



A circular inset in the upper right corner shows a close-up of a medical ventilator or similar respiratory support machine. The screen displays various vital signs and graphs. The device is connected to a complex network of blue and white tubes and sensors. The background of the entire slide is a light blue gradient.

## SUCCESS STORY

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# Asset tracking

## Location of health devices



# ELA Innovation and Apitrak allow the CH of Montélimar to geolocate its perfusion devices

The Hospital Center of Montélimar puts its trust in Apitrak and ELA Innovation to meet a major challenge... It consists in geolocating perfusion devices within the health establishment while answering a given number of constraints. Indeed, the size of the beacons have to be adapted to the equipment, the precision of localization has to be adjustable, finally the proposed solution has to be simple to use and maintain.

To meet this challenge, Apitrak deployed an **Indoor mesh network geolocation solution** based on a set of ELA Innovation beacons.

«**The form factor of the tags was very important to the customer, which is what made us choose the COIN range from ELA Innovation.**

**Compact, this tag fits particularly well with small medical devices such as syringe pumps withstanding harsh conditions».**

V.Lê - CEO - Apitrak

## THE KEY PLAYERS



Tag manufacturer



Supplier of Mesh technology



Intégrator - Installer



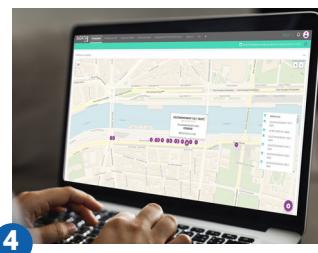
End user

## THE CLIENT NEEDS

- Locate medical equipment in the hospital with an accuracy of less than 10 meters
- An easy to use solution
- A beacon size adapted to the equipment to locate

## THE EQUIPMENT

- 120 Fixed beacons named **anchors**<sup>1</sup>
- 100 mobile beacons **Wirepas MESH**<sup>2</sup>
- 4 **Apitrak gateway**<sup>3</sup>
- IoT plateform **Apitrak Explorer**<sup>4</sup>



## THE OPERATING MODE

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From a technical point of view, the location solution is based on a **mesh network of fixed and mobile beacons**. The rooted tags, also known as anchors<sup>1</sup>, are **installed at regular intervals** (20 - 25 meters) throughout the site, while the mobile ones are **positioned directly on syringe pushers and infusion pumps**<sup>2</sup>. The mobile Blue COIN ID Mesh tag **emits signals** to all surrounding anchors, which in turn pick up all dialogues and **transmit the information to the gateway**. However, as the data collected by the beacons is raw, it is **transformed into GPS data** (altitude, latitude, and longitude) by the Wirepas Positionning Engine and **visualized on the Apitrak Explorer web application**.



The battery-powered infrastructure, requiring **no connection**, facilitates the deployment of the solution and ensures an extremely competitive total cost of ownership.

## THE ADVANTAGES

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- Beacon size: 36mm diameter
- **Low installation costs**
- Accuracy of **5 to 10 meters**
- Beacons **100% autonomous**
- Important battery life
- **High refresh rate**

## THE RESULTS

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- **Saves time** for the biomedical team.
- Better knowledge of **the usage rate** of each device
- Facilitates the **sharing of material** between departments