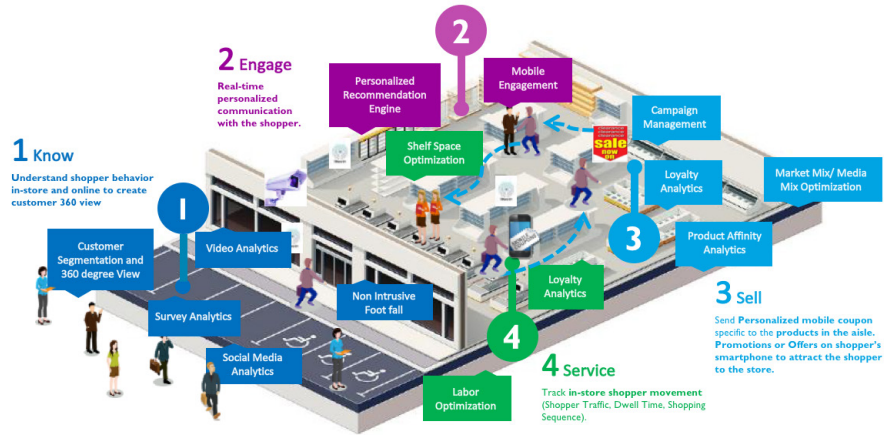


SMART RETAIL SOLUTION: CONVERT CUSTOMER INSIGHTS INTO DOLLARS

FEATURES AND BENEFITS

- Manage and monitor your retail IoT network**
 VMware offers an end-to-end, single-console solution that enables you to onboard, manage, monitor and secure all the sensors in your store and the gateways connecting them to your network. You will be able to check their operational health and respond in real time, and download software updates and application as and when required.
- Harmonize the management of all your sensors**
 VMware's Little IoT Agent (Liota) runs on IoT gateways/edge systems and enables complete lifecycle management of the wide range of different sensors used in a typical retail environment. It allows you to optimize the flow of data from your connected devices into the cloud or wherever you need it for analysis.
- Streamline the processing and analysis of your IoT data**
 VMware offers an on- prem pop up data center solution preconfigured and built for IoT use cases, including Harman Smart Retail, and to sit at the edge, in a retail store. It will also help you easily scale as usage grows. It enables you to optimize your use of Harman Smart Retail analytics tools, balancing processing and analysis between premises and the cloud provider of your choice and achieve the value from IoT faster..
- Footfall Capture**
 The HARMAN Smart Retail shop will be equipped with directional sensors to count the flow of people at entry and exit points and with Grid Eye based sensors to provide time stamp data showing traffic direction flow from point of entry.



Harman Smart Retail solution leverages the power of IoT to enable retailers to monetize key customer insights, understand in-store shopper behavior, determine the efficacy of store displays, optimize floor navigation paths, and monetize hot zones with personalized coupons and much more!

We have combined this with VMware's IoT Solutions to provide the industry's most powerful and secure retail IoT platform. You can easily integrate the combined solution with the rest of your IT infrastructure, and harness the power of VMware.

Harman's Smart Retail solution provides in-depth analytics on shopper behavior using non-intrusive IoT sensors. In addition, it enables you to optimize shelf inventory, manage cooler stock and reduce store energy costs. Using a customized dashboard your team can drill down to review specific parameters and optimize them for optimal results. And with VMware, you will have complete visibility and control of all things associated with your Smart Retail solution as well as any other IoT use cases in your organization.



- **Modernize Retail IT Operations & Security**
Customer checkout can be streamlined using mobile point of sale (mPoS) backed up by a secure digital platform that can protect customer data beyond the transaction.
- **Demographic Capture Using Anonymous Video Analytics**
The anonymous video analytics engine powered by Intel AIM runs on the edge device of HARMAN Smart Retail and captures real-time demographic data — age, gender and viewing duration — of visitors to the retail floor.
- **Heat Map View of the Retail Floor Area**
The retail store’s admin receives email alerts from the IoT system when occupancy rates they have set rise above a threshold and are able to immediately dispatch assistance to the area.
- **Improved Retail Floor Management**
A converged IoT based smart retail solution offers e2e retail floor management with actionable insights.
- **Rich Real-Time Retail Floor Management And Predictive Retail Performance**
HARMAN Smart Retail integrates with Azure and Amazon cloud services. For example, Azure IoT Suite can be used to display, via real-time dashboards, insights and trends from analysis of all data collected and help store managers make decisions critical to optimizing revenue..

Harman IoT professional services team will architect a customized solution for your retail outlet(s) and deploy and manage the service on a turnkey basis. This eliminates costly delays and provides you with a one-stop solution for your customer engagement and retail inventory needs.

Partner With An Industry Expert

VMware provides an end-to-end IoT infrastructure system with two major solutions that enable you to establish an IoT implementation, scale as needed and manage, monitor and secure it to ensure enterprises can deploy IoT in a cost effective and streamlined way. The first solution, an IoT control center will help you on-board edge systems such as gateways along with their connected devices such as sensors, collect telemetry data to monitor the health of the system, detect problems in real-time and provide software updates over the air. The second solutions offers you a way to drastically speed up the time to deploy a proof of concept on premise, next to the edge and scale easily from proof of concept to full-scale rollout. It comprises on premises data center software preconfigured and built for IoT use cases. You can balance your on-premises and cloud needs with your cloud provider of choice, with a high level of security.

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 to 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.

LEARN MORE

- <http://www.vmware.com/solutions/iot>
- <http://www.services.harman.com/iot>

About VMware

VMware is a global leader in cloud infrastructure and business mobility. We help businesses accelerate their digital transformation and operate successfully from things to the data center to the cloud. To meet the growing demand for IoT solutions we’re leveraging our core expertise in device management, operational analytics, hyper converged technology, security and cloud management with a range of strategic IoT partnerships. These will deliver one-stop, single-point solutions covering things, edge and platforms that will help businesses realize the full potential of IoT.

