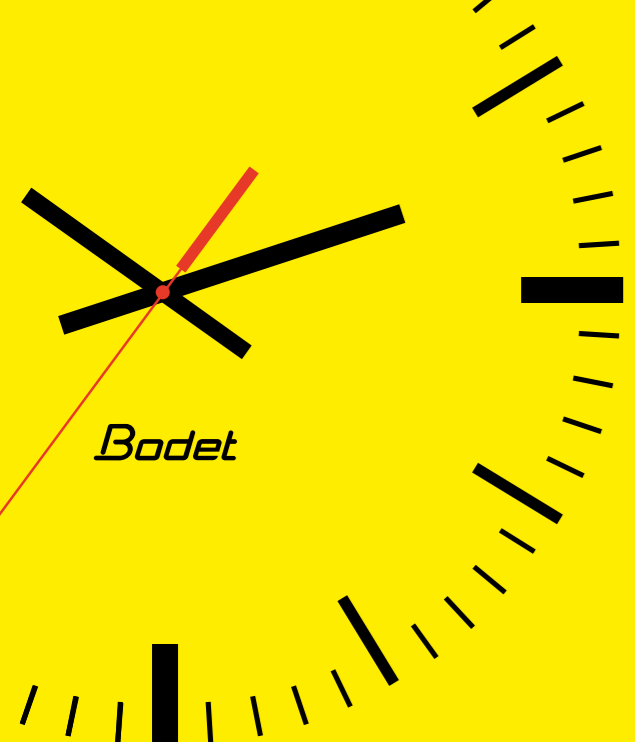# NETSILON
Time Server

A modular range

FOR ACCURATE, RELIABLE
AND SECURE TIME

Bodet

![Bodet](clock logo)

Bodet

Synchronise every moment

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, time servers and 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 an essential part of a functioning company. Why? To display accurate and identical time on equipment connected to an IT network, limit the risk of cyber attacks, and timestamp each event. Netsilon provides these benefits in addition to many others, making it a crucial element of your IT network.

Netsilon's objectives

Delivering an accurate, reliable time signal

That is Netsilon's aim. Retrieving a time signal from an external reference source. Then sending a time, frequency or phase accurately and securely to a range of equipment: computers, measuring devices, video surveillance systems, access control, robots and, of course, clocks.

Ensuring reliable timestamping

To achieve this, it provides an accurate time for reliable timestamping of each event that occurs in the network. It therefore makes information traceable for all equipment.

Respecting your network security

Using a time server minimises the risk of cyber attacks.
Netsilon retrieves and transmits a reliable and highly secure reference time, unlike the time sources available on the internet.
The use of these internet sources requires an open port in your firewall, impairing the security of IT networks and increasing the risk of cyber attacks.

Netsilon

Power
Sync.
Alarm
USB
09:49:32:46
Bodet

Netsilon, reliable and accurate

3 YEAR WARRANTY

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

Sustainable design
- Recyclable materials
- Energy saving: optimised electronics
- Fanless design: significantly reduces the risk of failure
- Ultra low power oscillator

Reliability
- Globally recognised QULSAR PTP solution

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

NETSILON

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

Multi-source synchronisation
Hertzian source:
- Satellites : GPS, GLONASS, BeiDou, Galileo
- Radio : ALS162, DCF77

Wired source:
- Protocol: NTP, PTP, IRIG B

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

Time signals
Timing outputs:
- Protocol: NTP, PTP, IRIG-B
- Signals: 1PPS, 10Mhz

Netsilon

Power
Sync.
Alarm

09:49:32:46

USB

Bodet

Security
- Anti-spoofing and anti-jamming system:
  - Strong receiver (multi-band, multi-constellation)
  - Detection algorithm Threefold system (oscillator, Hertzian source, wired source)
- Encryption of time transmission
- User authentication
- Inbuilt firewall
- Activation / deactivation of protocols

Quality
- Unit testing performed by our Bodet experts

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

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)
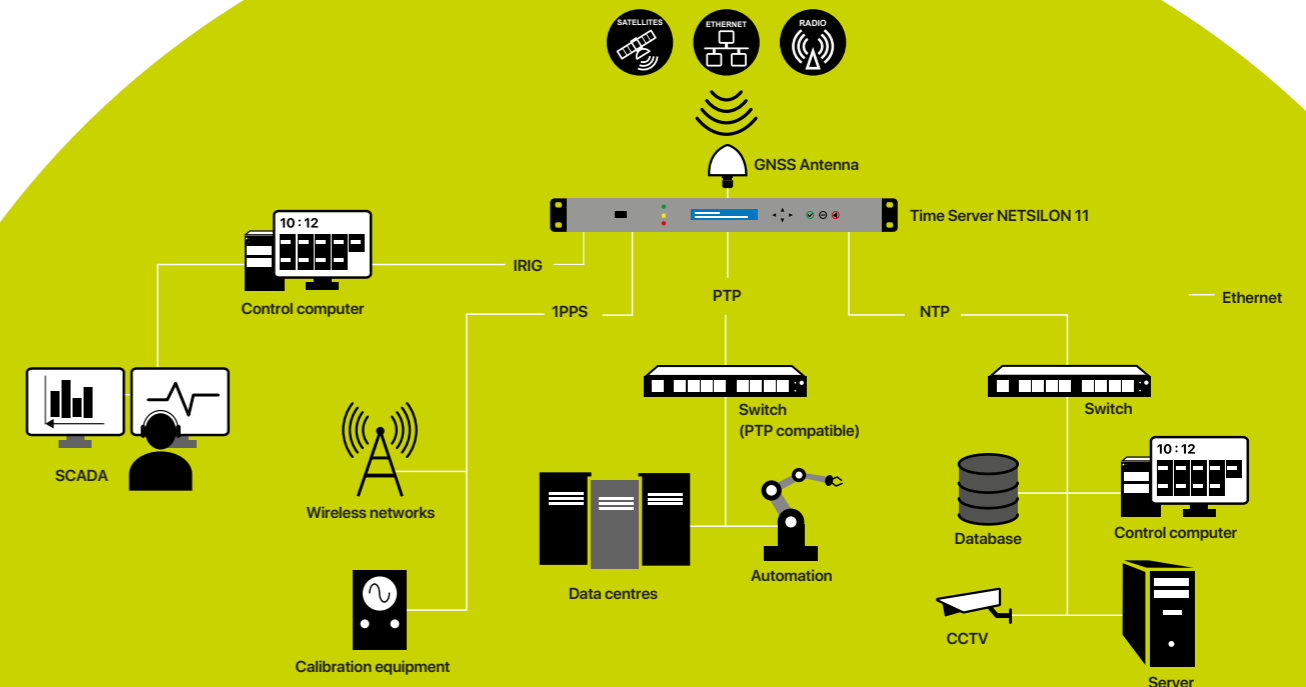 - EN 62311 (Human exposure restrictions for electromagnetic fields)

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)

Example of installation

SATELLITES   ETHERNET   RADIO

GNSS Antenna

Time Server NETSILON 11

Control computer

IRIG

1PPS

PTP

NTP

Ethernet

SCADA

Wireless networks

Switch (PTP compatible)

Switch

Database

Control computer

Data centres

Automation

CCTV

Server

Calibration equipment

Time servers in application

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

Data centres:
Ensuring the operational integrity of your Data centres.

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 and databases of all other essential applications.

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.

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, receipt of an e-mail, compliance with legal time frames for archiving and storing a document, the date of an electronic invoice ... all to the nearest microsecond.

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.

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 (eg scanners, ventilators, and electrocardiograms) require ultra-precise time synchronisation. This information is equally essential for procedures such as operations and administering medication.

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		●	●
OUTPUTS FREQUENCY	1PPS		●	●
	10 Mhz		●	●
PROTOCOLS	Internal oscillator	TCXO	OCXO	OCXO
	Accuracy	1×10^{-9}	1×10^{-11}	1×10^{-11}
	Stability	1×10^{-7}	1×10^{-9}	1×10^{-9}
	24H holdover	5 ms	15 µs	2,5 µs

Synchronise every moment

Bodet

bodet-time.com

afaq
ISO 9001
Qualité
AFNOR CERTIFICATION

afaq
ISO 14001
Environnement
AFNOR CERTIFICATION
Usine de Trémentines