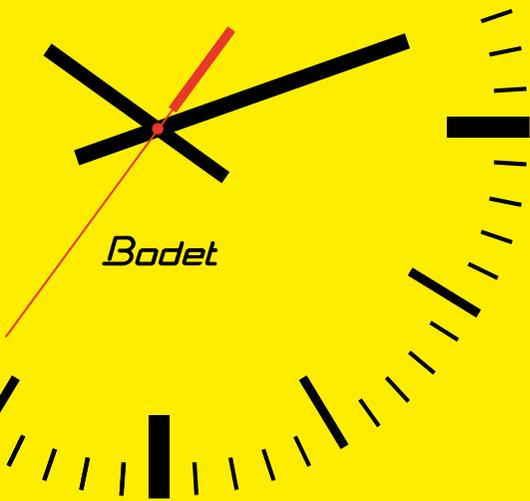


Bodet



Our airport solutions

TIME DISPLAY
SYNCHRONISATION / DISTRIBUTION



Synchronise every moment

Bodet is a French family company founded in 1868. It has earned a reputation for its expertise in time management, building on its primary activity of tower clock restoration as Bodet Campanaire. Over the years, the company has expanded its time precision know-how to apply it to sports scoreboards, industrial clocks, sound systems, as well as time and attendance management. Thus, alongside Bodet Campanaire, the entities Bodet Sport, Bodet Time and Bodet Software were founded.

Now managed by the fifth generation of the Bodet family, the company continues to grow both in France and internationally, focussing on innovation to create a range of high-tech products designed and manufactured in France. Continuing in this vein, Bodet Time products are used to provide time synchronisation and time display in many airports throughout the world.

Bodet Time also provides telephone assistance in many languages. Our technical experts help our clients install and set up the products and perform functional and technical software updates.

MADE IN FRANCE





Customised support for Airport

Time information is a critical data point in the airport sector. It is not simply a matter of displaying the time, but rather distributing a reliable, precise and secure time to a set of devices.

Time precision is relied upon to coordinate operations across the airport network, to orchestrate departures and arrivals and to anticipate delays. A single time reference must be deployed across all devices on the IT network to achieve synchronisation, particularly clocks, computers, ticket machines, boarding desks, video surveillance systems, radio communications and telephones.

As specialists in time synchronisation and time distribution, Bodet Time meets the specific requirements of airports by providing time servers and clocks designed for the airline sector.

TIME SERVERS

The Netsilon range of time servers meets all the requirements of an airport facility: orchestrating all air traffic via the PTP protocol or synchronising all devices on the IT network with the NTP protocol.

CLOCKS

Analogue or digital, for indoor or outdoor use, specifically designed to resist impact and withstand weather conditions, legible by day and night at any reading distance, Bodet Time clocks deliver reliable, accurate and identical time information to everybody in the airport – passengers, ground personnel and flight crew alike.

In an airport, time is critical

In an airport facility, it is vital to have a reliable, accurate time display that is identical across all devices. It is an absolute requirement for ensuring good time management, equipment reliability and staff timekeeping. It reduces stress for passengers by making it clear how much free time they have before boarding – time that they will often use to make a few last-minute purchases in duty-free shopping.

Reliable, accurate and secure time management and time synchronisation is essential.

Time synchronisation ensures efficient internal organisation, which informs flight take-off and landing schedules. It also ensures staff efficiency as well as the smooth operation of all devices across different terminal buildings connected to the same IT network: traffic control systems, security systems, video surveillance systems and clocks.



To meet these specific requirements, Netsilon time servers are connected to a satellite reference time source. They distribute secure time information via PTP and NTP protocols.



Synchronised clocks ensure accurate, identical time information for all airport personnel and passengers alike. Designed to meet the exclusive requirements of airports, they provide optimum legibility wherever they are positioned.

Any number of NTP clocks can be installed throughout the entire station and connected to the existing network cabling. They are known for their ease of installation and commissioning. When connected to the IT network, these clocks integrate the SNMP protocol (supervision), which allows the reporting of anomalies and a reduction in maintenance costs while ensuring continuous operation.

We are trusted by



Budapest Airport
Hungary



Casablanca Airport
Morocco



Madrid Airport
Spain



Jakarta Airport
Indonesia



Lyon Airport
France



The benefits of an NTP time server: a reliable and secure time source

- **It retrieves and transmits a referential time signal** from a satellite source **in a precise, reliable and secure** manner to all the devices connected to the IT network.
- **It ensures a reliable timestamp** of each anomaly that occurs on the network and **guarantees the precise traceability** of information for all devices.
- **It transmits a highly secure referential time source.** Unlike time sources available on the internet that create a vulnerability in the firewall, a time server **minimises the risk of cyberattacks.**

Our airport products

Connected to the existing IT network, all our clocks are synchronised with the time information distributed by a Netsilon time server. This guarantees a reliable, accurate, secure and identical time display across the entire airport.



Analogue clocks



Profil 900

- 3 diameters: 30, 40 and 60 cm
- Indoor or outdoor models
- 3 case colours: ○ ● ●
- Options: lighting, double-sided



Profil 700

- 5 diameters: 30, 40, 50, 60, 80 cm
- Indoor or outdoor models
- Bezel: metal
- Options: lighting, double-sided, water resistant (IP65)

Choose a time distribution



Digital clocks



Style

- 9 indoor models
- Time display: 5, 7, 10 cm
- Display depending on model: hours, minutes, seconds, date, temperature
- LED colours: ○ ● ● ● ●



HMT - HMS LED

- 9 outdoor models
- Time display: 10, 15, 20, 25, 45 cm
- Display depending on model: hours, minutes, seconds, date
- Anti-glare glass
- Automatic adjustment of luminous intensity
- LED colours: ○ ● ●



Opalys and Cristalys

- 8 indoor models
- Time display: 7 or 14 cm
- Display depending on model: hours, minutes, date, temperature, week number
- Energy saving mode
- Opalys: backlit version



Time servers



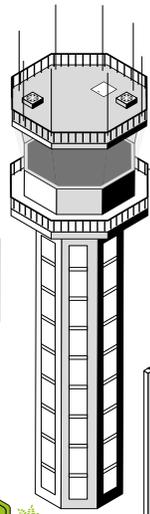
Netsilon

- Satellite synchronisation: GPS, GLONASS, Beidou, Galileo
- Time base: TCXO, OCXO, OCXO HQ
- High-performance oscillators: **Symlinks**
- Notification and supervision: Email, SNMP
- Input and output protocols: NTP, PTP, IRIG-B
- PTP solution: **QULSAR**
- User-friendly web interface with remote server setup





Airport architecture



1 Control tower



2 VIP lounges



5 Outdoor entrances



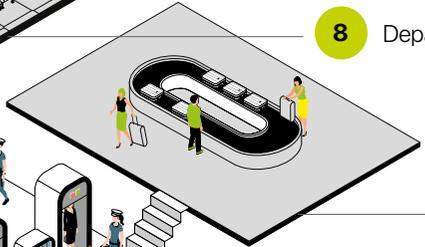
3 Restaurants & duty free



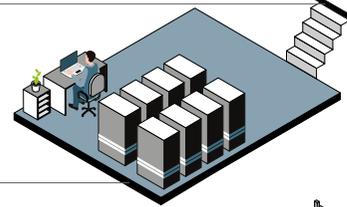
8 Departure lounge



4 Customs area



7 Baggage reclaim area



1 Control centre Offices

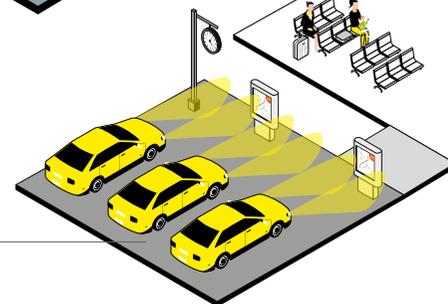


NEW YORK	LONDON	PARIS	TOKYO	SYDNEY
4:12	9:12	10:12	18:12	19:12

6 Departure/arrivals lounge
Check-in desks

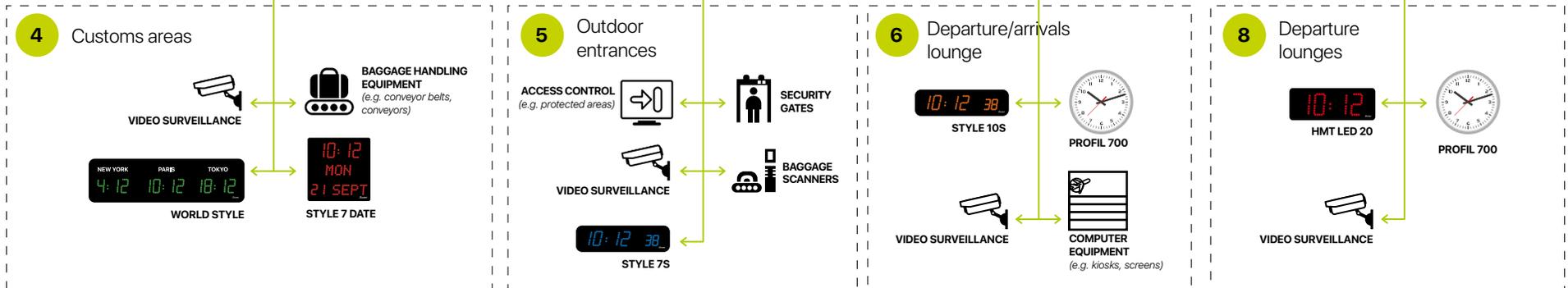
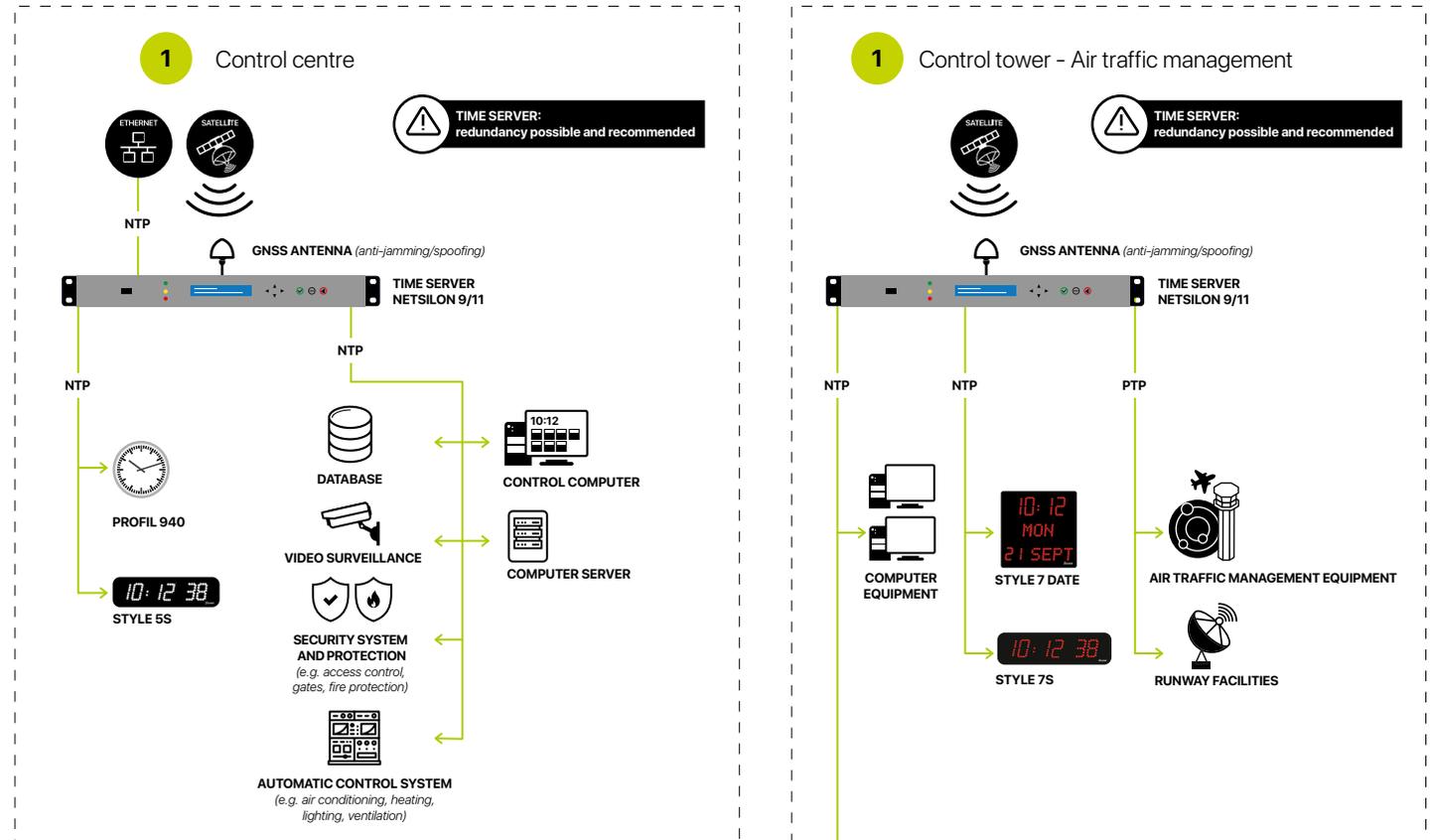


5 Outdoor entrances





Example of airport installation



The benefits of synchronised time distribution

1

Control tower & control centre: accurate, reliable and secure time information across all devices in the airport

Unlike the risks involved in sourcing time data from the internet, a Netsilon time server retrieves a secure reference time using its own antenna (GNSS or ALS).

It redistributes UTC time across all air traffic control devices in a reliable, accurate, secure and identical manner (PTP protocol).

Its ultra-precise OCXO HQ oscillator, combined with a globally recognised reliable PTP solution (Qulsar), make Netsilon essential equipment for orchestrating flight departures and arrivals.

The control centre may in turn control other devices on the airport's IT network (NTP protocol) such as ticket machines, customs control, cameras, video surveillance equipment, passenger information systems and clocks.

2

VIP lounges: high-end information delivery for business class

VIP rooms and lounges are waiting areas that provide optimum comfort for VIP passengers (businessmen & senior executives), who are often preoccupied with their business affairs.

Time is precious and often scarce, and these passengers appreciate a simple, accurate and understated display showing essential information such as time, date, week number, day and temperature, distributed by Cristalys and Opalys LCD clocks.

4

Customs areas: optimised time traceability for customs operations

An unavoidable step in the journey, the customs service monitors data and uses IT systems to record the entry and exit of each passenger.

It is essential to use accurate and reliable timestamping for each operation in case of failure.

A Netsilon time server ensures reliable timestamping of each anomaly that occurs on the network and provides precise traceability for all network devices, including passport scan and passenger transfer.

In addition, passengers often perceive that a lengthy wait in customs is a potential source of stress or delay.

The much-favoured Style 10, with its understated accuracy and luminous 10 cm digits, provides reading clarity up to 40 m.

3

Restaurants & duty free: accurate time information for optimum shopping time

Time to spare before a flight?

This is the perfect opportunity for passengers to make a few purchases in duty-free shopping and visit the restaurant. Precise time synchronisation and a clearly legible time display allow passengers optimum shopping and eating time, and ensure they arrive punctually at the boarding gate.



The benefits of an effective time display

5

Outdoor entrances: a precise time display at each entrance, identical throughout the whole airport

An essential reference for all employees and passengers alike, the clocks at airport entrances are the first reliable and accurate time cue giving an international reference time for the airport. Like all clocks positioned around the airport, the entrance clocks are linked to the IT network and use the same secure time reference relayed by the time server.

This ensures a precise information display, meaning passengers can be clear about the current local time or can gauge how much time they have before boarding or transit.

Designed for outdoor use, the Profil 700 analogue range has a time display that is quick and easy to read from up to 80 m away.

Connected to NTP time distribution, Bodet clocks include the SNMP protocol for remote reporting of anomalies, which significantly reduces maintenance costs.

7

Baggage reclaim areas: an easily legible time reference

Once landed, navigated long corridors and passed through customs, comes the wait to reclaim baggages. Time reference is essential for passengers who are waiting in baggage reclaim halls. The Style indoor clocks provide optimum legibility from up to 40 m away.

6

Departure/arrivals lounge check-in counters: display the local time and time in the destination country for synchronised travel

Ready for take-off, passengers will be wondering what the local time is at their destination. Likewise, arriving after a long flight and with a significant time difference, passengers often lack a time reference between their country of origin and arrival. The World Style helps passengers to find their bearings. It is perfectly suited to arrivals lounges and displays the time in three to seven different cities. It shows the local time as well as the time in cities with airport connections, all time data being automatically synchronised with the different time zones.

8

Departure lounges: reliable, precise and accurate time information prior to departure

Safely through to the departure lounge, the countdown to boarding begins. So how to fill the time while you wait? Make one last phone call? Write up a report? Take a power nap? Sit with a coffee? Eat in the food hall? Treat yourself in the shops? So many possibilities – it just depends how much time you have left before the gate call.

Style 10S clocks show passengers how much time they have left before boarding, to the nearest second. With 10 cm high digits and LED display, they are quick and easy to read from up to 40 m away. The ideal time reference for departure lounges.



Bodet Time, service included!

The time management expert
Bodet Time also guarantees:

- Pre-sales support
- Bespoke product options:
from synchronisation to time display
- Customisable clocks (colour, logo)
- Products made in France & CE certified
- FAT and SAT tests on request
- Extended warranty on request
- Customised client training
- Assistance hotline in France and worldwide

Synchronise every moment

Bodet



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