The Content Management System

The ION CMS is the **central hub** of the entire ION ecosystem. It is the platform where maps, devices, and data converge into a single operational interface. The CMS manages every stage of deployment: floor-map uploads, point-of-interest creation for wayfinding, device onboarding, system monitoring, and the activation of security and marketing-specific features.

Beyond configuration, the CMS functions as the layer that **interprets and organizes all data generated across the suite**. Inputs from tracking devices, the acquisition app, the rover, and end-user mobile applications are processed and translated into clear, actionable information. This includes real-time positioning, movement patterns, environmental insights, and historical analytics.

The CMS allows organizations to oversee their entire environment from a unified dashboard. It converts raw sensor data into structured intelligence, enabling accurate navigation, operational oversight, safety monitoring, and engagement workflows. As the ecosystem expands, the CMS remains the control point that synchronizes every component, ensuring consistent behavior across devices, tools, and deployments.

The Acquisition App

The Acquisition App is the tool operators use to capture the environmental data required to generate precise indoor maps. It guides operators along an optimized acquisition path to ensure complete coverage with minimal redundancy, while automatically fusing magnetic, Bluetooth, Wi-Fi, and motion data into a cohesive dataset ready for processing in the CMS.

Its workflow is streamlined for speed: a single operator can map large areas in far less time than competing systems, all while maintaining the consistency necessary for high-

accuracy navigation. Designed for field use, the interface minimizes operator burden, enabling rapid deployments and delivering repeatable results across diverse facility types.

The ION navigation SDK

The ION SDK enables client applications to deliver high-accuracy indoor and outdoor navigation to their end users. It integrates seamlessly into Android and iOS applications, providing continuous location updates through Hidonix's sensor-fusion engine.

The SDK ingests live data from geomagnetic signals, Bluetooth, Wi-Fi, and the IMU sensors (accelerometer, gyroscope, magnetometer) of the user's device. These inputs are combined to produce stable, real-time positioning with an accuracy of approximately **12 inches**, depending on the environment. The SDK supports multi-floor layouts, large campuses, and mixed indoor–outdoor transitions, offering a unified navigation logic regardless of the deployment scenario.

Its architecture emphasizes low power consumption, high refresh rates, and compatibility with a broad range of commercial mobile devices.