



The Distributor View of Retail

Knowing the quantity with confidence at all times of distributor items in a retail store would allow retailers and distributors to operate at the proper level of inventory to meet the consumer demand. Traditional POS systems have been shown to be only 60-70% accurate at representing the actual inventory in the store available for sale. Handheld RFID readers have been shown to raise this accuracy to 90 – 95%. For the retailer, the downside of using handheld readers is twofold: 1) inventory data retrieved is untimely or inaccurate, and 2) the cost of the associate labor to scan and collect the RFID tags. Even if the retailer collects RFID data and passes it to its distributors, the data suffers from inaccuracies and untimeliness.

This situation would be vastly improved if the retailer and/or distributor had access to real-time autonomously collected inventory. The retailer would have much more accurate data to create replenish orders to the distributor since the retailer would have a much better picture of demand. At the next level, distributors could accept the real-time data directly giving them much better inventory and demand information which would allow them to reduce their risk in offering consigned inventory to the retailer.

Seeonic has developed the technology to automate the collection of real-time inventory. The Seeonic **SightWare**® module is installed at the point-of-purchase in the fixture, display or locker containing RFID-tagged items. **SightWare** periodically scans the items and collects the inventory count by SKU along with a serial number for each item, thereby allowing management of eaches. Seeonic works within the physical constraints of the fixture, display or locker to install antennas able to scan all of the RFID-tagged items. The Seeonic technology uses batteries and the cellular network for data communication requiring no IT or power infrastructure. Seeonic's business model is subscription-based with little to no capital investment up front.

Seeonic's technology to solve the tracking and forecast problems consists of two major elements, **SightWare**® and **Seeniq**®. **SightWare** is a small electronics module with connected antennas that can scan an area searching for RFID-tagged items. Connected to **SightWare** are Seeonic's proprietary antennas and switching system configurable to most displays, fixtures and lockers. Once collected, the contents of all the tags found are transmitted via the cellular network to the **Seeniq** server on the Internet where they are stored for further review and analysis. At any point in time, an authorized user with a web browser can see from dashboards provided by Seeonic, the location, serial number and product attributes of all of the scanned items. A complete inventory of all items is therefore known within the periodicity of the scanning of each **SightWare** module, a dynamic parameter set by the user in the **Seeniq** application.

The **Seeniq** dashboard provides a picture of the current inventory and the inventory over time. The user can also use predictive analytics to model customer demand and use predictions from the models to minimize stock-outs in the future. Since the inventory of all of the stores where the Seeonic technology is installed is displayed on the dashboards, the user can also see if supply can be satisfied by another store when a particular SKU is unavailable in the store inventory being viewed.

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Seeonic Architecture

Below is a diagram of the Seeonic architecture. The **SightWare** module on the left is either battery or wall powered and is installed in the display or fixture where the inventory is located. When it activates itself on the periodicity set, **SightWare** does a complete inventory scan and sends the resultant SKUs and counts to **Seeniq** via the cellular network. The **Seeniq** application creates the dashboards, looks for pre-defined alerts and issues any that are appropriate electronically. The **Seeniq** application is also tool for analyzing the data collected and developing demand models and predictions for future demand. Lastly, Seeniq can forward its collected data to our customers' business systems for further analysis.

