HERE Positioning

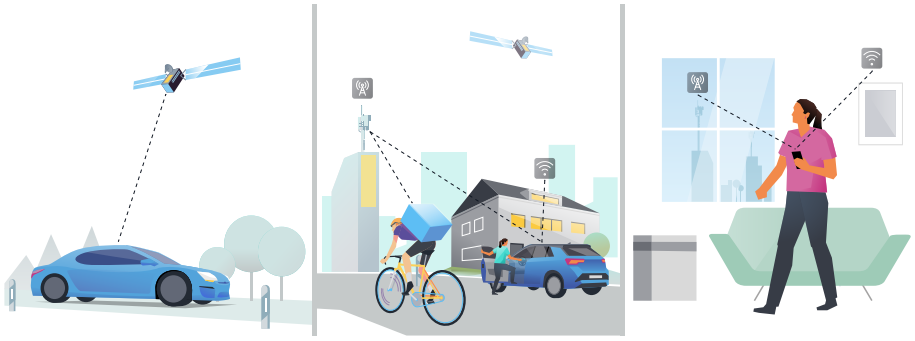
Locate devices and assets indoors and outdoors

HERE Positioning is a suite of cloud-based services and SDKs that accurately locate devices and assets with high precision both indoors and outdoors using GNSS (Global Navigation Satellite System) as well as cellular and Wi-Fi signals and sensors.

HERE Positioning has three components that can work together or independently to provide a comprehensive solution for accurate positioning:

- → HD GNSS Positioning
- → GNSS Positioning
- → Network Positioning

In outdoor environments, HERE Positioning provides hyper precise, sub-meter level location accuracy using the HD GNSS satellite system. In urban environments and indoors, where the satellite signal is compromised or not available, HERE Positioning utilizes a database of constantly updated mobile Cell IDs and Wi-Fi access point measurements to locate devices with high precision. For private environments, where crowdsourcing is not optimal, HERE Positioning uses Wi-Fi signals to provide radio mapping tools.



Key industry use cases

- → **Automotive:**
  - → Provides lane-level guidance for ADAS
  - → Supports assisted and autonomous driving and parking
- → **Fleet management:**
  - → Helps reduce inaccuracies that take drivers to the wrong location
  - → Helps recreate drivers' paths to facilitate post-trip analysis
  - → Helps locate assets and drivers
- → **Urban mobility**
  - → Prevents spoofing of GPS locations or jamming GPS signals in ride-sharing/ride-hailing by using complementary positioning technologies (Wi-Fi, Cell ID)
  - → Helps locate riders and assets
- → **Public sector:**
  Helps route calls to appropriate dispatch or emergency response centers by using Wi-Fi to determine a caller's location
- → **Device and chipset manufacturers:**
  Enables Wi-Fi-only devices to become location aware using cell and/or Wi-Fi signals

Faster time to fix for devices

Reduce time to first fix (TTFF) for satellite-based positioning for different types of devices and chipsets so they can be located faster in both online and offline conditions.

Scalable and accurate positioning indoors

3D positioning indoors through crowdsourcing using device sensors and wi-fi based positioning.

Accurate positioning when satellite signal is compromised

Accurately locate devices and assets in environments where satellite-based positioning may be compromised or unavailable due to the presence of buildings, trees, bridges, tunnels or atmospheric conditions, as well as indoors when GPS is unavailable.

Want to talk? We do, too. Get in touch here.

Product features

GNSS positioning:

→ A-GNSS Positioning (Online and offline)

→ HD GNSS Positioning (Streaming)

Network positioning:

→ Cell ID based positioning

→ Wi-Fi based positioning

→ HD Wi-Fi positioning

→ Hybrid (GPS, Cell, Wi-Fi, sensors)

Differentiators

Seamless outdoors to indoors transitions: Enables solutions that provide end-to-end positioning under a wide range of environmental conditions and requirements.

High precision: Satellite-based positioning with accuracy of up to 0.2 meters. Where satellite signals are compromised, precision comes from Wi-Fi access points and cell tower density.

Scalable and low cost: HD GNSS Positioning works with mass-market devices without the need for extra hardware. Network positioning benefits from global machine learning as well as a reliable and scalable infrastructure.

Flexible implementation: The SDK is available for client-side network positioning development. With HERE HD GNSS Positioning, a reference implementation is provided with a positioning engine.

Global coverage: Worldwide coverage with multi-cloud availability that can be deployed quickly and easily anywhere, including China and Japan. Available on AWS and Azure.

Online and offline: When network connectivity is unavailable, devices can locate themselves through offline radio map tiles. This provides a faster TTFF with low power consumption.

On-premises positioning: A self-hosted version of Network Positioning for customers who need additional security. It observes Wi-Fi access points through a device that is hosted on the customer's database for more immediate results.

Data formats
API

Coverage
Global

Update frequency
Continuously

Delivery
→ As a data stream
→ As a single shot request

About HERE Technologies
HERE has been a pioneer in mapping and location technology for almost 40 years. Today, HERE's location platform is recognized as the most complete in the industry, powering location-based products, services and custom maps for organizations and enterprises across the globe. From autonomous driving and seamless logistics to new mobility experiences, HERE allows its partners and customers to innovate while retaining control over their data and safeguarding privacy. Find out how HERE is moving the world forward at **here.com.**

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