HERE Positioning is a suite of cloud-based services and SDKs to accurately locate devices and assets through the use of satellite (Global Navigation Satellite System, known as GNSS), cellular and Wi-Fi signals in different environments – outdoors under open sky conditions, urban environments where satellite signals may be compromised, as well as indoors. HERE Positioning has three components: HD GNSS Positioning, A GNSS Positioning and Network Positioning. They work together or independently to provide a comprehensive solution for highly accurate positioning.

HERE Positioning has applications across industries. In **automotive**, it can provide lane level guidance for ADAS, assisted and autonomous driving and parking. In **fleet management**, it can reduce inaccuracies that put drivers in a wrong location. It can also be used to recreate driver paths to aid post-trip analysis. For **network operators**, it provides Z level information – like the floor in a multi-story building - to determine the precise location of emergency calls.

HERE Positioning helps **public sector agencies** route calls to appropriate dispatch or response centers by using Wi-Fi to determine a caller's location. **Device and chipset manufacturers** can enable Wi-Fi-only devices to become location aware using cell and/or Wi-Fi signals. For **ride-share/ride-hailing operators**, HERE Positioning prevents drivers from spoofing or jamming GPS locations, as well as helping locate assets, riders and drivers.
How does it work?

The three components of HERE Positioning ensure accurate positioning under different conditions. HD GNSS Positioning provides hyper precise sub-meter level accuracy using a satellite system under open sky conditions. A GNSS Positioning reduces time to first fix (TTFF) of devices. In urban environments and indoors, when satellite signal is compromised or not available, Network Positioning uses 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 also provides radio mapping tools that use Wi-Fi signals.

- A GNSS and HD GNSS Positioning support GPS, GLONASS, BeiDou, Galileo and QZSS
- Network Positioning uses global and crowdsourced cell IDs, Wi-Fi, HD Wi-Fi and hybrid positioning that is constantly updated
- Optimized for power and data usage
- Global data centers with premium SLAs support critical use cases

Differentiators

**Seamless outdoors to indoor 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 up to 0.2 meters. Where satellite signals are compromised, exceptional accuracy comes from Wi-Fi access points and cell tower density.

**Scalable and low cost:** HD GNSS Positioning works with mass-market devices and doesn't need extra hardware. Network positioning benefits from global machine learning, reliable and scalable infrastructure.

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

**Global coverage - with multi-cloud availability:** Can be deployed quickly and easily anywhere - including in both 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 needing added security. Uses Wi-Fi access points observed by a device on a customer hosted database for more immediate results.

About HERE Technologies

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 [http://360.here.com](http://360.here.com) and [www.here.com](http://www.here.com).

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