CASE STUDY

Bodet

The time server, an essential time management tool for hospitals

CUSTOMER
Montpellier University Hospital

ACTIVITY
Healthcare facility

LOCATION
Montpellier - France

FIGURES
2,560 beds
11,000 hospital workers
5 centres spread over 67 hectares

PRODUCTS
Netsilon 7

APPLICATIONS
Timestamping of events
Synchronisation of IT equipment

HEALTHCARE

Background

For some years now, hospitals in France have been subject to stringent requirements in terms of IT security.

They have to comply with certain regulations. The **ARSs** (Regional Health Agencies) are responsible for the regional control of the health system and the implementation of national policies. They require hospitals to meet a set of precise specifications. These are also regularly audited by the **ANSSI** (French National Agency for the Security of Information Systems), which checks that facilities are equipped with reliable and efficient computer equipment.

The **ANS** (Agency for Digital systems in Healthcare) supports directors, CISOs and CIOs of healthcare facilities in **the digital transition of their systems, which has now become essential**. It aims to regulate best practices, particularly in terms of security and interoperability and to make sharing and exchange of health data easier.

Since their creation, hospitals have taken on many constraints and responsibilities related to their duty to **guarantee continuity of care for their patients** (24-hour availability of machines, application redundancies, networks, people, setting up an on-call system, etc.).

The need

Montpellier University Hospital is one of the most automated health facilities in France. **Today it has more than 400 automatic machines and its electrical installation is one of the most modern.** More than 250 human operators from various trades monitor and manage the work carried out on these machines on a daily basis. PLCs control, pilot and regulate all the electrical systems used for air treatment (pressure, temperature), water treatment, but also for the general surveillance of equipment (cameras, biomedical systems, lifts, etc.).

Given the great number of interconnected IT devices (switches, PLCs, clocks, cameras, servers, etc.), it has become essential for the Montpellier University Hospital to **provide reliable and secure time synchronisation.**

Besides, a second power plant is being built on the university hospital site. All active equipment in this future power plant will need to have the same time to be able to **replay failure scenarios after a malfunction**, thus reinforcing the need in the short and medium term to have two time servers.

The strong demand for machine availability and the interaction between different information systems such as computers and healthcare and medical examination machines also require **uniform and highly-accurate timestamping** (to one hundredth of a second).

The solution

After studying the technological constraints, Bodet Time's technical teams recommended the Montpellier University Hospital to choose the Netsilon 7 time server as its technical characteristics met the needs of non-critical systems.

The Netsilon 7 time server ensures the synchronisation of computer networks and all the equipment connected to these networks. As a result of the accuracy of distributed time, timestamping makes it possible to build an accurate and reliable database of events that occur on the network. This data is used **to monitor the proper functioning of IT equipment and identify the origin of one or more incidents**.

With its multi-source capabilities (GPS, ALS162), **the Netsilon 7 is able to overcome the GPS signal interference problems generated by aircraft passing** near the University Hospital site. The time server compares the quality of the reference sources in real time and thus detects interferences. To ensure the best service, it will then use the source detected as being the most reliable. The modularity of the Netsilon 7 also allows time to be distributed over 4 different and independent Ethernet networks. The option cards offered by Bodet allow different protocols to be covered.

Customer testimonial

"We were looking for a **time synchronisation system** for our clocks that was sophisticated enough to implement a **timestamping** that was as accurate as possible.

Our problem was to succeed in **synchronising four completely separate, autonomous and hermetic networks.** We already had Bodet clocks at the university hospital, so it was quite natural for us to contact the company.

Today, the Netsilon fulfils all these functions. Its different option cards allow us to synchronise our four networks at the same time and display an identical and accurate time on all our clocks. The timestamping function allows us to monitor every important event to the nearest millisecond.

Netsilon is a great product. Since it has been installed, no one has ever complained about it. Everything works perfectly. Overall, we were satisfied with the services provided and we appreciated the quality of the services and the responsiveness of the Bodet Group technical teams."
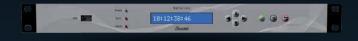
Testimonial by Mr. David MESSINA,
Technical Management Engineer at the
Montpellier University Hospital

The **advantages** of the NETSILON 7

➕ **Highly accurate timestamping**

➕ **A product manufactured and assembled in France**

➕ **Multi-source synchronisation allowing redundancy**

➕ **Option cards**
(RJ45 network, AFNOR, impulse, current loop, fibre optic network)

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