See everything

Overcoming supply chain challenges with location intelligence from HERE

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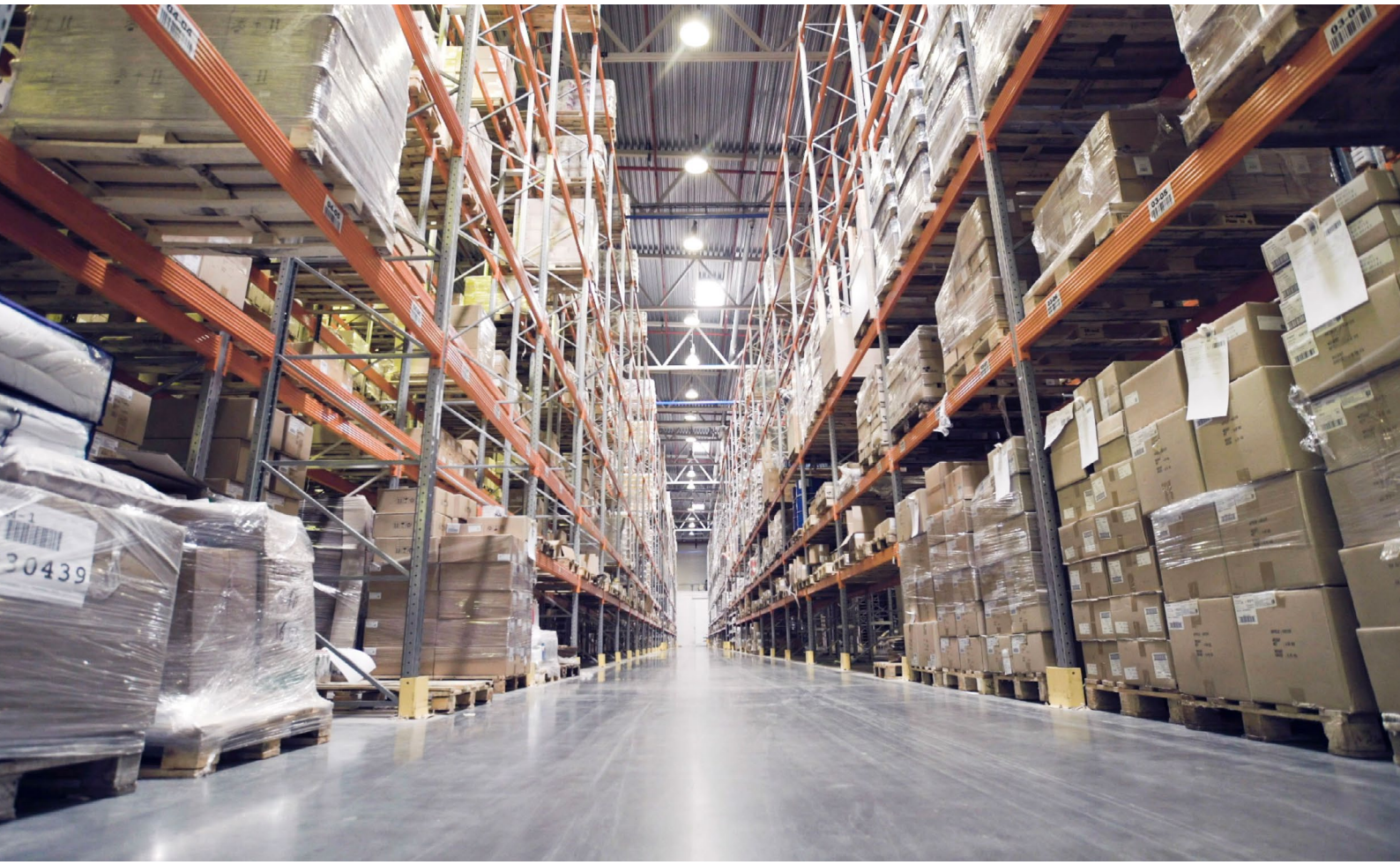


Optimizing the supply chain with location intelligence

Auto and heavy equipment manufacturers know their supply chains are ripe for optimization, yet a lack of visibility over the process has, until now, limited their opportunities to lower costs and improve efficiency.

The way manufacturers move finished goods to delivery is complex and often in flux. Yet, it's now possible for them to take advantage of location intelligence and establish the ground truth, context, and real-time view they need to understand their supply chain dynamics and address challenges.

Identifying inefficiencies

As a developer of smart tracking and location solutions, HERE Technologies is well-placed to help manufacturers establish a real-time visualization of assets moving from factories into the supply chain though partnerships with leading ERP and SI providers – and by enabling the integration of HERE Tracking directly with customers.

Once manufacturers have sourced and fitted the necessary tracking hardware to their assets, the cutting-edge software services of HERE can help create accurate location data. This information will support the proactive decision-making manufacturers need to drive their businesses forward.

Future supply

The choice manufacturers face is how best to utilize technologies that provide valuable supply chain insights. In other words, how do they use location intelligence to advance their knowledge of supply networks?

In this guide, we'll detail how location, tracking and positioning solutions from HERE can help manufacturers overcome key challenges and set them on a path towards complete visibility of their supply chain.

Did you know Ovum ranks HERE as the world's leading location platform?

In the latest edition of its Location Platform Index: Mapping and Navigation report, Ovum assessed 14 major location platform vendors, ranking them according to mapping, technology, and reach across developer communities and industries.

For the first time, HERE was placed higher than Google in the overall ranking. Ovum highlighted progress HERE made in high-definition and indoor mapping, as well as in its introduction of new technology supporting secure and efficient over-the-air delivery of software and data.

Go here for more information

... And Counterpoint named HERE the 'undisputed leader' in location-based services?

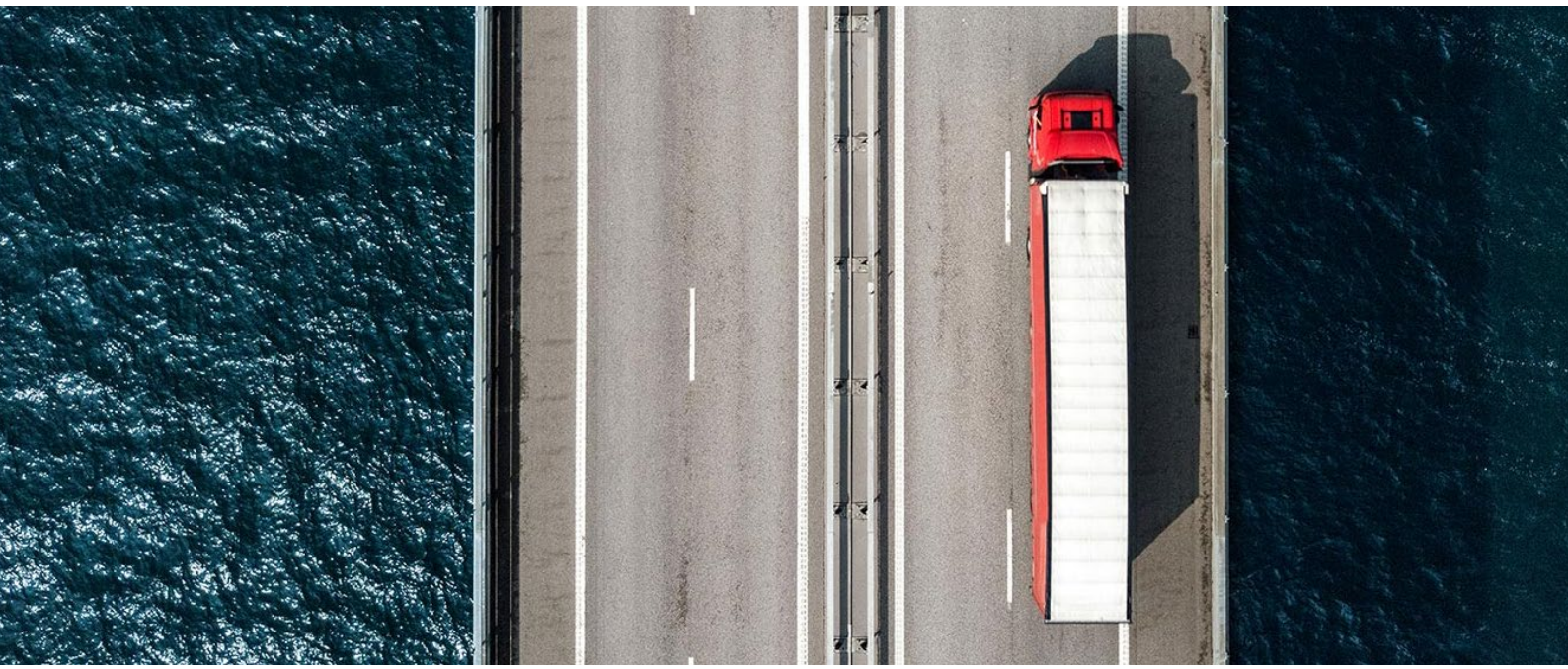
The 2018 Counterpoint Research Location Ecosystems Update compared 16 location platform vendors, including Google, TomTom and Mapbox.

Counterpoint recognized HERE's progress in strengthening its developer offering, analytics and location intelligence capabilities.

Go here to read more

Challenge:

Increasing asset traceability



With real-time location, assets can be traced across factories, warehouses and showrooms, and while in transit on trucks, on trains, and as ocean freight. For manufacturers, increasing traceability will help to minimize misplacements, delays, and shipping costs.

Misplaced assets

If a truck arrives at a warehouse and unloads at the wrong dock, costly delays can occur as other assets are being located and redeployed.

By utilizing HERE's suite of tracking and positioning technologies, manufacturers can seamlessly chart the transition of assets from outdoor to indoor locations, enabling them to either ensure assets are delivered to the right place and easily track down those that are not.

Thanks to use of Wi-Fi and Bluetooth beacons, HERE Positioning and Venues can also establish the exact indoor position of an asset, enabling manufacturers to ensure higher levels of visibility throughout their factories, warehouses and other locations that GPS can't reach.

HERE's suite of solutions makes use of existing Wi-Fi and BLE infrastructure in factories and warehouses, providing visibility through the supply chain with a reduced need for new equipment.

Challenge:

Overcoming a lack of real-time ETAs

Precise location data can provide supply chain teams with vital information to help them avoid surprises and stay in control.

Reducing buffer time

A consequence of not having real-time asset visibility is ETA buffering. To compensate for potential delays, manufacturers often build in extra time to prevent operations from being held up by late deliveries.

The HERE suite of technologies provides precise, end-to-end tracking and accurate, real-time locations. This means manufacturers can create leaner, more cost-efficient supply flows with ETAs that reflect the on-the-ground truth of assets.

Visibility between stage-gates

Currently, most supply chains rely on stage-gating. When goods leave a factory, their departure is recorded. But until they arrive at its next staging point, the manufacturer won't know their location.

At any time, goods and components worth millions of dollars can be moving around the world. This presents a significant opportunity for delays, incidents and weather events to impact ETAs.

Without real-time visibility, manufacturers only find out about problems when deliveries fail to turn up or when they telephone the deliver company. Often, this is too late to prevent operational impacts and costly hold-ups as supply chain teams are forced to spend significant time reacting.

With real-time location intelligence from HERE, these teams could predict the impact of disruption and re-plan without undue impact on operations. HERE uses multiple positioning technologies – including network and satellite – to accurately track assets, even under challenging conditions, so that manufacturers can stay updated on their progress in the supply chain.

If supply chain teams are empowered with knowledge about late-running deliveries this could help proactive re-planning – such as reassigning docks, bringing in alternative shipments, ensuring staff are in the right location, and alerting other business functions about the shift operational priorities.

Challenge:

Ensuring process efficiency

Picture the scene: The carrier moving your goods to the delivery center is half-full, warehouse cradles lie empty, and factory production has slowed because docks are overflowing with products that have yet to leave.

Until you pick up the phone and checks are made, establishing even the simplest view of an outbound supply chain is tough – and all the while, there's pressure on your transport costs and service levels.

Manual checks

Legacy processes for moving and storing finished goods are over-reliant on manual activity. Without supply chain visualization and location data providing feedback in real time, an operative will need to perform a physical check to ensure an asset's whereabouts.

Not only is this time-consuming and costly, it restricts the ability to drive out inefficiencies by having an overall view of the chain and optimizing in real time. Of course, manual checks also create a greater opportunity for errors to creep into the process.

Leaner operations

With Tracking from HERE, manufacturers can access a continuous and accurate record of an asset's location through the supply chain – both indoor and outdoor. Establishing an accurate, real-time view will help manufacturers make efficient use of transportation and warehousing:

- Fewer trips means fewer delays and a lessened reliance on transporters meeting ETAs
- Greater visibility means less need for excess storage capacity and prevents stock levels from running low or becoming overabundant in warehouses

In fact, through use of historical data, indoor positioning technology from HERE even works offline to enable an asset's location to be known in signal blackspots.

Energy efficient

To ensure its tracking solutions encourage greater efficiency, HERE has developed technology to batch communications and, therefore, optimize power consumption. Not only does this minimize battery usage, it also enables tracking viability for multiple use cases. In addition, HERE also drives energy efficiency by using network positioning rather than (or as a supplement to) GPS. It can also define a 'geofence' on an offline device ensuring that it will only communicate if it moves, again saving battery life and data costs.

Challenge:

Moving toward a digitized future

Supply chains will soon undergo fundamental change. Digitization will sweep through manufacturing and reshape the way it moves finished goods from the factory to the delivery process.

Transportation and warehouse operators may already use digital solutions to keep tabs on assets, but often these are siloed systems - overseeing legacy processes - that are yet to contribute to a seamless integration of data through a supply chain.

This lack of an end-to-end solution limits the opportunity to optimize, creates fragmentation in the solution market, and makes it difficult to forecast accurately. However, digitization will remove many of these barriers.

IoT and tracking

A digitized supply chain relies on the deployment of Internet of Things (IoT) devices that, in turn, require location tracking to function properly. Tracking also requires monitoring capabilities, comprehensive digital storage mechanisms and analytics to optimize the system. In it's tracking, HERE use secure communications so that customer data remains owned by the customer.

Additionally, HERE offers capabilities including routing, geo-fencing, and positioning for indoors and outdoors.

Creating a digital capability

The HERE Open Location Platform (OLP) provides access to data and location services in a self-service development environment, enabling developers to quickly build, test and deploy services tailored to their needs.

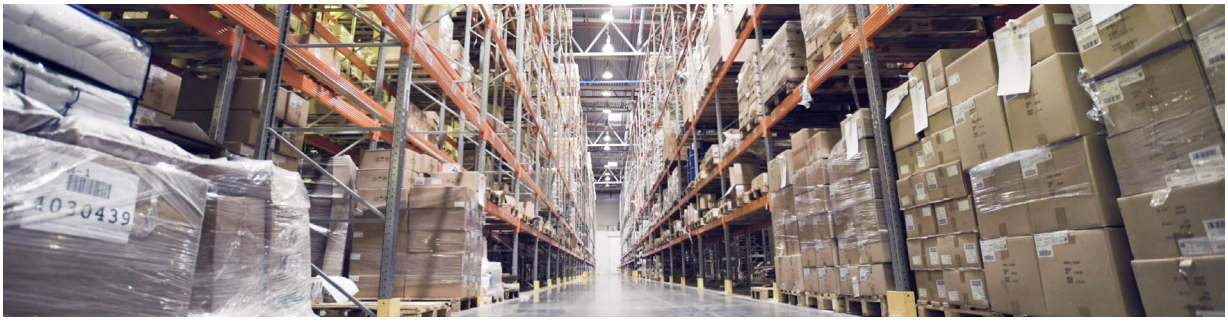
The OLP includes a data license (for content) plus a platform (as a service) that runs in the cloud. The Tracking Cloud connector API addresses outdoor and indoor locations by integrating with existing infrastructure or other hardware trackers.

Device vendors are also able to embed HERE Tracking libraries on the tracking chipset to enable even more use cases to enjoy easy access to all the benefits of location intelligence.

A smarter supply chain

Gain visibility of assets through the chain. Use insights to optimize in real time.

1 **Understand warehouse levels**



2 **Assign appropriate factory shipments**

3 **Receive live delay alerts**

4 **Reassign asset transportation**

Discover more on how HERE can help manufacturers to optimize their supply chains

HERE can help automobile and heavy equipment businesses gain a real-time view of their supply chains with location intelligence. If you'd like to find out how HERE can empower manufacturers to create more efficient storage and delivery processes, visit 360.here.com and here.com.

Contact us

About HERE Technologies

HERE, the Open Location Platform company, enables people, enterprises and cities to harness the power of location. By making sense of the world through the lens of location, we empower our customers to achieve better outcomes – from helping a city manage its infrastructure or an enterprise optimize its assets to getting drivers to their destination safely. To learn more about HERE, including our new generation of cloud-based location platform services, visit http://360.here.com