant



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