Juniper and HERE
Mapping the Future of
Indoor Location Services

Companies that can take advantage of indoor location have a leg up on the competition. They can elevate the mobile experience, resulting in improved service, better user satisfaction, streamlined operations, and more.

Juniper partnered with HERE to facilitate the deployment of indoor location services. More specifically, HERE's map software works seamlessly with Juniper's wireless platform to deliver high accuracy, low latency indoor wayfinding and virtual beacon proximity services.

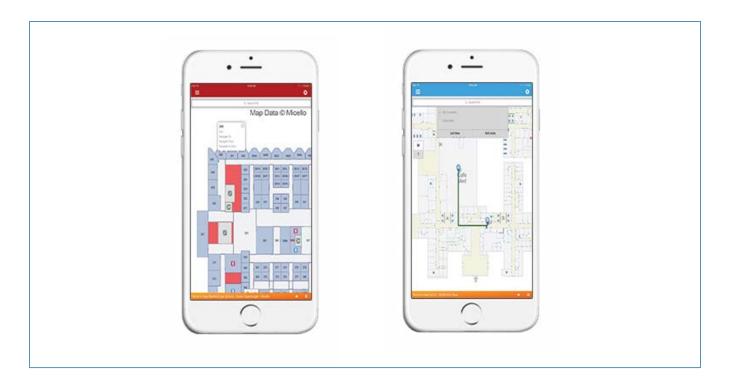## HERE INDOOR MAPS AND INDOOR WAYFINDING

A comprehensive set of tools permits HERE Technologies to produce indoor maps, quickly and at scale, keeping costs down to a minimum, resulting in highly competitive pricing. To get started, building owners provide floorplans of their indoor spaces in a variety of formats (e.g. CAD, PDF, SHP). HERE uses these to extract geometry and labels and add routing graph information, including any directionality and maneuver restrictions such as inside parking garages. Finally, connections are added between the building's entrances and exits and street segments outside.

In the last few years, HERE has generated indoor maps for over 25,000 venues around the world. For Juniper Mist™ Systems and our mutual customers, the steps to integrate with HERE include:

• Uploading your building's floor plan (CAD or PDF file) for processing

• Importing the map into Juniper Mist to build on their wireless platform

• Integrating the Juniper Mist location technology with the HERE SDK to show real-time indoor positioning and develop wayfinding capabilities

To learn more about HERE, please visit www.here.com and 360.here.com.

JUNIPER MIST LOCATION SERVICES

The Juniper Mist wireless platform was designed from the ground-up to handle the unique wireless needs of the smart device era. It combines cloud intelligence with on premise Access Points to simplify wireless operations and deliver high value location services via Wi-Fi and Bluetooth Low energy (BLE). Unique advantages of the Juniper BLE solution include:

High accuracy location–Juniper offers the best location accuracy with 1-3 meter accuracy and sub-second latency in most environments. Machine learning eliminates the need for BLE site surveys and provides the best user experience.

Virtual beacons–With Juniper's patented vBLE technology, you can deploy an unlimited amount of virtual beacons for proximity messaging with the simple click of a mouse. There is no need to purchase, deploy and manage separate physical beacons with batteries, eliminating headaches and up to 90% of BLE hardware costs.

Open APIs for easy integration–Juniper offers a mobile SDK for iOS and Android with three types of APIs for seamless integration with complementary products, such as the Connexiant Medinav mobile application.

Both Juniper and Connexiant provide location based analytics that let you track a variety of stats, including visits, dwell times, transit times, and more. or the library. A doctor can quickly be located within a hospital for an emergency surgery, or to save a life. The possibilities are limitless in terms of the value of global asset search and location. Juniper brings Mist AI to the table for rapid problem awareness, and HERE's application provides the insight needed to react leading to faster resolution and a proactive approach to end user experience.

Next Steps

To learn more about the joint Juniper-HERE solution, please contact your HERE or Juniper Mist representative, or visit www.here.com and www.juniper.net.

About Juniper Mist

Mist built the first AI-driven Wireless LAN (WLAN), which makes Wi-Fi predictable, reliable, and measurable and enables scalable indoor location services like wayfinding, proximity messaging and asset visibility. In addition, Mist's AI technology plays a key role in bringing automation and insight across the full IT stack, delivering seamless end-to-end user experiences and substantial IT cost savings. In 2019, Mist was acquired by Juniper Networks and operates as a business unit focused on the AI-Driven Enterprise which combines Mist's next-generation Wireless LAN (WLAN) platform with Juniper's best-inclass wired LAN, SD-WAN and security solutions to deliver unsurpassed end-to-end user and IT experiences. For more information, visit www.mist.com.

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, please visit www.here.com and www.360.here.com.

HOW VBLE WORKS

1 Mobile device listens to the Juniper Access Point.

2 Juniper SDK sends information to the Juniper Mist cloud.

3 Juniper Mist cloud sends location and HERE map information and provides realtime updates.

4 Virtual Beacons can be created anywhere.