In the aisle, at the checkout and back in the warehouse, Intel®-based technology solutions are providing today’s retailers with new ways to deliver better customer experiences while keeping costs under control.

Big changes are sweeping through the retail industry—at stores large and small, in clothing, food and home appliances, at big-box emporiums and specialty boutiques—none are immune.

Once the only retail “channel,” the traditional bricks-and-mortar store remains the primary way most goods are sold.

But shoppers have made it clear they want a different in-store experience: more information, more personalization and more convenience. Whether they are in-store, online or on their mobile—possibly all at the same time—they want all the channels working together.

Retailers are responding, using a wide array of Intel®-based intelligent devices to transform their stores into connected, information-rich environments:

- Mobile to help customers, check inventory and transact sales
- Traditional POS with analytics built in
- Digital signs promoting high-margin products
- Interactive kiosks for browsing virtual product selections
- RFID tags for managing inventory and triggering product suggestions
- Digital security and surveillance with real-time analytics to provide up-to-the-minute information on customer behavior and purchase patterns
- Network-attached storage (NAS) solutions for business continuity and disaster recovery

Intel®-based solutions deliver the intelligence needed to break through without breaking budgets, creating the kinds of richer, more personalized experiences that drive customer loyalty and translate into profits that retailers of today are looking for.

Studies have found that stores that put digital signs near the checkout have seen sales increases of as much as 33 percent.¹
The Connected Store in Action
Today’s shoppers are better informed and have higher expectations. Shoppers are used to the in-depth information available online, and the convenience of communicating and connecting on smart phones, tablets and social networks.

Creating this kind of seamless, information-rich experience on the sales floor is what the connected store is all about: taking full advantage of the new generation of intelligent in-store devices—mobile POS, digital signs, kiosks, digital security and more; gathering and processing information and responding in real time to ever changing conditions; making sure every engagement is consistently on-brand.

• Shoppers enter a store and employees may know what they want to buy based on information on the customers’ phones or tablets.

• Shoppers take advantage of interactive kiosks, tablet-equipped sales associates or their smart phones, simply waved over a product, to get product and pricing information.

• Items browsed online are placed in the dressing room where a magic mirror uses RFID technology to trigger videos about the products, including displays of related options.

• As traffic moves through a store—varying by time of day, day of week, season or weather—digital signs in the store instantly get updated to promote relevant items.

• Connecting POS systems and electronic shelf labels ensure consistent pricing across channels.

• Store managers use video analytics to study shopper behavior and see how Web promotions relate to sales and the most effective way to optimize the store’s layout.

• Cameras at the checkout area are connected to the POS systems to help automate checkout while reducing staffing and supporting loss prevention.

Building the Connected Store
The mainstays of retail technology—point of sale systems, signs, kiosks, shelf labels, vending machines—are all evolving from being single-function and disconnected to being multi-purpose and connected.

POS Systems
POS systems are a critical “touchpoint” for today’s retailers—a location where the opportunity exists not simply to complete a transaction, but also to enhance the customer relationship and streamline the business. POS systems today can play a role in marketing, pricing and inventory control. Sales associates can use these devices anywhere in the store to answer questions, provide information and process a sale. Touch screen capabilities and enhanced software interfaces designed for specific markets all add to the functionality.

Digital Signs
In many retail environments, digital signs—flat panel displays that can be used to convey a wide range of information—have all but replaced traditional printed posters and menus. The ease of updating content, the ability to show HD graphics and video and the growing opportunities to add different forms of interactivity have all made for a compelling value.

Making use of digital signs can help drive more sales of products and services. By linking the content on signs to internal systems such as inventory or pricing, they can be used to address issues such as inventory overstocks or products that are reaching their expiration date and need to be moved quickly. The ability to rapidly change content makes it possible to respond to conditions in real time—such as promoting weather-related items when a storm is coming.
Kiosks
Kiosks that take advantage of touch screens (and/or non-touch, gesture controls) create opportunities to provide shoppers with customized information, play games, gather input and more. Customers can scan a code from the sign using their smart phone, have information sent to their social media account, update their status in a loyalty program—there is a wide array of options.

Managing Content
POS systems, signs, kiosks and other touchpoints all offer opportunities for engaging customers with targeted marketing messages and other content. Intel® Retail Client Manager (Intel® RCM) is the intelligent software solution for managing content across consumer digital touchpoints. Store managers can schedule and launch strategic and relevant marketing campaigns for targeted audiences, when they need it most, in real time, from anywhere.

Measuring Performance
Intel® Audience Impression Metric Suite (Intel® AIM Suite) software, built into Intel® Retail Client Manager, will aggregate anonymous data capture via sensors, categorize each capture and keep score on how many people looked at content on digital signs, how long they watched, and their demographics (e.g., gender and age range). The data is completely anonymous. No image is captured and no identifying data on any individual is stored.

Digital Security
Today's new digital capabilities are transforming video surveillance, opening the door to smarter, more cost-effective and more versatile solutions, delivering powerful new tools against theft, vandalism and other malicious activities while also making it possible to extract valuable data that can be used for marketing and business performance optimization.

Storage
As the number of customer-facing digital touchpoints increase, so does the need to manage all the data used and generated at these touchpoints. When discussing retail deployment components such as POS, DS, DSS, CMS and analytics, do not overlook the importance of networking and storage solutions for ultimate operational efficiencies, security and redundancy.

For retailers with more than one location, as well as those who are capturing data such as customer loyalty information, purchase history, shopping preferences, rewards, etc.—storage becomes a critical part of the technology mix. Today's new generation of network-attached storage devices (NAS) provide an easy and cost-effective way to manage the onslaught of data retailers are facing today.
Intel® Platforms for Retail Innovation

Intel®-based solutions provide the intelligence, flexibility, manageability and security needed for today’s retail environment.

Performance: Intel’s primary competency in multi-processor, multi-core platforms delivers the computing horsepower needed for the most demanding retail technologies—interactive software, high-definition video/rich graphics, wireless networking and more. One of Intel’s newest processors, the Intel® Atom, is ideal for innovative, fanless designs for technologies such as handheld shopping devices.

Scalability: The scalability, upgradeability and flexibility of Intel’s architecture gives developers the options they need to quickly and cost-effectively develop new solutions for retailers. Forward and backward compatibility through the three decades of Intel® architecture assures both users and developers that their investments are protected.

Manageability: With potentially tens of thousands of connected devices, retailers need ongoing maintenance and support to be simple and cost-effective. Intel has built capabilities into its chips that enable cost-effective, remote diagnosis and maintenance of hardware and software systems.

Security: Security is an issue for both online and offline retailers. The increased use of interactive devices invites cyber-attacks that threaten privacy and compliance with PCI and other regulations. Technologies such as Intel® Trusted Execution Technology integrates new security capabilities into the processor, chipset and other platform components.

A Framework for Retail

Intel® architecture provides a common solution framework for easily connecting, managing and securing devices, specifying key ingredients that can be flexibly combined.

In addition to identifying the key functionality, Intel is ensuring the compatibility of compliant solutions, certifying solutions from members of the Intel® Intelligent Systems Alliance.

Learn More

A new generation of technology solutions is available that retailers of all kinds can take advantage of to operate more efficiently and deliver better customer experiences.

Intel® technology is driving this transformation. Get more information on POS/mPOS systems, digital signage, security, content management, storage and more. You can also get updates on how the technology is evolving, examples of how stores are using them and steps you can take to put these solutions to work for you today. Go to intel.com/retailsolutions and see what today’s retailers and brands are doing.

For more information about Intel® Retail solutions, go to intel.com/retailsolutions.


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