

# Indoor Positioning FAQs

**Q: What is HERE Indoor Positioning?**

A: HERE Indoor Positioning, a part of HERE Mobile SDK for Business, gives access to services that enable high accuracy 3D indoor positioning capabilities within a given venue or space.

**Q: What infrastructure is used with HERE Indoor Positioning?**

A: Standard Wi-Fi deployment or standard Bluetooth beacons can be used (Apple iBeacon or Google Eddystone).

**Q: Can I use my own beacons?**

A: Yes, you can, but beacons must be Eddystone or iBeacon compatible and you should follow our general guidelines about the beacons, including power saving, transmit powers and transmit intervals.

**Q: Is there automatic floor detection with HERE Indoor Positioning?**

A: Yes, it has >95% automatic floor detection.

**Q: What are the key components of HERE Indoor Positioning?**

A: The key components are HERE Mobile SDK with HERE Indoor Positioning and the HERE Indoor Radio Mapper tool.

**Q: What is the HERE Indoor Radio Mapper tool?**

A: HERE Indoor Radio Mapper is an Android-based deployment tool that is used to collect information on Wi-Fi networks and Bluetooth beacons in the venue. This data collection is a pre-requisite for indoor positioning. Data is collected with the help of an indoor map. The collection requires the user to pinpoint the user location on the indoor map and walk in straight lines. The indoor map can be a HERE private/public venue map or customer's own indoor map. After the radio data collection, the tool can be used to verify the positioning accuracy, data collection quality and radio infrastructure quality.

**Q: Can HERE Indoor Positioning work offline?**

A: Yes, initially the device connects to the HERE Cloud to download the positioning data, but after this initial connection connectivity is not required, since all the computations take place in the device. This preserves the user privacy as no location data is carried to the cloud.

**Q: What other HERE services does HERE Indoor Positioning integrate with?**

A: HERE Indoor Positioning integrates seamlessly with HERE Network Positioning, HERE Maps, HERE Venue Maps, and indoor and outdoor routing.

**Q: Which operating systems is HERE Mobile SDK currently available for?**

A: Android and iOS are available. Please note that iOS supports only Bluetooth, while Android supports both Wi-Fi and Bluetooth.

**Q: What are the recommended devices for radio mapping?**

A: HERE recommends to use Acer Iconia One 10 B3-A20B 32GB Wi-Fi edition and Google Pixel XL for data collection.

**Q: Are there prerequisites for the radio infrastructure?**

A: Yes, for Wi-Fi access points a density of 5-10 observable access points at any given location and even distribution are required for the best performance. For Bluetooth beacons, one beacon should be deployed roughly every 10 meters.

**Q: What is the accuracy of HERE Indoor Positioning?**

A: Typical accuracy is 2-5 meters horizontal and >95% floor detection.

**Q: As a developer, can I control which positioning methods are used?**

A: Yes, you can. HERE Positioning API supports GNSS-based positioning (GPS, GLONASS, etc. depending upon the device features), cell and Wi-Fi network-based positioning in addition to indoor positioning (Wi-Fi, Bluetooth). If you don't want to control this yourself, HERE Mobile SDK does this for you.

**Q: Does HERE Positioning switch automatically from indoor to outdoor positioning?**

A: Yes, it does. It is possible for the developers to control this explicitly, but you can also leave this to HERE Mobile SDK to handle.

**Q: As a developer, can I pre-cache positioning data for offline use?**

A: Yes, HERE Mobile SDK provides an API for pre-caching the data so that network connectivity is not needed.

**Q: Is HERE Indoor Positioning fast to deploy?**

A: Yes, it is. When installing the beacons, the beacon locations need not be recorded – all that matters is the beacon density. Then you simply need to walk around with the Indoor Radio Mapper tool to record the signals from the various beacons.

**Q: How do I get access to HERE Indoor Positioning?**

A: HERE Indoor Positioning is available through our Mobile SDK Premium package. Visit <https://developer.here.com/develop/mobile-sdk> and use the 'Contact Us' form for access to or evaluation of HERE Indoor Positioning.

**Q: What are the steps to enable HERE Indoor Positioning in my venue?**

A: If you have adequate Wi-Fi coverage in the venue and Android-only support fits to your needs, then you only need to survey the venue with the HERE Indoor Radio Mapper tool, after which you can use HERE Mobile SDK to locate the device indoors. In case iOS support is also needed, or the Wi-Fi coverage is poor, you will need to deploy Bluetooth beacons first.

**Q: Is it fast to develop using HERE Mobile SDK?**

A: Yes, it is. HERE Mobile SDK comes with a large number of example projects that get you going in no time.

**Q: Does HERE have any guidelines for indoor deployment?**

A: Yes, please refer to the indoor positioning documentation: (<https://here.com/en/products-services/products/here-positioning/here-indoor-positioning>)