Bravis Hospital Implements Innovative Track and Trace System

Bravis Hospital (NL) can now easily track the location of blood and tissue samples and other biomaterials intended for research, thanks to the development of a custom app that monitors the movement of containers. The app tracks containers within the hospital but also during transport between the various outpatient clinics, operating rooms, medical imaging facilities, laboratories, pathology departments, and pharmacies.

Introducing a Simpler Way to Asset Tracking

Bravis Hospital covers a big area of patients. The institution's catchment area includes the Western North Brabant region, stretching from Tholen in Zeeland to Breda and Essen in Belgium to Moerdijk.

Materials are regularly transported between the various hospital sites. There are also daily deliveries to and from the laboratories and pharmacies that are linked to or collaborate with the hospital.

> On an annual basis, this involves more than 20,000 movements of medicines, blood and tissue samples.
>
> Mark Sijstermans, Logistics Team Leader, Bravis Hospital

"On an annual basis, this involves more than 20,000 movements, not only of medicines but also of blood and tissue samples and other biomaterials intended for research," says Mark Sijstermans, logistics team leader at Bravis Hospital.

Bravis ziekenhuis

With several hospital campuses as well as an outpatient clinic in West Brabant, Bravis Hospital aims to bring healthcare closer to residents.

The hospital houses more than 600 beds, employs close to 300 medical specialists, and counts more than 27,000 treatments daily. The ultimate goal is collaboration to deliver individual care at an exceptional quality.

Blyott

Prevention is Much Better Than a Cure

"It can happen that something gets lost when you have so many movements," says Sijstermans, from experience. "And, of course, we want to avoid that. It's troublesome for the patient if they have to wait longer or even have to give blood or other samples again."

In addition, some samples deteriorate in quality if you don't deliver them within a certain period or don't maintain a particular temperature during transport.

To guarantee quality, there are increasing regulations, mainly from Europe, which hospitals such as Bravis must comply with. Therefore, Bravis Hospital sought a specialized partner to help them meet this challenge.

"We approached three companies," says Sijstermans. "In the proposal, the candidates first had to provide options to accurately track the transport of containers of biomaterials by road."

Sijsterman continues, "The solution also had to make it possible to scan the contents of the container and monitor the temperature. Lastly, it had to include a sign-off module. We need proof of carriage signed by the sender, the recipient, and the carrier."

> We tested it for six months with more than 10,000 movements. We haven't lost anything so far, so we've undoubtedly avoided some patient inconvenience or suffering in the past year. That is one of the great advantages of the system.
>
> Mark Sijstermans, Logistics Team Leader, Bravis Hospital

Last but not least, the hospital wanted everything clearly presented on a dashboard to view alerts if something went wrong with the transport.

Custom Developed
App Tracks Devices

Blyott

In the end, Bravis chose Blyott. The Dutch-Belgian company has a lot of experience developing track and trace systems.

"Blyott has already developed an app that allows you to track pumps, beds, wheelchairs, and other materials," says Sijstermans. "They attach a Blyott sensor to the device. Every five seconds, it sends out a signal to the app via a Wi-Fi point with Bluetooth[*]."

Meet the Blyott Standard Sensor BT-T1

The BT-T1 is a BLE V5.0 compliant module with secure, custom firmware and a waterproof, easy-to-clean casing.

The BT-T1 helps you keep track of your (mobile) assets and is designed to fulfill all requirements for:

✔ Asset tracking and logistics

✔ Item management

✔ Predictive maintenance use cases

At Bravis' request, Blyott adapted its system, allowing containers to be tracked outside the hospital. "We attach the sensor to the inside of the container. Instead of using fixed locators, the signal is sent to mobile locators—the most important innovation—that are connected to the app. Now, we know where the container is at all times."

The carrier also scans the container at pick-up and again on delivery. "Like that, we know exactly who has the material at any time. Also, a timer of 1,5 hours begins upon departure. If the box hasn't been received within that time, we get an email every four minutes."

Finally, the sensor monitors the temperature in the container. An alarm goes off if it exceeds or falls below a specific temperature.

Nothing Has Been Lost Since the Start of Asset Tracking

The results of the system are already very positive.

"We tested it for six months with more than 10,000 movements. We're the first hospital in the Netherlands to use this system, but much more critical than that scoop is that we haven't lost anything so far, so we've undoubtedly avoided some patient inconvenience or suffering in the past year. That really is the great advantage of the system. This is the future," concludes Sijstermans.

The senders and receivers are also happy with the new system. Because of the high number of movements and locations, the movements are vulnerable.

Now that every container is traceable, the hospital always knows who the courier is and can monitor the temperature.

About Blyott

Blyott is at the forefront of transforming industries with innovative localization and monitoring solutions. Our platform integrates advanced data analytics and AI, supporting various sectors to navigate operational challenges, enhance efficiency, foster staff well-being, and achieve sustainability goals.

EASY TO SET UP
Works in a matter of minutes.

SCALABLE
Scale to millions of assets.

PAY-AS-YOU-GROW
Custom plans are available.

OPEN STANDARD
Integrate using REST APIs and webhooks.

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