The Retailers’ Guide to Creating PERSONALIZED SHOPPING EXPERIENCES

Experiences to love. Innovations to amaze.
Dear Retailer,

In our always-connected digital world, your ability to deliver personalized, immersive shopping experiences is key to earning customer loyalty. Enabled and empowered by technology, today’s consumers seek out ever-richer and more captivating shopping engagements, rewarding retailers and brands that provide those experiences with their loyalty.

The personalized, immersive shopping experience is one where customers can explore, dream and connect with the retailers and brands they love. Intel-based retail solutions can help you address heightened customer expectations for the shopping experience, which include:

- Understand my preferences
- Provide mobile deals
- Give me a reason to shop in-store
- Let me shop the way I want
- Make a personal connection

A comprehensive marketing strategy utilizing Intel-based retail solutions can enable you to engage with shoppers on every kind of device and across every channel they visit, including smartphones, social media, Web content, in-store displays, POS systems, and so forth. Big data analytics can help you track customers’ responses to media campaigns and promotions, providing insight that helps you make even better connections with your customers.

Intel-based retail solutions help you put your best brand forward and deliver the seamless, customized engagements customers seek. In-store, online and on mobile, Intel is inspiring experiences to love and innovations to amaze.

Intel and members of the Intel® Retail Solution Provider Network provide a wide variety of solutions that will attract your customers’ attention in new ways. This solutions guide provides a quick overview of these offerings in the context of these personalized, immersive shopping experiences.

Please contact your Intel sales representative to learn more about the solutions presented in this solutions guide.

Sincerely,

Intel and the Intel Retail Solution Provider Network
This guide presents retail solutions for in-store experiences that help build customer loyalty across the entire shopping journey, presented here in five stages. Although the stages are depicted linearly, customers actually move in and out of different stages before they ultimately make a purchase. Sometimes they'll go straight to the transact stage for certain items that are typically bought out of habit. Core to the experiences are the infrastructure, and ways to reduce OpEx are also presented.
DISCOVER
Increase brand awareness

Learn about individual customer preferences in order to present more relevant information in a timely and personalized way – informing customers about products that truly matter to them.

Retailer Benefits:
· Offer the right product mix
· Reach customers at the point of decision
· Reduce inventory distortion
· Raise brand awareness

Directed Advertisements: When customers enter your store, a wayfinder or digital sign can get their attention and motivate them to buy a product. Better yet, show the person standing in front of the sign a directed advertisement based on their gender and age range, which is determined anonymously and while respecting viewer privacy. At the same time, access quantitative data such as impression counts, viewer demographics, and dwell times that indicate the effectiveness of promotions. The solution can be applied to digital signs in a wide variety of applications, including vending machines, electronic shelf labels, and signage walls. The solution can also engage the senses – smell, sound, and touch – as demonstrated in a coffee station deployment, which helps Costa Coffee* strengthen pricing power, offer customers the right product mix, increase sales per transaction, and improve operating margins. (read more)

Dynamic Merchandising: For businesses that carry perishable items, price cuts, promotions, and other selling techniques can prevent a potential three percent loss to the bottom line.¹ This solution applies real-time monitoring of item-level sell-through rates for individual perishable items in order to calculate how much inventory is needed for a given store each day and make dynamic price adjustments that eliminate overstocks and rebalance supply to demand. In the case of grocery stores, this technology can increase profit by as much as four percent when the loss on perishables is reduced by 25 percent. (read more)

INCREASE PROFIT BY 4% WHEN LOSS OF PERISHABLES IS REDUCED BY 25%
Intelligent Digital Shelving: As customers pass through store aisles, grab their attention using intelligent digital shelving (i.e., digital screens) that play eye-catching, high-definition video and animation about products and in-store specials. Brand and price promotion messaging on a digital signage network can generally produce a sales lift of eight to ten percent, as well as impact category sales, according to Platt Retail Institute*. This advertising content can also generate incremental revenue from product manufacturers, who will be able to connect with consumers when buying decisions are made. An ad placement rate of $200 to $300 per month may be reasonable based on a study conducted by Platt Retail Institute. The screens can help increase the success of new product launches by making sure consumers take notice of specific shelf locations as they stroll down the aisle. Moreover, it eliminates the need for employees to print and attach price labels on the shelves, thereby reducing operating costs and increasing the accuracy of shelf prices. (read more)

Digital Signage Network: Every week, around 15 million shoppers enter stores operated by Media-Saturn Group*, Europe’s largest electronics retailer, and see an incredible number of screens (225 on average) playing a combination of videos, images, and templates broadcast over an in-store TV network. This investment enables Media-Saturn to elevate the shopping experience, generate additional revenue, eliminate the cost of traditional signs, and optimize customer communications. (read more)

CASE STUDY: Intelligent Digital Shelving Grabs Customers’ Attention

Metro Group*, the world’s fourth-largest retailer, used Intel technology to develop powerful video-enabled intelligent digital shelving on aisle displays to direct shoppers’ attention to specific products and promotions.

- Raised consumer awareness of new dairy products
- Ran special offers on nearly-expired products

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BROWSE
Showcase your product offerings

Draw attention to products using catalysts, like mobile deals, phone apps, or special programs, when customers are perusing store shelves – encouraging them to consider a wider range of products.

Retailer Benefits:
· Increase retention of existing customers
· Get customers to try new products
· Use technology to keep customers coming back
· Offer customers something they truly want

Customized Mobile Deals: Going mobile can set a retailer apart, and help keep customers engaged and devoted. To move in this direction, retailers can deploy self-service offer centers that allow customers to receive deals on their mobile phones and then redeem them wirelessly at the point-of-sale (POS) terminal. Based on an interactive digital sign with anonymous viewer analytics (AVA), the station measures and analyzes customer responses to advertising, enabling it to send offers for things customers really want. (read more)

Product Introduction Station: The track record for new product introductions is dismal, with somewhere between 80 and 95 percent of them failing, according to Accupoll research. Enabling retailers to better educate customers about new products, product instruction stations step through product features and benefits, and provide quick answers to complex questions. They bring the convenience of online retail inside the store while learning which models have the greatest appeal to consumers, information that can be used to better control inventory levels and make product forecasts. (read more)

CONTEXT-AWARE ADS
INCREASED MONTHLY SALES BY AN AVERAGE OF 16%
Personalized Product Information: Everyone carries around a lot of data on their cell phones, from the locations they visited to what they like best, as expressed with social media. Data about personal likes and buying habits is valuable when directing advertising and other information to individual consumers, made possible with the intelligent mobile advertising solution. The solution selects which ads to show individual customers after coalescing data from their mobile phones, web browsing, and social media interactions, thereby dramatically improving the relevancy of advertisements. Consumers can get information tailored to their personal likes and current interests, allowing them to shop more efficiently and even learn about offers they might otherwise miss. Retailers can create a more informative and productive shopping experience in a way that attracts more traffic to their physical stores and company web sites. In trial tests conducted by Intel at 10 different retailers, context-aware ads increased monthly sales by an average of 16 percent across 15 diverse product types. (read more)

Multi-Sense Experiences: Brand engagement begins with telling a story to customers, which can be done by presenting entertaining and educational content on a touch-enabled digital sign. For instance, McCormick* and Co., known for its herbs and spices, entices customers to learn about the company in five different ways: “guess that spice” after smelling it; discover one’s unique flavor profile; play a fun game; see how flavors are made; and watch a cooking demo. The digital destination solution analyzes the responses, generating data and statistics that are used to learn what the next generation of customers wants. According to McCormick, more than 70 percent of customers entering the World of Flavors store have interacted with at least one digital destination, with half discovering their ‘FlavorPrint’ and a third playing ‘Guess that Spice.’ (read more)

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Adidas* employed an Intel technology-based interactive video wall to launch a line of specialty Olympic sports shoes, the majority of which were not physically carried in stores due to inventory risk. With the wall now installed in various locations, it has driven increases in footwear sales of more than 40 percent in every instance so far, according to Adidas.3

- Enabled customers to view images of the shoes, learn their features, select sizes and colors, check inventory, and purchase the shoes, all at the digital display.
- Achieved a clear impact on unit sales and average selling price, especially since customers were willing to spend more after going through the experience.
- Added a point of interaction for the associate to help involve the customer by explaining how the wall works and pointing out the cool features, like 3D rendering and social interaction.
- Allowed Adidas to offer customers their full inventory of thousands of shoes using the video wall, while carrying far fewer shoes in-store.

CASE STUDY: Interactive Video Wall Sells Non-Stocked Items

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INVESTIGATE
Facilitate purchase decision making

Give customers a reason to shop in-store by surpassing the online experience with more relevant product information, interactive self-service stations, and expert insights from sales associates – delivering an immersive brand experience.

Retailer Benefits:
- Provide customers an expanded portfolio of products
- Build trust and credibility with customers
- Get a better understanding of customer buying patterns
- Deliver an exceptional online experience

Interactive Visual Displays: Large-scale discount and warehouse retailers provide consumers with an extremely wide choice of products – too numerous to have on the showroom floor. Overcoming this limitation, large-format, interactive visual displays are the next best thing to having an item in front of you. They bring products to life with full-size images on multiple interactive high-definition displays, allowing you to look inside an appliance, like a refrigerator. Customers see the store’s entire product portfolio, enabling them to make informed product comparisons. (read more)

Consultative Sales Assistants: Empowered by “always-on” Internet connections and informed by the opinions of others, many consumers believe they are more knowledgeable than sales associates and would rather be left alone. To solve this challenge, retailers equip sales assistants with mobile computers loaded with helpful, up-to-date product information, an ideal tool for consultative selling. This digital experience can help a sales associate build and sustain 1:1 relationships with customers seeking a more in-depth product discussion. (read more)
Data Mining: The value of big data is the ability to unlock insights into what drives customer behavior and buying habits. To stay ahead of the curve, retailers need a platform that runs advanced data analytics on a mix of data types, thereby allowing retailers to gain greater understanding of customer preferences and influencers. Moving forward, big data will drive higher revenue and create a competitive advantage for retailers who successfully turn this information into personalized shopping experiences. Built with Intel® Xeon® processors, the servers used to run Apache Hadoop* data mining software were at least three times faster than the featured company’s previous solution. (read more)

Faultless Customer Service: Brick-and-mortar retailers are merging their physical and virtual channels to deliver a better, holistic shopping experience. In some cases, this necessitates paying special attention to their online presence and making sure their web site performance meets customer expectations. Make sure your web site is running on a scalable platform that allows you to take on more customers without compromising service quality or uptime. After a move to the Intel® Xeon® processor E7 product family, the website for an online multi-brand fashion and design store went from 75 to 80 percent CPU utilization during the 1:00 to 5:00 p.m. peak period to well below 20 percent utilization. Now there is ample performance headroom to handle increased demand. (read more)

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CPU UTILIZATION DROPPED FROM 80% TO 20% AFTER MIGRATING SERVERS TO INTEL® XEON™ PROCESSOR E7

CASE STUDY: Interactive Media Wall Brings Products to Life

Recently, Intel and Mall of America* unveiled a digital media wall known as the Intel® Ultrabook™ experience station. This twelve-screen, high-definition display (configured in a 3 x 4 screen grid) delivers a four-way interactive experience: four rows with varying content.

- Attracts consumers’ attention
- Engages customers with hands-on exploration
- Encourages purchases
- Reinforces the Intel brand

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Multi-channel Retailing: Customers expect a seamless and consistent shopping experience even when they cross channels, as in buying an item online and picking it up at a physical store, or buying an item online and then returning it to a physical store. For them, it’s just one retail brand; although behind the scenes it may be a different story, especially when each channel has a unique set of business processes and infrastructure. This situation can be remedied with a solution that tightly couples inventory visibility for brick-and-mortar stores and corporate web sites. It conducts sales transactions across channels in a way that ensures prices, promotions, and inventory views are the same regardless of the shopping mode. In the case of ‘buy online, return to a store,’ a large retailer said that about 50 percent of the time, customers will purchase another item during their visit. Likewise, around 25 percent of customers will buy an additional item while picking up merchandise from a store. (read more)

Retailer Benefits:
- Make corporate-wide inventory available to any store location
- Increase sales by offering more fulfillment options
- Deliver faster and more convenient checkout
- Reduce effort when deploying mobile devices in stores

Mobile POS: Customers in a hurry appreciate the convenience of mobile checkout because it gets them on their way faster. Before going down this road, retailers should carefully select a mobile computing device that won’t ultimately cause a lot of headaches. Learn how to avoid a dozen major issues, like PCI compliance, wireless coverage, and software incompatibility, when implementing mobile POS. (read more)

25% of shoppers will purchase a second item at pickup.

CASE STUDY: Rite Aid*: Matching Customers and Products

The third largest drugstore chain in the U.S. was looking for more effective ways of matching products with customers when it developed the idea of the 3D Rewards Center: a 3D holographic digital signage display/kiosk that performs anonymous video analytics to determine the age and gender of customers standing in front of it. As a result, the system can play content and advertising suitable for the audience (there’s no point in telling a teenager about a promotion for reading glasses.)

- Dispenses coupons, promotions, and sweepstakes
- Serves as an Internet portal
- Administers customer loyalty programs
- Supports cross-selling opportunities

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INVENTORY

ORDER
EXTEND
Strengthen relationships with customers

Show customers you care by making personal connections, like sending an email or SMS wishing them a happy birthday, congratulating on an anniversary, or gifting a beverage – making them feel special.

Retailer Benefits:
· Increase social media presence at minimal cost
· Maintain ongoing communications with customers
· Generate online and offline repeat business
· Show customers they are appreciated

Social Media Display: Venue owners and advertisers know they need a presence on social media in order to increase customer interaction, but it’s often costly and difficult to implement. An affordable alternative is an intelligent social display that attracts and entertains customers in a way that leads to branded photo postings on social media sites, like Facebook*. As customers walk up to the display, they see themselves on a high-definition screen, and after choosing a fun theme, take a picture that is automatically screened for objectionable content, sent to the cloud, and posted online without requiring any venue input. Afterwards, they can interact with the photos through social media on their tablets, phones, and desktop devices, again without assistance from the venue. Now, some businesses have hundreds of thousands of photos of smiling customers supporting their brand and location – photos that were created and posted in a low-touch and cost-effective manner. (read more)

Customer Appreciation: A nice way to say thanks to customers for their loyalty is to give them a token of your appreciation, like a beverage, which can be dispensed by a vending machine that supports gifting. The latest intelligent vending machines have large HD displays for playing commercials, store information, and other content (e.g., nutritional information) in the customer’s direct line of sight. (read more)

CASE STUDY: Extending the Brand

Cable shopping networks have become a major force in e-commerce. So it was not really a surprise when one of the largest cable shopping channels in the U.S. took the plunge into digital signage with an interactive touch wall that gives people in malls, sporting arenas, airports, and other public venues an opportunity to take a cooking class from world-renowned chef.

· Sends a shopping list of featured products to participants’ mobile phones
· Provides individualized instruction to each guest chef via directional audio
· Lets guests visualize how they would use the products in their everyday lives
· Enables the shopping channel to reach new customers in a meaningful way that leaves a lasting impression

(read more)
Device Management: For those brick-and-mortar retailers looking to create a multichannel shopping experience, the major challenge is supporting a wide range of devices, including POS terminals, self-service stations, digital signage, smart phones, tablets, etc. Reduce the cost and complexity of supporting these devices with Intel’s device management solution that enables retailers to manage devices across multiple stores, countries, and geographies from a centralized location (e.g., headquarters). The savings can be significant, as demonstrated by a major bank that achieved an ROI of 524 percent in just six years, after deploying ATM machines with Intel® vPro™ Technology with support for improved patching, OS reimaging, and remote problem resolution. (read more)

Shelf Compliance: Planograms and promotional display models show where products should be placed for maximum sales; however, verifying that products on shelves match planograms is a very time-consuming process, and thus, is not performed frequently. Taking humans out of the process, automated shelf compliance solutions use the latest digital image recognition technology to ensure product placement on store shelves complies with planogram models. At the same time, retailers can increase revenue by reducing lost sales due to out-of-stock items. (read more)

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Anonymous Viewer Analytics (AVA): For most businesses, success depends upon knowing customers and providing what they want. Intel® Audience Impression Metric Suite (Intel® AIM Suite) adds powerful data collection and audience measurement tools to a digital signage network. With valuable metrics that were previously unavailable, retailers and product manufacturers can measure advertising effectiveness through a better understanding of audience characteristics such as actual impressions, length of impressions, potential audience size, and customer demographic data (e.g., age-range and gender). Animated digital content attracts many more viewers than equivalent static posters – four to six times more viewers, according to a study conducted at the Venetian Hotel in Las Vegas.\(^5\) (read more)

Retail Analytics: Big data analytics now makes it easier to track customers’ responses to media campaigns and promotions, giving insight into how to better target their media spend, create more profitable promotions, and personalize their digital marketing efforts for the consumer. Working with retailers and brands across the industry, Intel conducted a series of studies on large datasets from the Natural Food industry. The objective was to understand and measure the value that retail-centric, big data analytics could provide by solving business issues around product receptivity, optimum store product mix, and campaign effectiveness. (read more)

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CASE STUDY: A Major Beverage Distributor Manages Digital Signage over Wireless Networks

Walk into a typical store in Israel and you may find a display of soft drinks beneath digital signage playing a relevant clip promoting the special of the week. What’s unique is the wireless-enabled digital signage can be located anywhere around the store, without concern about physical LAN connections. In addition, the systems are managed and fixed remotely using Intel® Active Management Technology (Intel® AMT),\(^6\) which can minimize costly onsite repair visits.

- Avoids the cost of dropping a wired LAN connection
- Allows digital signage to be placed where it will be most effective
- Eliminates unsightly cables hanging from the ceiling
- Simplifies installation: no cables and connectors requiring approval, ordering, and installation
Selected Intel Offerings

Delivering the personalized customer experiences described throughout this guide requires solutions that are connected, managed, and secured. In our always-connected world, retail devices are expected to maintain reliable network connections, be highly available, and protect customer data. To that end, Intel is integrating a large set of platform ingredients in the areas of connectivity, manageability, and security to provide higher-value platforms for in-store devices to storage, servers, and networking to equipment manufacturers, systems integrators, and, ultimately retailers.

In today’s ultra competitive retail landscape, delivering valuable customer experiences is everything. That’s why digital signage has evolved into such a powerful consumer touch point. Now, the Intel® Retail Client Manager (Intel® RCM) enables retailers to deliver digital content to every screen with greater impact, when and where it matters most. Remotely manage marketing campaigns and play directed content on the fly, quickly and easily.

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Reach the Right Audience with the Right Message at the Right Time

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Platform Components

- Intel® Processors and Chipsets
  - Intel® Xeon® processors
  - Intel® Core™ vPro® processors
  - Intel® Atom™ processors
- Intel® Network Adapters
- Intel® Solid-State Drives
- Form Factors
  - Intel® NUC
  - Open Pluggable Specification (OPS)

Platform Technologies

- Intel® Active Management Technology (Intel® AMT)
- Intel® Identity Protection Technology (Intel® IPT)
- Intel® Platform Trust Technology (Intel® PTT)
- Intel® Virtualization Technology (Intel® VT)
- Intel® OS Guard

General Software

- McAfee* Security Software
- Wind River* Intelligent Device Platform
- Intel® Distribution for Apache Hadoop*
- Intel® Expressway API Manager
- Intel Expressway Tokenization Broker

Retail Software Solutions

- Intel® Retail Client Manager (Intel® RCM)
- Intel® Audience Impression Metrics Suite (Intel® AIM Suite)
- Intel® Perceptual Computing SDK
- Intel® Media SDK

More information on each of these offerings is available in the linked Solution Blueprints and at intel.com/retailsolutions.
Empowering a New World of Retail Innovation: The retail industry is in the midst of a dramatic information revolution that is laying the groundwork for new consumer experiences, enhanced productivity, reduced inventory distortion, and brand optimization. The solutions presented in this guide help simplify the deployment of intelligent systems and enable retail OEMs to shift their investments from achieving interoperability to unlocking the value of data. Intel® architecture-based solutions feature fundamental capabilities delivered by components that address connectivity, manageability, and security, including software and middleware from Wind River® and McAfee®.

What can emerging intelligent retail systems do? Imagine an intelligent store where incoming weather data indicates a severe storm approaching. The store’s digital signs and kiosks immediately begin promoting items commonly purchased during storms, like umbrellas, and prices are adjusted to reflect the predicted increase in demand. Price updates are transmitted to electronic shelf labels and the back office. Data from checkout confirms umbrella sales are increasing, causing immediate alerts to the stockroom. The store’s warehouses and key suppliers send shipments to replenish the shelves.


4 The Shinhan Bank® 2009 deployment of ATMs with Embedded Intel® Core™ 2 processor with vPro™ technology, conducted in 2009, at the bank’s distributed sites in South Korea.


Intel® Active Management Technology (Intel® AMT) requires the platform to have an Intel AMT-enabled chipset, network hardware and software, as well as connection with a power source and a corporate network connection. With regards to notebooks, Intel AMT may not be available or certain capabilities may be limited over a host OS-based VPN or when connecting wirelessly, on battery power, sleeping, hibernating or powered off. For more information, see http://www.intel.com/p/en_US/embedded/hwsw/technology/amt.

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INTEL® vPro™ Technology is sophisticated and requires setup and activation. Availability of features and results will depend upon the setup and configuration of your hardware, software and IT environment. To learn more visit: http://www.intel.com/technology/vpro.

Iris™ graphics is available on select systems. Consult your system manufacturer.

Intel Retail Solutions Partner Network: Redefining what’s possible, leading solution providers have come together to address the specific needs of retailers, whether it’s consulting, content creation and management, retail systems, hardware customization, deployment support, network management, or cloud-based services.

The Intel® Retail Solutions Partner Network provides one-stop shopping for cutting-edge, Intel architecture-based products and services that deliver new consumer experiences, enhanced productivity, reduced inventory distortion, brand optimization, and more. To learn more, visit Intel.com/rspn.

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