Global submeter accuracy for the mass-market

HERE HD GNSS Positioning is a cloud-based service that provides sub-meter positioning for devices equipped with GNSS receivers, so that it can substantially improve positioning accuracy for average mass market devices. A global product that removes Iono/Tropospheric delays by merging a GNSS signal on several frequencies and applies orbit and clock corrections to achieve better positioning performance.

This service improves location accuracy of mass-market devices and puts it on the same level as high-grade geodetic receivers. This means that mobile devices, cars and IoT gadgets can locate themselves similar to a high end receiver. HERE also guarantees SLA of 99.9% service uptime (can be increased for Automotive and Industrial use cases).

This precise positioning service can be combined with other HERE products such as HERE HD LiveMap and HERE Lanes. It can bring a unique user experience of lane-level car navigation, precise AR gaming and accurate measurements for sport-and-fitness applications.

How does the service work?

HERE HD GNSS Positioning works as any other streaming service. However, instead of a video, the end-user receives a GNSS correction data which is then streamed by a HERE Platform via a secured (TLS) connection.

In order to obtain precise location, the end-user device must have a software called Positioning Engine (PE). If a company has its own Positioning Engine, HERE will provide a correction stream with an API. If the company does NOT have a PE, HERE will provide a high-quality HD GNSS Client that guarantees performance and reliability.

Want to talk? We do, too. Get in touch here.
Available HD GNSS options for customers:

- **Correction service (Q2 2020):** If a customer already has its own positioning engine or hardware with a pre-installed positioning engine, HERE will provide access to a correction service which is compatible to most PPP positioning engines.

- **E2E (End-to-End) solution (Q4 2020):** HERE provides a positioning engine and a correction service to a customer. Easy integration on both OEM and application layer (Android).

- **Post-Processing (late 2021):** HERE provides a Web-UI that allows customers to process GNSS logs (that were previously collected) with HERE HD GNSS and obtain precise plots and charts online.

HERE HD GNSS integration methods:

- As a standalone library built for a specific platform (Android, Linux, RTOS)
- A part of the HERE Mobile SDK
- A totally independent web-service with post-processing functionality

**Unique Features**

**Global:** Does not require a base station network, therefore is a global service (incl. China).

**Sub-meter Location:** Able to produce next-gen location output based on improved correction data.

**No Additional Hardware:** It can work with any device that provides access to raw GNSS measurements (i.e. Android).

**Anti-fraud (Planned for 2021):** It can detect spoofing, jamming and behave accordingly.

**Sensor Utilization:** If a device is equipped with IMU, positioning performance will be extended to cover tunnels, parking lots and areas with limited GNSS.

**Low-bandwidth Transmission:** It is optimized to be used with mobile subscription (i.e. consume minimum amount of traffic).

**Quick Positioning:** Provides instant position fix and less than 10s to obtain to a sub-meter level positioning accuracy.