

Tracking returnable assets: 3 challenges and how to solve them



here

for location

Why invest in asset tracking?

On the surface, it might not seem like a big deal. But a lack of visibility over returnable shipping assets (RSAs) and returnable industrial packaging (RIPs) might be impacting your company's efficiency and bottom line.



That's because around 10% of these assets – such as trolleys, containers and roller cages – are misplaced or stolen each year. This can cause delays, create additional costs, lower productivity and even damage a company's reputation.

Let's do a little math to demonstrate. Imagine a shipper that distributes 400,000 units of packaging a year. If it lost 10% (40,000) of those units, and each unit cost €400 to replace, that would add up to €16 million of extra annual costs.

And those are just the material costs. Employees also spend valuable time on assets: tracking them, logging their use and searching for them when they've gone missing.

Too many businesses still rely on outdated manual processes when it comes to their returnable industrial assets. Luckily, there are solutions out there that can help plug this cost leak. In fact, one of our partners, Sigfox, was recently able to help a customer reduce replacement costs by 50% through asset tracking.

Read on to discover how companies are gaining better visibility of their returnable assets.

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🔍 **Plugging cost leaks in your supply chain**

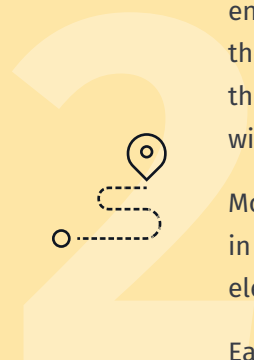
Tracking assets: the challenges

For those who have invested in tracking and understand its value, there are still some technical and business challenges to overcome. Here are three common barriers organizations face when tracking assets.



Battery usage vs. wide areas

Limited tracker battery life makes tracking deployments expensive and cumbersome to manage. Traditional tracking using RFID, GPS and so on may work if you manage a concentrated area with one or two distribution centers or in a very specific step in the supply chain. However, if there are hundreds of distribution centers extending across borders, it becomes increasingly difficult to accomplish considering the number of trackers and the battery life they require.

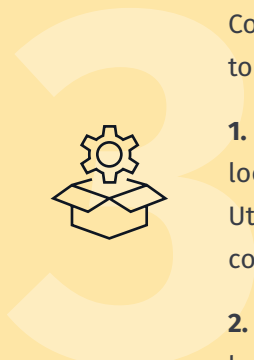


Tracking indoors and outdoors without disruption

Traditionally tracking ends at the door of the factory, but that's not always good enough. With proximity-based tracking (RFID, for instance), the checkpoint will scan the tags in an object only once when it passes through. With many assets coming in, this makes it quite difficult to locate a particular item in a complex warehouse or yard with hundreds or thousands of assets.

More precise alternatives exist, like ultrasonic positioning. However, it is restrictive in terms of the environments it can support. Light-based technology is resistant to electromagnetic interference, but it requires retrofitting current hardware.

Each technology has its pros and cons, but the main issue is that they are incompatible with outdoor positioning. You may need to bear the cost and time of integrating two separate location technologies to achieve end-to-end visibility of your assets, which brings us to our next challenge.



Integrating solutions with existing business applications

Compatibility and integration with existing systems are chief concerns. Some questions to ask include:

1. Does your provider offer a wide range of hardware? If not, you may find yourself looking for a different provider or solution for each and every one of your needs. Utilizing several providers rather than one universal fix will not only make things more complicated, but it will drive up costs, as well.
2. Are the solutions easily customizable and scalable? You should also consider the level of customization that will be available to your customers. Can they create custom applications by integrating their own devices, tools and data?

Tracking assets: the solutions

Now you've seen the most common challenges and perhaps even experienced them first-hand. Here's how to solve them:

Low-power trackers and long-range wireless



Opt for asset management solutions based on alternative technologies. With LoRaWAN®, a low-power, wireless protocol for wide area networks, devices can communicate with IoT applications over long-range wireless connections. It also supports better battery life for devices, which significantly lowers the total cost of ownership.

Small, battery-powered tracking devices with embedded LoRaWAN™ connectivity are securely mounted onto containers, delivery cars, trucks, wagons, boats, pallets, parcels, trolleys, trailers and more. Those devices collect real-time information about their location, running for months and years without a battery change, and they work both indoors and outdoors.

Uninterrupted tracking with 3D maps



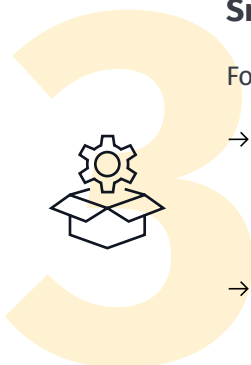
Your GPS tracking may work well outdoors, but the minute your asset arrives inside: nothing.

Avoid this issue by working with a provider that offers indoor and outdoor capabilities on the same infrastructure and with the same hardware. A unified infrastructure means coverage isn't interrupted or stopped when assets are moved.

Stay informed and achieve fast, highly accurate positioning indoors. Wi-Fi networks and Bluetooth beacons inside a venue can work to create 3D indoor maps, helping users stay on top of their assets.

Positioning data can be computed directly on the tracker and uploaded when connectivity is restored, so logistics managers can have an unbroken record for analytical purposes.

Smooth integration starts with a well-rounded provider



For easy-to-use integration, here's what to look for:

- A wide range of hardware: Present your customers with a one-stop shop. Instead of having a different solution for every asset type, utilize a provider that meets all of their requirements and helps minimize cost.
- Highly customizable and scalable: A provider should offer as much — or as little — of the stack as needed. Additionally, customers should be able to easily integrate their own devices, tools and data to create custom tracking applications.

Asset tracking solutions for the real world

Asset management solutions offer real-time visibility of your assets' location and status, both indoors and out. These solutions allow you to find your assets quickly and understand how they are being utilized. With greater visibility you can identify underperforming areas within your supply chain, root out the inefficiencies and reduce overhead costs all while accumulating valuable data to further streamline your operations.

The three components of an asset management solution include open IoT hardware model, Platform as a Service and application.

- **IoT hardware** – Easy to use for different use cases with the right connectivity. You can reduce the total cost of ownership by leasing hardware and connectivity.
- **Platform as a Service (PaaS)** – Enables you to track anything, anywhere with real-time indoor and outdoor visibility. It also supports

additional levels of customization such as venue or yard maps.

- **Application** – A ready-to-use app and admin portal where you can configure devices or manage users and projects. With HERE Professional Services, you can customize features and integrate your ERP or TMS.

Companies can use Platform as APIs or as an application or use professional services for customization.

Examples of location in action



HERE and Sigfox developed a real-time tracking system that delivers increased visibility to postal companies around the globe. To combat loss and better track their Returnable Packaging (RP), (ie, reusable pallets, bulk containers, etc.) “trackable trolleys” were equipped with IoT sensor devices that feature HERE Positioning and Atlas WiFi from Sigfox. Atlas WiFi, a geolocation service for massive IoT, provides seamless tracking indoors and outdoors and is specifically optimized to support global supply chain and logistics applications. In the first year, those utilizing “trackable trolleys” experienced a 50% reduction of lost trolleys. [Read more](#)



Actility, a trailblazer in IoT connectivity, and HERE developed a cutting-edge tracking service for mapping and location data management based on LoRaWAN® networks. Actility's LoRaWAN® network server, “ThingPark Enterprise”, operates over 35,000 network base stations worldwide and supports the efficient tracking and organization of assets. With an accurate picture, cargo, assets and machinery can be traced inside a multi-floor warehouse or in a private storage yard just as easily as they can on the road, on railway tracks or onboard a ship. [Read more](#)

Further reading:



Supply chain traceability: tackling 5 million tons of wasted seafood

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HERE Supply Chain solutions

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Small carriers, big savings: Plugging cost leaks in your supply chain with end-to-end visibility

[WATCH THE WEBINAR](#)



Take the first step to reduce misplacements, eliminate legacy tracking practices and better manage your assets.

[Talk to an expert](#)

HERE, a location data and technology platform, moves people, businesses and cities forward by harnessing the power of location. By leveraging our open platform, we empower our customers to achieve better outcomes – from helping a city manage its infrastructure or a business optimize its assets to guiding drivers to their destination safely. To learn more about HERE, including our new generation of cloud-based location platform services, visit 360.here.com and here.com.