6 Reasons to Switch from Vehicle Tracking to Package Tracking

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The first thing you search on Google when you want a logistics visibility solution is a 'vehicle tracking system.' But, does tracking the fleet that moves your goods truly provide you with complete and uninterrupted visibility with actionable information to optimize your logistics operations? Probably not! In this article, we will discuss the reasons why you need more granular visibility (at a package-level) to run an efficient logistics operation.

GPS vehicle tracking systems have been in use since the beginning of the 21st century and they were one of the initial innovations in the age of IoT. They were supposed to enable supply chain and logistics professionals to keep a real-time track of their goods in-transit. The intended outcome of doing this was to improve logistics predictability and planning.

Vehicle trackers and cellphones work on similar technology (GSM based), although one caters to enterprises while the other caters to consumers . Vehicle trackers coincidentally came into existence during the same time that cellphones were introduced in the market, so it would be reasonable to compare them in terms of market penetration.

The market penetration of cell phones in 2013 reached 56.3% worldwide and about 65.9% in 2018[1]. In the US alone, 80.9 percent of the population has a cellphone today[2]. GPS vehicle trackers entered the market around the same time and function on a similar technology (GPS/GPRS). Yet, the market penetration of vehicle tracking systems is only between 5% in some countries and 27% in others, using the best of estimates.

Why so? Especially, when enterprises usually adopt technology at paces similar to that of consumers.

The reason for the low market penetration of vehicle tracking systems is that there are many gaps in the way they work, which limit their ability to solve logistics visibility. They are not successful in providing the level of actionable information that is required for logistics professionals to take corrective action on their logistics in-time to maintain transport efficiencies.

> **Newer, innovative hybrid IoT technologies working on GPS/GSM/BLE/Wi-Fi, enable you to monitor your goods at a package or parcel-level, and are thus replacing vehicle tracking systems as an end-to-end supply chain visibility solution.**

> **Learn how you can monitor your goods and packages without tracking the vehicle**

Let us find out more about these gaps that make vehicle tracking systems obsolete and push many enterprises to switch to a package-level monitoring solution using hybrid IoT technology like GPS/GSM/BLE/Wi-Fi.

Why Switch from Fleet Management to Package-Level Visibility

1. Dependence on Fleet Owner and Logistics Service Provider

Vehicle tracking system installations are always a fleet owner initiative.

You as a shipper would have to request your logistics service provider, or the owner of the vehicle, to install a GPS vehicle tracking system.

This is not always possible because the vehicle that is used to move your goods could be a “market vehicle”, or your cargo could be a Less-than-Truck Load (LTL) shipment which is moving through multiple vehicles.

> A “market vehicle” in logistics is a vehicle that is hired on a per-trip basis from the marketplace. These vehicles seldom return to their destination and do not move a shipper’s goods more than once.
>
> Nearly 80% of intercity movement and line hauls are done using market vehicles.

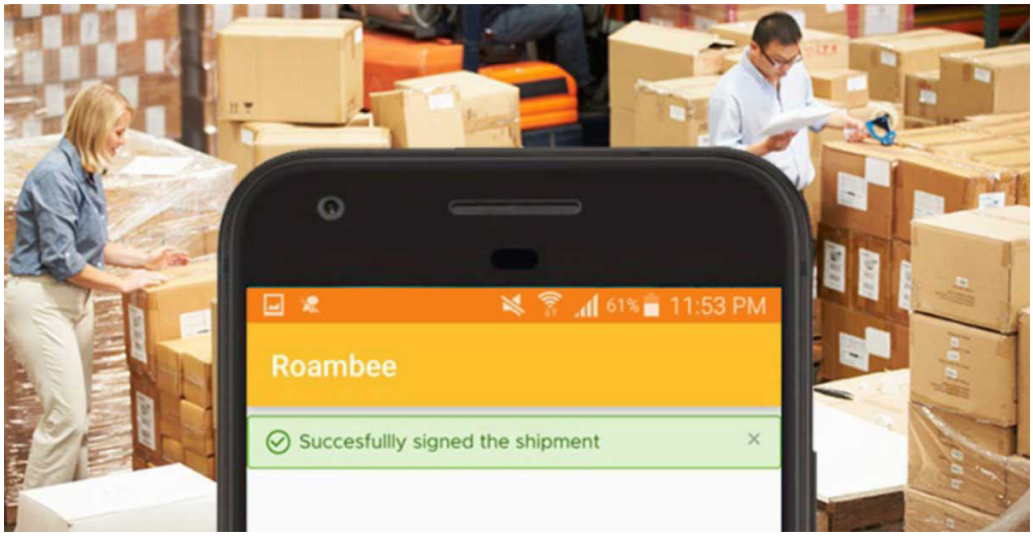
This means that you are dependent on the vehicle provider or your logistics service provider (if your vehicle is owned by them), to get any form of visibility.

How Do Package-Level Visibility Solutions Remove This Dependence?

You have the power to monitor your goods on your own without relying on anyone in the chain of custody. You can also monitor your goods moving on market vehicles and your LTL/LCL shipments.

2. Last-mile Delivery Confirmation Is Not Verifiable

Lack of a verifiable delivery confirmation system can disrupt your last-mile delivery optimization plan.



Most last-mile delivery optimization tools which work on tracking the vehicles or the drivers' mobile phones only help with route planning, schedules, stops reduction, etc. The piece of the problem missed is ensuring whether a high-value parcel was actually dropped off, and whether it was dropped off in the right location.

Adding an Electronic Proof of Delivery or ePOD solution to vehicle tracking will only help you get a digital signature from the receiver if the goods were received but, many at times, the receiver never inspects if he or she has received the right item — creating room for error.

How does package-level visibility provide delivery confirmation?

By knowing precisely which parcel was dropped off, and at which location, a wrong delivery can be caught within seconds. The time taken to re-ship the right parcel or backhaul the delivery truck can thus be largely reduced.

It will also help you ensure that you aren't left with a frustrated customer — ever!

3. Lack of Cargo Security

With vehicle tracking systems, you can possibly prevent or partially recover a stolen vehicle. However, if the culprits have tampered with the power cable of your vehicle tracker you will not be able to follow your truck. That said, vehicle tracking does offer some level of protection against the theft of the vehicle, and certainly improves the chance recoverability..

But, what about the cargo which is traveling inside the truck? What happens if a few boxes are stolen from your truck at a rest stop?

You will have no idea about it till your goods are delivered at your customer's location and you receive an escalation that your order has only been partially fulfilled.

How does package-level visibility avert pilferage?

Since every box, parcel, or pallet is tracked, you will know instantly if any item is lifted from the truck, and you will have a chance to recover it before it is too late. When combined with the other analytics such as unauthorized stops, sensing door opening, and route deviation, you can also prevent incidents of pilferage.

> In the case of high-value cargo or time sensitive goods, package-level monitoring becomes a must-have to save the loss and related insurance costs.

4. Inability to Extend the Visibility to Your Warehouse

Just one piece (logistics) cannot solve the entire (value chain) puzzle.

Logistics and warehousing are not separate, and are interconnected as a mesh to form a supply chain system. When you are thinking about delivering your consignments to you customer on-time and in a secure manner, it becomes important to monitor for choke-points and risk prone areas not only across your logistics, but also in your warehouses.

Vehicle tracking systems cannot provide you with visibility both in-transit and in warehouses, leading to blind spots in your value chain of getting your goods to your customers efficiently.

How can a package-level monitoring solution be extended to warehouses?

By tracking your parcels or cargo using a hybrid GSM/BLE/Wi-Fi based solution, you can get in-transit visibility with accurate location of goods, both at warehouses and when they are being transported.

> **RFID only provides you visibility inside the warehouse, while GPS vehicle tracking only provides you visibility in-transit.**
>
> **GSM/BLE/Wi-Fi based hybrid solutions provide end to end supply chain visibility at your warehouse and in-transit.**
>
> **Learn How a GSM/BLE/Wi-Fi System is More Advanced Than RFID or NFC**

5. Ignorance about your Sensitive Cargo's Condition

Simply knowing where your shipment is doesn't ensure it is hale and healthy.

When it comes to sensitive goods like perishables or fragile cargo, it is important to know how it is being handled in real-time. With vehicle tracking devices, you can only collect sensor information about the health of the vehicle, not your shipment.

Common fleet management sensors include fuel sensors, ignition sensors, driving patterns, and acceleration sensors. None of these give you insights into whether your goods have been maintained at the right environmental conditions to ensure their integrity through the shipping process.

Why package tracking solutions are built better to monitor cargo condition?

With package-level visibility solutions, you can know in real-time, the temperature, humidity, and pressure conditions that surround your packages, and initiate prompt action when they cross tolerance limits.

Since most package-level visibility solutions use wireless GSM devices and wireless BLE tags that ride with your packages, adding sensors to them can directly measure your goods' condition.

Shock is another sensor which you can use to promptly identify rough handling and intercept it in time remotely before all your cargo gets damaged.

6. Vehicle Tracking is Mostly CAPEX; Package-Tracking Is 'Almost Always' OPEX

Why make a down payment when you can pay per shipment or per month.

Since most vehicle tracking solution providers are hardware companies, their business models work on a CAPEX basis. The rest are system integrators who buy the hardware from these manufacturers, build a basic software or cloud portal, and offer the service in the form of a pay-as-you-go!

In both cases, installation and repair will be an ongoing cost, and will involve ensuring that the owner of the vehicle you have rented has maintained the device in top condition to get uninterrupted visibility.

This is not practical if you are the shipper, and totaly impossible if you are using market vehicles or shipping LCL cargo.

Why is a package tracking solution almost always an OPEX model?

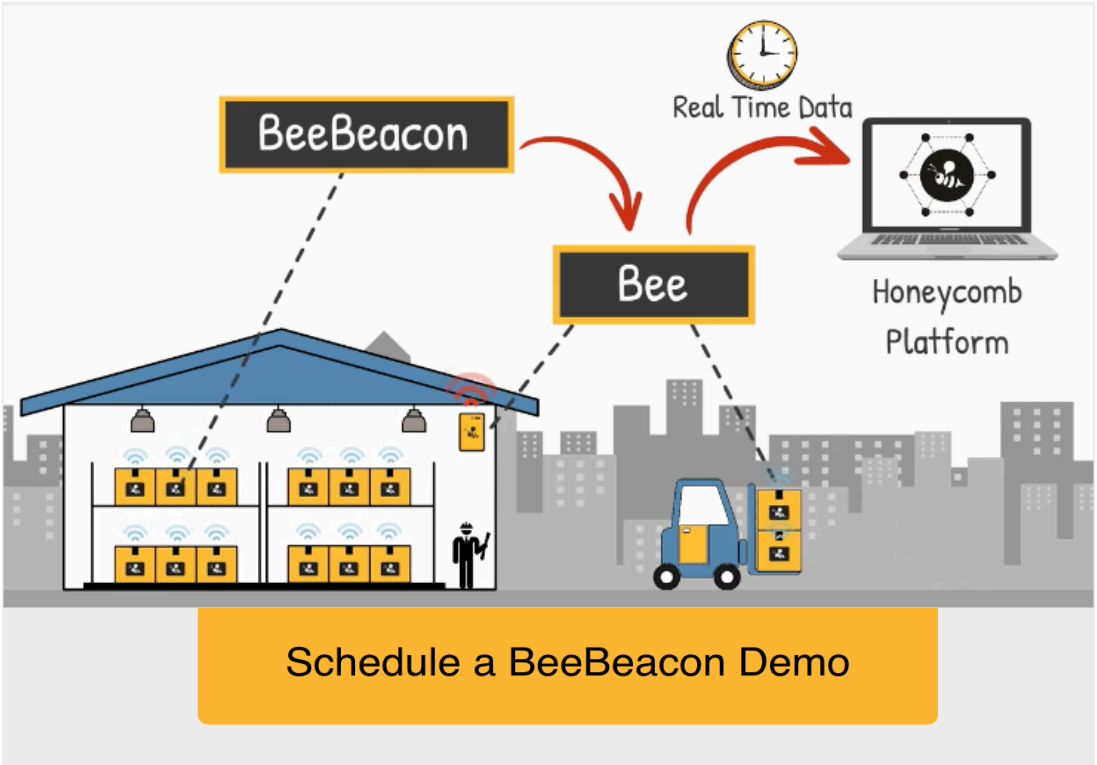
Package tracking solutions involve the use of portable GSM/Wi-Fi devices and BLE Beacons or tags. To use these portable devices (which ride along with the shipment) effectively and prevent their loss at the destination, you needs to ensure that a tight reverse logistics system for these devices is in place.

Typically, it is advisable to go with an IoT solutions provider who manages the device, its reverse logistics, and also provides the analytics and reports of the tracked data. By doing so, you can ensure that the subscription is always an OPEX model.

How to Get Started With Tracking Your Packages

If you have decided that package-tracking is the right way to go for your logistics scenario, then Roambee's BeeBeacon solution could be a good place to begin.

The BeeBeacon solution is the industry's first GPS/GSM/BLE/Wi-Fi based in-transit and warehouse package-level monitoring solution.



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