Put the IoT to Work in Your Store

IoT adds a personal touch to retail that keeps customers coming back.

Your store still has time to be on the leading edge of retail IoT and to create an even more personalized shopping experience for your customers ahead of your competitors. Thanks to recent innovations from companies like Intel and Citrix, you can turn retail IoT solutions into reality sooner and more easily than you might think.
For years, people have speculated that online shopping could be a serious threat to brick-and-mortar stores. However, shopping trends are showing otherwise. According to a recent consumer spending survey conducted by the International Council of Shopping Centers (ICSC), 78 percent of consumers prefer to shop in stores rather than online.¹ Consumers say that they like to try out and touch merchandise before buying it.¹ On average, a consumer will shop at a brick-and-mortar store about 8 times per month, as opposed to only two times shopping online.¹

It appears that you’re winning the battle against online retailers. But don’t get too comfortable just yet. Something new is on the horizon, and this time the threat is different. It’s not in the form of direct competition; instead, it’s the threat of missing a huge opportunity—the chance to put the Internet of Things (IoT) to work in your store.

IoT for retail enables a world where connected things—such as retail devices, cameras, sensors, cloud services, and data—help you engage customers in a whole new way. With IoT, your customers’ experiences can be enhanced with tools that range from e-tags and ad panels that change for each customer to sensors that collect data to help with layout optimization. The possibilities for IoT in the retail space are almost endless, and the bottom line impact can be impressive. Some experts predict that IoT could have a total potential economic impact in the retail sector of up to $1.2 trillion per year by 2025.²

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Let’s take a look at some hypothetical scenarios using IoT solutions that are currently being developed and tested using Intel and Citrix technologies. These scenarios can help you imagine what IoT could look like in your store.

**Retail IoT in Action—What Your Store Could Look Like in the Near Future**

Simplify with Automated Management Processes

It’s 7:15 a.m., and Julie, the store manager, is just finishing off her coffee as she arrives to work for the day. She swipes her card to unlock the outside door, which signals the lights to turn on, the air conditioner to adjust for daytime temperatures, and the point-of-sale (POS) system to boot up for the day. She swaps her card to unlock the outside door, which signals the lights to turn on, the air conditioner to adjust for daytime temperatures, and the point-of-sale (POS) system to boot up for the day.

As Julie approaches the POS, it senses her presence and activates the 3-D camera and facial-recognition software. The POS scans her profile, and within seconds, her identity is verified, she is logged on for her shift, and her task list appears reminding her of her to-do list for today, which includes rearranging some of the desks in the furniture section of the store.

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Customize Store Layout And Product Placement Using Aisle Analytics

For several weeks, Julie has been using aisle-analytics software connected to infrared sensors to track the movement of customers throughout the store and to identify where they are spending the most time. This helps Julie to continually update the store layout and product placement based on the latest trends in customer interest.

Her recent analytics report shows that customers have been spending a lot of time looking at and trying out the standing desks. They are currently in the corner of the furniture section, making the area around them feel crowded. Julie decides to create a standing-desk module in the center of the furniture section, where customers have plenty of room to try out the adjustable features of the desks.

Streamline Employee Tasks With Integrated Systems

By 8:45 a.m., Julie is finished rearranging the furniture section of the store. The other employees begin showing up for the day, each of them following the simple facial-recognition logon procedure at the POS. Once the POS logs on the employees for each shift, it automatically keeps track of which employee handles each customer transaction and prints a thank you note on each customer receipt with the correct employee’s name. The POS also records employees’ hours in the payroll system and sends notifications to the employees’ phones reminding them of their scheduled breaks throughout the day.

At 9 a.m., the store’s doors automatically unlock and the IoT settings throughout the store go live—including all cameras, infrared sensors, beacons, personalized ads, music queues, E Ink Electronic Shelf Labels*, and overhead and shelf guidance lights. The store is open for the day.

Help Customers Find Items Faster With A Custom App And Coordinating Lights

Phillip is the first customer of the day. As he enters the store, the cameras detect his general profile, recognizing him as a male and probably in his fifties. The next song in the music queue changes to reflect this profile, selecting a song that would likely appeal to his demographic. The personalized ads on the electronic signs also cue up to advertise products tailored to this demographic, such as leather briefcases.
Phillip is there to pick up some toner for his printer, and he is in a rush to make it back to his office. Because he already knows exactly what he is looking for, Phillip opened the store’s app ahead of time to search for the toner cartridge that he needs. With the app still open, Phillip’s request is picked up by the POS when he enters the store, the toner is located, and the store’s customized light panels light up to show Phillip exactly where to go.

The app tells Phillip to look for the color orange. He sees an orange light blinking above the aisle he’s looking for. Once in the right aisle, the orange lights guide him along the coordinating shelf to the toner he needs. The app also suggests additional items that Phillip might need, such as printer paper or colored cartridges. Phillip decides to grab another ream of paper on his way out, and uses the app to find that quickly too.

In the case that other customers are in the store using the same app at the same time, the POS has at least 12 different colors that it can use to guide 12 simultaneous customers. This helps ensure that no two customers have the same color at the same time.

Personalize The Shopping Experience For Each Customer
Jeff enters the store next, accompanied by his two grade-school aged daughters. Again, the cameras pick up the profiles of each of the three customers. The next songs in the store’s music queue change to reflect music that Jeff, a male in his thirties, would likely enjoy. The store’s electronic ad panels change to ads of school supplies to better align to the children’s interests. Based on those customized ads, Jeff takes note that a certain brand of crayons is on sale that week, which allows him to take advantage of the sale.

Jeff and his daughters spend nearly 45 minutes in the store picking out school supplies. During that time, the store’s aisle-analytics program tracks their shopping patterns, which will provide Julie with helpful analytics later to let her know which items she might want to include in the back-to-school display that she’s putting together.

Reward Loyal Customers With Customized Offers And Conveniences
Jackie, a long-time, loyal customer, enters the store next. She visits the store at least once per month to pick up supplies for her law firm. She has the loyalty app on her phone and uses it frequently. The app keeps a running list of the supplies that she restocks each month and lets her easily designate a color for each item: red if it is out, yellow if it is running low, and green if it is completely stocked. When she arrives at the store, the app populates her shopping list with just the yellow and red items. In addition, she receives notifications throughout the month when any of the items on her supply list are on sale.
The POS immediately links with Jackie’s loyalty app when she enters the store. The app offers to help her locate items by using the customized light panels. As Jackie walks around the store, the E Ink Electronic Shelf Labels sync with her loyalty app and change to reflect loyalty discounts on certain items when she is within a 3–5 foot radius of the tags.

To make checkout go faster, Jackie has set up an automated checkout for her business account through the loyalty app. At the POS, the facial recognition software verifies her identity and charges her items to her business account. The POS emails her receipt to her work email for her records. It is there waiting in her inbox before she even reaches the office.

**Now Is the Time to Think About Retail IoT**

Retail IoT isn’t just a hypothetical or a future fantasy. Technology exists today that can help you put IoT to work in your store. Intel and Citrix have been collaborating and innovating to create solutions that are cost-effective and simple to implement and manage. Using these technologies, you can be a pioneer of retail IoT and create an even more inviting, convenient, and personalized shopping experience that will keep your customers coming back to your store again and again.

Learn more about Citrix and Intel IoT solutions at:

- [now.citrix.com/intel/octoblu](http://now.citrix.com/intel/octoblu)