Making Sense of Your Data with QSense

QSense is a digital platform that leverages IoT technology for connecting with our customers’ Business, Consumers and Employees.

**Business**
- Provides better insight into customer journey
- Improves process efficiency

**Consumers**
- Improves consumer engagement by providing personalized promotions and location-based product details

**Employees**
- Improves employee engagement
- Provides real-time HR notifications
- Enables auto attendance management
Are you ready for the growing wave of connected consumers and employees?

The emergence of Internet of Things (IoT) technology is transforming the face of retail and many other businesses. In particular, ibeacon IoT technology, often used at brick and mortar retail locations, is changing the customer experience and journey.

The rise of the smartphone and beacon technology has merged with the savvy and connected consumer. That means that, more than ever, retailers must adopt the latest technologies and innovations that will meet the demands of smart shoppers at their brick and mortar stores. Proximity-based marketing with pushed promotions, location helpers based on ibeacons, store associate handheld devices, mobile checkout apps, and the greater dependence on consumer analytics are all market trends that are only going to grow in prevalence.

Consider the following insights:

- **Over 84% of shoppers use their smartphones in stores while shopping.**
- **The global ibeacon market is set to grow at a CAGR of 200.3% between 2015 and 2019.**
- **Over 64% of retailers say store associates use mobile devices to perform typical duties.**
- **1 in 3 shoppers use their smartphones to find information about a product instead of asking a store employee.**
- **1.6 billion coupons will be ready to be sent to consumers using beacon technology by 2020.**

IoT based iBeacons and connected technologies are being adopted now. Are you falling behind?

Proximity-based marketing leveraging innovative ibeacon technology is already enjoying widespread usage across industry verticals. For example, in 2015, Macy’s ran their yearly Black Friday sale across their 700 stores in the U.S. using push notifications and Bluetooth-enabled smart beacons. Just a few other examples include:

- **American Airlines** implemented the industry’s biggest deployment of ibeacons at DFW airport.
- **Starwood Hotels** uses beacons to replace hotel room keys in pilot program.
- **Major League Baseball (MLB)** uses beacons to sell merchandise and seat upgrades.
- **Japan Airlines** uses beacons in the Tokyo airport to improve business processes.
- **Nivea** uses ibeacons to help parents keep track of their children at the beach.
- **Walmart** launched an ibeacon trial with beacon-equipped GE light bulbs in stores.
Introducing QSense, an innovative ibeacon platform for today’s connected world

QSense is a platform, developed by Quinnox, that uses ibeacon technology to help businesses and facilities track their user journey within their premises.

QSense is a complete package in itself that can help enterprises:

- Boost sales with personalized promotions sent to consumers while they shop
- Make better business decisions with analytics on shopping or foot traffic behavior
- Increase customer satisfaction with individualized content pushed to your customers with real-time offers
- Make your operation more efficient with cost-effective inventory control and asset tracking
- Increase security with customized alerts for asset or location-based violations
- Make offices smarter, reduce friction and ensure that both employees and employers are happy
- Provide auto attendance management capabilities

QSense in Retail

For retailers, QSense provides location-based information and promotions to shoppers, and analytics for marketers and managers. QSense makes understanding customers easy.

By using the platform’s portal, retailers can create zones for every area on the premises, deciding what offers, deals, and product details, should be shown to customers entering each zone. When the customers are shopping, the mobile app tracks user movements like footfall, waiting/dwell time, path taken, and more, provide retailers with detailed analytics. This can help provide valuable insights into the shoppers’ behavior, personalized offers and deals, how people should be greeted at the entrance, and other factors that influence the in-store experience.

QSense for warehouse operations

The ibeacon technology of QSense can be read directly from any standard tablet or smartphone, eliminating the need for hand-held readers. Beacons themselves are extremely affordable and painless to deploy. Other advantages:

- **Inventory management:** Cost efficient tracking of items received, put away, picked up, or shipped.
- **Security:** Alerting administrators if secured assets have been improperly accessed, ensuring proper security measures are implemented.
- **Asset tracking:** Attaching an ibeacon to any valuable asset can identify and monitor its location in real-time and collect valuable metrics.

![Retail Image](image1)

![Warehouse Image](image2)
QSense helps make offices smarter, reduce friction and keep employers and employees happy.

**Auto Attendance Management:** QSense automatically captures the employees’ in/out time using the employee phone’s Bluetooth & iBeacon or by tapping on the NFC device installed at the office entrance, or by using the office Wi-fi. The app also helps capture attendance outside office using GPS – Mainly for sales / field force.

**Notifications and Announcements within Office:** Notifications about office events / announcements to specific individuals / teams within specific office units can be pushed to your employees. Verbal navigation & location information is provided to the visually challenged employees to guide their movements within the facility, thus reducing risks.

**Analytics of Employee Activities:** All the information that you need (for e.g., attendance, absentees, service usage, and exact location of the employees) is available and up-to-date.

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**Here is how QSense works**

QSense uses iBeacon devices to provide location-based information. These iBeacon devices work on Bluetooth low energy concept – designed for low energy consumption and cost, while maintaining a communication range similar to that of its predecessor, Classic Bluetooth.

QSense consists of iBeacon devices and a Receiver. The iBeacon device periodically broadcasts data to the mobile app, which detects these signals and sends it to the server. On the server side, the iBeacons map location-specific content. Information is displayed on the mobile app in a user-friendly HTML view. QSense allows vendor to do the above beacon-content mapping using the portal.
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**QSense platform components**

**Sensor API** – Customer mobile app communicates with the server through this API.

**Extension** - Integration with Enterprise system using MOND, the cloud based platform, which enables exchanging structure and semi-structure data with any enterprise system.

**Configuration Module** - Allows you to configure and manage your beacons.

**Sensor API** – Customer mobile app communicates with the server through this API.

**Customer Mobile App** – Provides an intuitive and consumer-friendly interface.

**Portal** – includes ibeacon management, dashboard and customer analytic reports.

**Analytics Engine** – Tracks the user and sends data to the server for processing and reporting.

**Report Module** – All customer analytic reports are generated by this module.

**Rule Engine** – Create business scenarios or actions, such as messages or promotions.
With **Q Sense**

making sense of your data

is no longer a nightmare!
Our team at Quinnox is here to help you explore how QSense may be able to add exceptional value to your enterprise. For an initial consultation on how this solution may be right for you contact us at digital@quinnox.com.

As an IoT Best Practice, Quinnox recommends enterprises that venture into implementing IoT as part of their digital transformation journey to ask and answer two very important questions:

- What will IoT bring to your business?
- Which business insights will help you achieve your business value?

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About Quinnox

Quinnox is a nimble and agile technology-driven business services enablement partner to forward-thinking enterprises. We drive digital business value, enable industry platforms and solutions, and simplify business processes. Quinnox has engaged in several major verticals, with expert teams that have highly specialized industry experience in financial services, manufacturing, and retail and consumer goods. As a midsize company, we focus on helping customers benefit and gain a competitive advantage from our "sweet spot" in unmatched expertise and enhancing the customer experience.

For more information, write to digital@quinnox.com.