# RETAIL INSIGHTS TO DRIVE REVENUE

Harman Smart Retail Solution leverages the power of the Internet of Things (IoT) to enable retailers monetize key customer insights. The solution relies on non-intrusive IoT sensors for in-depth analytics on shopper behavior and traffic patterns. With the data driven solution, retail executives can gather deeper insights into buyer engagement, efficacy of store displays, optimal floor navigation paths, and store "hot" zones ripe for personalized offers.
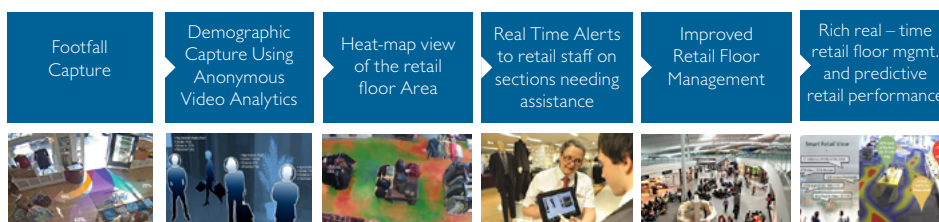
HARMAN Smart Retail solution also integrates with VMware® IoT solution to provide a state-of-the-art, robust and secure retail IoT platform. By relying on the VMware platform, you can easily integrate the HARMAN Retail solution with the rest of your store IT infrastructure.

## Deepening data insights across sources for increasing retail sales

OPTIMAL CUSTOMER EXPERIENCE THROUGH REAL-TIME CONVERGENCE OF SENSORS, ANALYTICS & MOBILITY

**2 Engage**

Real-time personalized communication with the shopper.

**SENSORS**
Grid EYE IR based Occupancy , I Beacons, NFC Tags, QR Codes, In-Store Video Cameras and Thermal sensors, Intel AIM Suite, STC IoT GW

**MOBILITY**
Retailer App m-commerce

**1 Know**

Understand shopper behavior in-store and online to create customer 360 view



**3 Sell**

Send Personalized mobile coupon specific to the products in the aisle. Promotions or Offers on shopper's smartphone to attract the shopper to the store.

**4 Service**

Track in-store shopper movement (Shopper Traffic, Dwell Time, Shopping Sequence).

Based on in-store analytics and revenue patterns, the solution generates a custom visual dashboard for easy review of specific retail parameters of interest to the planning team. A visual representation of daily stats in a dashboard enables teams to readily assess and optimize decisions on parameters such as shelf inventory, cooler stock, and store energy costs.

| Footfall Capture | Demographic Capture Using Anonymous Video Analytics | Heat-map view of the retail floor Area | Real Time Alerts to retail staff on sections needing assistance | Improved Retail Floor Management | Rich real – time retail floor mgmt. and predictive retail performance |



## Why HARMAN?

### Shortening Time-to-Market
Shorten your time from concept to delivery using our best practices, turn-key delivery models and rich talent pool.

### Cross-platform
Take advantage of our experience in multiple industry verticals and leading platforms to rapidly exploit new market opportunities.

### Global delivery footprint
Our skilled, talented engineers deliver solutions to companies like yours from centers throughout the world.

### Solution accelerators
Get access to leading edge innovation and best practice by using our solution accelerators and global pool of partnerships.

## www.harman.com

## Features and Benefits

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|---|---|
| Footfall Capture | The smart retail stores are equipped with directional sensors to count the flow of people at entry and exit points, while grid eye based sensors provide time stamp data and traffic direction. |
| Demographic capture using anonymous video analytics | The anonymous video analytics engine powered by Intel AIM runs on the edge device of Smart retail and offers real–time insights on demographic and behavioral patterns such as gender and viewing duration on visitors from the retail floor |
| Heat-map view of the retail floor area | The non-intrusive thermal infrared (IR) based occupancy detection algorithms deliver the occupancy trend at various section of retail floor, highlighting traffic flow and footfall trend over hours, days, or weeks on various parts of the store |
| Real time alerts to retail staff on sections needing assistance | Retail admin receives email or mobile alerts from the IoT system when dwell time in a particular area exceeds rules set by the retail outlet allowing immediate dispatch of support to the area |
| Improved retail floor management | A converged IoT based smart retail solution offers end-to-end retail floor management with actionable insights. |
| Rich real –time retail floor management. and predictive retail performance | HARMAN Smart Retail Solution integrates with Azure and Amazon Cloud Services. Ex. Using Azure IOT Suite, display insights from all data collected using real-time dashboards that show trends and analysis that would help store managers make critical decisions that impact revenue. |

## Successful Deployments

Harman IoT professional services team specialize in creating customized IoT services for retail outlet(s); deploying the services- and managing those as a turnkey operation – all the while ensuring a positive return on investment through the life of the project for the organization. HARMAN expertise reduces costly delays and provides decision-makers with a one-stop solution through the entire engagement.

## Partner with an industry expert

HARMAN Connected Services, a leader in software design and development, helps global brands dramatically reduce time-to-market while improving quality and productivity. Our end-to-end software engineering, IoT and data analytics services enable the world's top automotive, mobile and communications and software-enabled businesses drive innovation-led growth. Via our over-the-air (OTA) software update, virtualization and device management solutions we keep billions of mobile, automotive and IoT devices of all sizes and complexity continuously and reliably relevant and secure. The mobile devices and intelligent systems that we power are connected, integrated and protected across all platforms and reach every corner of today's digital world. HARMAN Connected Services is a division of HARMAN (NYSE:HAR), the leading global infotainment, audio and software services company.

Visit our website at **http://services.harman.com/Capabilities/internet-of-things**

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