

**EBOOK** 

# Deliver unique solutions to optimize logistics performance—while improving sustainability

With location data and services from HERE and AWS



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## Introduction: The next precision frontier in location

More and more companies are generating map content and location-aware applications. At the same time, fleet optimization and logistics are being affected by a multitude of factors like driver shortages, fuel costs, and the need to meet sustainability goals. Location data is the key to providing differentiated services, experiences, and map content to stay competitive. But you need a platform you can trust so you can use your proprietary data and insights.

HERE data and services—backed by Amazon Web Services (AWS) solutions—provide accurate and real-time location data, so you can enrich your own data and quickly develop location-aware applications to optimize fleet and logistics management sustainably. Here are just a few of the benefits of building solutions supported by HERE and AWS.



#### Your data plus complete and accurate location data—all under your control

With HERE, you can deliver fleet, transportation, and logistics solutions quickly with reduced latency, higher performance and efficiency, scalability for right-sizing workloads, and cloud-based development provided by AWS. High-quality, relevant and fresh data helps you create accurate, up-to-date maps and customer layers to add to your applications. Your data, enriched with location coordinates context, remains in your control. Map data and attributes specific to your use case increase the precision of what you build.



#### Flexible development and deployment made fast and easy

Developers can access enterprise-location services directly from HERE or as prebuilt applications and deploy them natively on AWS with a few keystrokes. HERE is versatile and flexible with toolsets, workspaces, and over 200 APIs that enable customization, filtering out what isn't necessary.



#### The power, performance, and efficiency of the cloud

HERE solutions—combined with AWS computing power—deliver results that improve the operational performance of an organization. You benefit from the reduced latency and the scalability needed to right-size workloads, along with the performance, power and efficiency of the world's most comprehensive and widely adopted cloud.

Whether you are an enterprise or independent software vendor (ISV), these benefits help you address three main use cases while easily accessing HERE and AWS services. This ebook provides the details.



## Develop innovative product experiences

For enterprises and ISVs alike, creating innovative location-aware products makes it possible to stand out from competitors. These products can deliver better customer experiences, and they can drive engagement, operational efficiency, and revenue growth.

#### Innovation and differentiation require flexibility

HERE has decades of experience in mapmaking, location technology, and spatial intelligence that support the flexibility and versatility you need to deliver unique products and services. With HERE and AWS, you can layer your proprietary data on top of <u>industry-leading</u> geospatial data. Leverage full flexibility without compromising on consistency and integrity to deliver custom applications, maps, and AI/ML capabilities, while keeping 100% control of your in-house proprietary data. Plus, your data is also protected by HERE's privacy and anonymization tools—supported by AWS security.

#### Enterprises: Build for competitive edge

A comprehensive developer toolkit provides what your IT and development teams need to use to incubate, test, and simulate new applications that give your enterprise a competitive edge—backed by AWS scalability and services. Your developers can access HERE enterprise-location services directly or as prebuilt applications from a serverless repository and deploy them natively on AWS. And you have the versatility to layer your company's proprietary data with open-source and commercially available data and HERE location data to reveal unique insights.

#### ISVs: Deliver innovative application experiences

To build the fleet, transportation, and logistics products with innovative experiences that your customers need, your developers can use HERE software development tools. HERE provides everything necessary to create, connect, and monetize unique applications. An intuitive low-code/no-code environment provides your developers with access to fresh and relevant data that they can deploy with a click.

With secure, high-quality, relevant, and fresh data from HERE and the power, performance, and scalability of AWS, you can deliver innovative and end-to-end fleet, transportation, and logistics applications. The next chapter explains how.



## Plan and optimize end-to-end logistics

Reducing delivery times and decreasing operational costs are more important than ever in fleet management and logistics. Yet the multitude of variables to consider when planning optimal routes and operations continues to grow—driver shortages, fuel costs, market fluctuations, shipping delays, and regulations. Paper is a problem, too. In a survey conducted by ABI Research, 72% of respondents say that between 10-50% of their fleet tracking relies on manual documentation.<sup>1</sup> (For more statistics, access the full report.)

#### Truck-specific data and artificial intelligence lighten the load

Truck-specific data in <u>HERE Fleet Optimization Package</u> helps ensure the optimal deployment of a multi-vehicle fleet. The HERE Fleet Optimization solution—which leverages HERE AI in routing and tour planning optimization—can deliver robust map content and complex route planning and scheduling scenarios for navigating real-time traffic and restrictions. Delivery times can improve, thus reducing operational costs. And the security and resilience of AWS services provides the reliability you need to grow.

#### Enterprises: ETA accuracy all the way to the last meter

Full, end-to-end supply chain visibility is hard to achieve. But HERE Location Services with truck-specific data and Fleet Optimization software with AI provide new levels of asset visibility. The result? ETA accuracy all the way to the last meter. APIs and content bundles are tailored to the unique needs of trucking and logistics industries so your developers can add dynamic routing, fleet monitoring, and ETA predictions to your supply chain software. They can also control how routing software responds to disruptions and add unique business logic to routing algorithms through "Bring Your Own Data" architecture and custom routing.

#### ISVs: Apps full of location data with rich attributes

Use HERE APIs, content bundles, and AI algorithms to build logistics applications full of location data with rich attributes to give customers a competitive edge. These attributes include road restrictions, bridge heights, road topology, and topography. Meet customer needs for improved delivery times and lower operation costs by leveraging HERE's APIs to create solutions for complex commercial fleets that improve ETA accuracy and truck visibility, reduce bridge crashes, and more. Fine-tune specific features and functionality, such as fleet routing or positioning.

Not only can HERE Location Services deployed natively on AWS help deliver operational efficiency gains, but they can help you progress towards CO2 reductions and broader sustainability goals. In the next chapter, you can discover how.



#### Achieve sustainability goals

In the global logistics industry, environmental resilience is a key topic. Customers, partners, regulators, employees, and financial institutions have made sustainability a priority, along with operational efficiency. Companies are looking to increase sustainability and take actions that have a long-term impact.

#### Real-time data in logistics solutions supports sustainability

Build better with more real-time data to optimize delivery and reduce CO2 emissions. Powered by HERE location technology and the infrastructure provided by AWS, you can deliver solutions that promote sustainability, create more livable cities, and enhance infrastructure. HERE map data and services also help you and your customers understand the current scope of CO2 emissions, set a benchmark, and define an action plan to reduce them.

#### **Enterprises: Contribute to a sustainable future**

Together, HERE and AWS help your enterprise contribute to a sustainable future. Build in-house solutions on AWS that not only measure and reduce emissions to meet environmental goals and regulations, but also deliver more differentiation, efficiency, savings, and safety. For example, you can use HERE map data and routing tools to predict the CO2 emissions per route based on factors like vehicle and fuel type, traffic conditions, and road topography.

#### ISVs: Make logistics cleaner and safer for customers

Develop applications and automated systems that make logistics cleaner and safer for your customers using HERE APIs and location services deployed on AWS. Create solutions that optimize electric vehicle routing and charging, transportation planning, fleet utilization, and driver efficiency. Customers can use these solutions to fine-tune time windows, priorities, and more to reduce fuel consumption and CO2 emissions.

AWS offers a broad and deep set of capabilities designed to help you reach your sustainability goals. In 2023, AWS achieved its own goal to match 100% of the electricity it uses with renewable energy. AWS is committed to achieving Amazon's goal of net-zero carbon by 2040.

#### LOGISTICS INDUSTRY TRENDS:

#### 2024 survey results

On average, 70% of German, UK, and U.S. transportation and logistics (T&L) professionals believe their company has made some progress toward real-time supply chain visibility.

On average, 40% of T&L professionals in those same countries say they have sustainability goals, and 27% have some under development.

Among the barriers to technology adoption for addressing logistics and fleet challenges, 8% said they don't know where to start, 9% lack investment ROI, and 11% lack internal resources.

Find more information in the AWS and HERE Transportation and Logistics survey report.



At Holcim, we spend billions of dollars on logistics every year, transporting hundreds of million tons of concrete to construction sites. Understanding roads, road traffic, and navigation is a key element to making our operations more sustainable and efficient. With HERE, we have a partner who's able to provide mapping and navigation services across our global footprint, and with AWS, we have the technology we need to shift our entire business to the data-driven cloud."

**Philip Leutiger**Chief Digital Officer, Holcim

Read the full Holcim story >



### Right-sized, scalable products built to work on AWS

Leverage the performance, power, efficiency, and security of AWS to build fleet, transportation, automotive, and livable city solutions with HERE. HERE products are built to run on the AWS Cloud, with reduced latency and the scalability to right-size workloads for enterprises and organizations that aspire to grow. And you can deploy HERE Location Services confidently knowing that the map rendering, geocoding, search, and routing, with global coverage and local flavor, are from HERE.

#### Easily access and deploy HERE solutions in AWS Marketplace

Select HERE services are available in AWS Marketplace so you can take advantage of streamlined procurement, flexible pay-as-you-go pricing, control, and governance. AWS Marketplace makes it easy for customers to find, buy, deploy, and manage software solutions in a matter of minutes. HERE Fleet Optimization solutions can be found in AWS Marketplace including HERE Tour Planning and HERE Location Services.

#### **HERE Route Optimization Solution**

HERE Route Optimization is a many-to-many route planning and optimization solution that helps transportation and logistics companies and ISVs solve multi-vehicle routing challenges and improve route efficiency. The goal is to make sure that total time on the road is used to make effective use of available driver hours and to minimize costs. HERE algorithms for each vehicle help to improve operations, increase efficiency, and lower costs. To learn more, visit the HERE Tour Planning page in AWS Marketplace and schedule a demo.

#### **HERE Location Services**

HERE Location Services make it easy for developers to bring enterprise-grade location intelligence to AWS applications and solutions. AWS developers can access location APIs including Geocoding, Search, Maps, Navigation, Routing, Fleet Telematics, and more. These REST and JavaScript APIs open new location intelligence opportunities in transportation and logistics. For more information, visit the <u>HERE Location Services page in AWS Marketplace</u> and schedule a demo.



### Discover all the HERE services available in AWS Marketplace

You can find other HERE services in AWS Marketplace. Visit the <u>HERE</u> <u>page</u> to learn about them and schedule a demo.



## HERE and AWS: Delivering accuracy, flexibility, and scalability

Together, HERE and AWS offer a trusted platform for integrating proprietary data with accurate, real-time location information. Whether you are an enterprise or ISV company, you can use HERE solutions on AWS to quickly develop innovative product experiences as well as optimize fleet and logistics management.

You can combine your own data with comprehensive location context, maintaining full control as you create precise, customized applications. You also get the flexibility you need for rapid development and deployment of logistics and fleet management applications that provide ETA accuracy all the way to the last meter.

Learn more about how AWS and HERE collaborate to deliver benefits to customers, visit <a href="https://www.here.com/aws">https://www.here.com/aws</a>.

To leverage pay-as-you-go pricing models and request a demo, visit AWS Marketplace for offerings that include <u>HERE Tour Planning</u> and <u>HERE Location Services</u>.



- Public Sector
- Automotive Software Competency
- Supply Chain Software Competency
- Public Safety Software Competency