

The background of the slide features a blurred image of a hand holding a smartphone. Overlaid on this image is a green-tinted grid of binary code (0s and 1s) that recedes into the distance, creating a sense of depth and digital connectivity.

# TECHNOLOGY SPURS SHOPPER-CENTRIC RETAIL

Consumer behavior; how, when and where people shop, is always changing. Good retailers know this and adapt to the change in the short term, while predicting where it will lead in the long term. Retailers are using technology to drive their “Shopper-centric” philosophy. They are deploying mobile devices and IoT endpoints across the entire supply chain to reduce prices, increase visibility and create a faster, seamless shopping experience in the store, online, and through any other channel.





## TECHNOLOGY REDUCES SALES FRICTION IN THE STORE

Most shoppers go into a store and want to leave with the right product at the right price in a quick and efficient manner. Technology such as digital signage, kiosks and tablet scanners help shoppers find what they are looking for, while mPOS and self-checkout terminals make payment quick and easy. When a shopper is looking for product information, reviews or availability, a [Connected Associate](#) will help them more effectively.

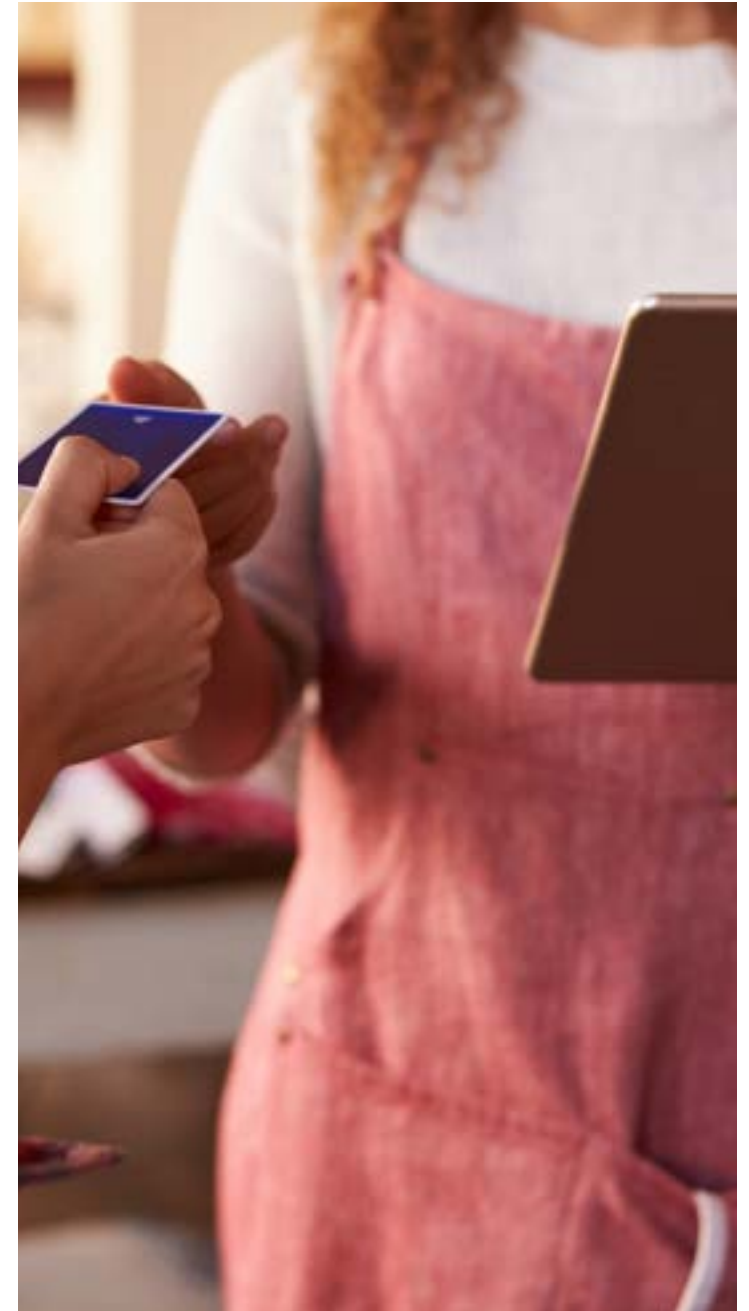


# RETAIL IS EVOLVING

By many measures, retail is the largest, most dynamic industry in the world. Buoyed by double-digit growth in developing countries, **global retail sales are projected<sup>1</sup>** to reach almost \$28 trillion (USD), or 30% of global GDP by 2020. The retail industry employs hundreds of millions of workers globally and it is an important driver of economic success in every country.

Over the last few decades, retail has changed substantially, and it is continuing to evolve. 30 years ago, people shopped at the mall or in their neighborhood. Consumers had fewer options, and their needs were simpler. Over time, expectations and shopping behavior has changed and retailers are trying to stay ahead of the game. They are trying to guess what brands and products are going to sell, for how much, where and when. Companies are always researching human behavior and looking for new, innovative ways to build customer loyalty.

**Retail sales will reach 30% of global GDP by 2020.<sup>1</sup>**



<sup>1</sup> <http://www.emarketer.com/Chart/Total-Retail-Sales-Worldwide-2015-2020-trillions-change/194243>



## ONLINE IS THE NEW CATALOG

First invented in the 15th century, mail order catalogs have been around for hundreds of years. However, it was **Sears Roebuck who popularized mail order business**<sup>1</sup> at the beginning of the 20th century. This trend peaked in the late 1980's with the dominance of J Crew, LL Bean, and Land's End.

According to a 1999 survey by the catalog industry<sup>2</sup>, over 46% of U.S. households purchased from a catalog the previous year. The reason for the success of catalog shopping in the 90's is very similar to online shopping today. Mail order shoppers preferred the convenience and home delivery of unique merchandise at a low price.

Other interesting findings from the 1999 survey include:



Gender

53% of women and 35% of men say they ordered something from a catalog in 1998.



Frequency

More women buy from a catalog, but men do it more frequently — 44% of males report they buy more than six times a year, compared with only 36% of female shoppers.



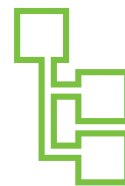
Income

High-income households are twice as likely to purchase by catalog than low-income households.



Age

18 to 25-year old's were more likely to purchase from a catalog than any other age group.



Category

Woman's apparel was the most popular category of merchandise purchased from a catalog, followed by children's apparel and products.

1 <https://medium.com/@pahwadivya/the-history-of-the-catalog-b5334841e941>

2 <http://multichannelmerchant.com/news/the-consumer-catalog-shopping-survey/>

# THE RAPID RISE OF ECOMMERCE

There is a recurring theme in the media around the death of brick and mortar retail and the ascendance of online shopping. When you focus on their respective growth rates, it is easy to believe that ecommerce will soon dominate traditional retail.

- Since the **first online transaction took place in 1994**<sup>1</sup> global ecommerce market has grown to reach \$2.3 trillion in 2017.
- By 2020, online retail sales will only account for about **14% of total retail sales**<sup>2</sup> globally, but will still be growing more than four times as fast as in-store sales and will reach 25% by 2025.
- In 2017, **Amazon was responsible for an estimated 44% of all U.S. online sales**<sup>3</sup>, or 4% of total retail sales.

However, despite the obvious success of ecommerce, the rumors about the death of in-store shopping are greatly exaggerated. We are not seeing the permanent transition from in-store to online, but more likely the creation of a new, integrated shopping experience that builds on the strengths of each.



Online sales will reach **25%** of in-store sales by 2025.

1 <http://www.nytimes.com/1994/08/12/business/attention-shoppers-internet-is-open.html>  
2 <https://www.emarketer.com/Report/Worldwide-Retail-Ecommerce-Sales-eMarketers-Estimates-20162021/2002090>  
3 <https://www.abiresearch.com/press/e-commerce-share-reach-25-2025-technology-drives-s/>  
<https://www.statista.com/statistics/249863/us-mobile-retail-commerce-sales-as-percentage-of-e-commerce-sales/>



## TECHNOLOGY STREAMLINES THE SUPPLY CHAIN

Retail companies are aggressively deploying new technology such as wearables, mobile devices, robotics and drones to satisfy consumer demand for increased availability, faster delivery and end-to-end visibility of products. Barcodes and RFID are key enabling technologies for warehouse management systems. Knowing exactly where items are located and in what amount allows companies to shrink their inventory and increase product velocity through the supply chain.



SOTI

# SHOPPING IN THE NEW WORLD ORDER

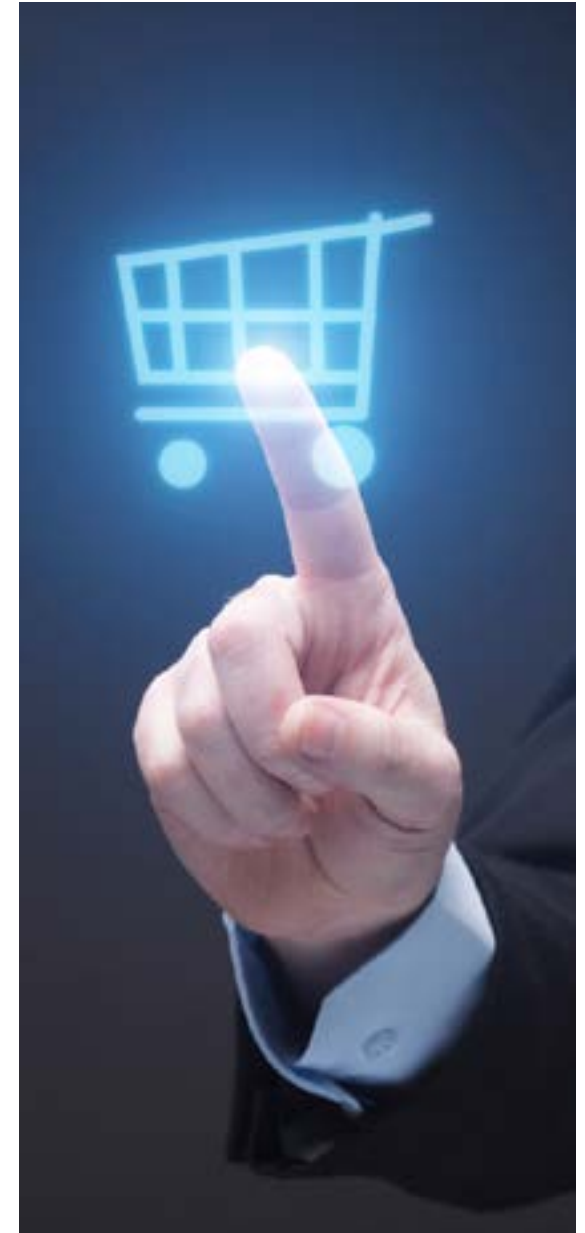
Consumer expectations are consistent around the globe and across every channel. Shoppers want a **high quality product at the best possible price, as soon as they can get it**<sup>1</sup>. What is changing is how consumers are making this happen, i.e. their shopping behavior. Contemporary shoppers are ignoring the distinction between online and in-store to create the shopping experience best suited for them on an item-by-item basis.

For example, **88% of shopper's "Webroom,"**<sup>2</sup> They research products online before purchasing them in a physical store. The internet makes it easy to compare products and find the lowest price, while delivering a helpful source of customer reviews. **Webrooming is most common for luxury items, DIY goods, appliances and automotive purchases.**<sup>3</sup>

Alternatively, 76% of shoppers will "Showroom." They interact with a product inside the store before purchasing it online. They want to "touch and feel" a product, make sure it fits, but still get the best price they can. Showrooming is most common for apparel, shoes and electronics.

There is a third alternative, "No Rooming." For some categories of products, the purchasing journey is exclusively online, while for others it happens entirely in the store. These days, **most shoppers browse and buy their books, music and videos online.**<sup>4</sup> Whereas, **78% of shopping for consumables**<sup>5</sup> such as groceries takes place within a grocery store.

**Contemporary shoppers are ignoring the distinction between online and in-store to create the shopping experience best suited for them on an item-by-item basis.**



1 <https://medium.com/stax-insights/consumer-decision-making-criteria-and-the-importance-of-price-1783d5589a8e>

2 <https://www.readycloud.com/info/webrooming-statistics-all-retailers-need-to-know>

3 <https://www.statista.com/statistics/589778/share-consumers-webroom-canada-category/>

4 <https://www.pwc.com/gx/en/industries/retail-consumer/total-retail/total-retail-categories.html>

5 [https://cdn2.hubspot.net/hubfs/544043/2016\\_Webinars/Food\\_Beverage\\_Consumables\\_Webinar/White\\_Paper/4th\\_Annual\\_Food\\_and\\_Beverage\\_Consumable\\_Study.pdf](https://cdn2.hubspot.net/hubfs/544043/2016_Webinars/Food_Beverage_Consumables_Webinar/White_Paper/4th_Annual_Food_and_Beverage_Consumable_Study.pdf)





## THE RETAIL REFORMATION

Most retailers, ecommerce as well as brick and mortar companies, are aware of the changes in consumer shopping behavior and trying to adjust. They are pursuing the omnichannel, a retail strategy that delivers on the strengths of each channel, online and in-store. Within the last few years, **Walmart, the world's largest retailer, has become the world's fourth largest ecommerce retailer (e-tailer).**<sup>1</sup> Other brick and mortar retailers showing successful online strategies include Tesco and Home Depot.

In the other direction, Amazon is steadily moving into the brick and mortar retail space. Their 2017 acquisition of Whole Foods and the steady growth of **Amazon's physical bookstores produced \$1.27 billion in sales in Q3 2017,**<sup>2</sup> approximately 5% of online sales. Other pure e-tailers are aggressively pursuing "pop-ups" on either a permanent, or a seasonal basis.

### WHAT IS THE OMNICHANNEL?

A multi-channel sales approach that provides the customer with a seamless, integrated shopping experience from beginning to end. Whatever the customer path to purchase, whether they are inside the physical store, shopping online from a desktop or mobile device, or a combination of both, the customer experience is seamless and consistent.

1 <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/consumer-industrial-products/gx-cip-2017-global-powers-of-retailing.pdf>

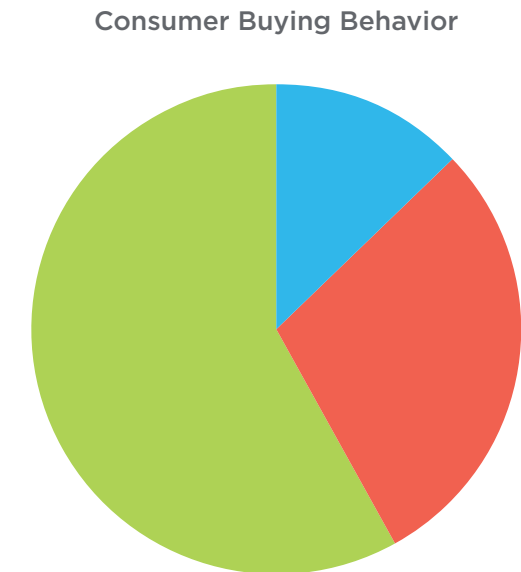
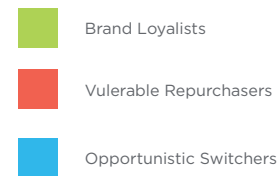
2 <https://www.geekwire.com/2017/amazon-adds-physical-stores-segment-earnings-report-expands-brick-mortar-footprint/>

# PUTTING THE CUSTOMER FIRST

Today's shoppers have many choices when it comes to finding and buying what they want. Even with all of the customer retention and loyalty programs available, shoppers are showing an overall decrease in brand loyalty and a growing inclination to "shop around."<sup>1</sup>

Retailers are clueing into this trend. They realize that acquiring a new customer can be 5 to 25 times more expensive than retaining an exiting customer<sup>2</sup> and that existing customers are more likely to spend more and try new products.<sup>3</sup> They know that that existing customers have 10x greater Customer Lifetime Value<sup>4</sup> (CLV) than new customers and that it is easy to lose a valuable customer forever.

Consequently, a big part of the Retail Reformation is a renewed focus on the customer. Retailers are investing in technology and training to improve customer service to create a "Shopper-Centric" retail experience. Traditional retail KPIs such as footfalls, AOV and margin are still important, but the new goal is a faster, seamless shopping experience in the store, online, and through any other channel.



Source: The new battleground for marketing-led growth, Mckinsey Quarterly - February 2017

1 <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/the-new-battleground-for-marketing-led-growth>

2 <https://hbr.org/2014/10/the-value-of-keeping-the-right-customers>

3 <https://www.invespro.com/blog/customer-acquisition-retention/>

4 <http://www.clv-calculator.com/customer-lifetime-value-existing-versus-new-customers/>

## SEPARATING HYPE FROM “HAPPENING”

Retail may experience more technology hype than any other industry. From [Augmented Reality \(AR\) shopping for shoes and furniture](#),<sup>1</sup> to [Amazon drone delivery](#)<sup>2</sup>, it seems like every month there is a new “disruptive” technology that is going to transform the retail experience. Many of these new technologies will be disruptive...eventually. Experts agree that the technology that is changing retail is not the overhyped stuff of tomorrow, but the more mundane things that are happening today.

- Rapid improvements in mobile technology and the US’s EMV mandate are driving mobile POS adoption which will enable almost [\\$240 billion in contactless \(NFC\) payments globally by 2021](#).<sup>3</sup>
- RFID improves retail inventory accuracy and is the key to omnichannel and Buy-online, Pickup in-store (BOPIS) initiatives. The global RFID market is expected to double to [over \\$24 billion globally by 2020](#).<sup>4</sup>
- Self-checkout (SCO) is still in its early days, but it is rapidly growing in popularity and will [grow by 44% between 2015 and 2021](#).<sup>5</sup> Integrating with RFID technology and computer visualization will accelerate SCO even further.
- The global digital signage market is expected to almost [double to \\$32 billion between 2016 and 2025](#).<sup>6</sup> Digital signage is less expensive as well as more sustainable and effective than traditional paper signs.



**The technology that is changing retail is not the overhyped stuff of tomorrow, but the more mundane things that are happening today.**

1 <http://www.augment.com/blog/3-consumer-giants-who-used-augmented-reality-for-retail/>

2 <https://www.youtube.com/watch?v=VAhPYI8X7cg>

3 [strategy-analytics-press-releases/strategy-analytics-press-release/2016/03/09/strategy-analytics-mobile-nfc-payments-growth-\(finally\)-on-the-horizon#.VuaegJOLT-Y](https://www.strategy-analytics.com/press-releases/strategy-analytics-press-release/2016/03/09/strategy-analytics-mobile-nfc-payments-growth-(finally)-on-the-horizon#.VuaegJOLT-Y)

4 <https://www.statista.com/statistics/299966/size-of-the-global-rfid-market/>

5 [https://www.rbrlondon.com/about/SCO\\_Press\\_Release\\_290616.pdf](https://www.rbrlondon.com/about/SCO_Press_Release_290616.pdf)

6 <https://www.grandviewresearch.com/industry-analysis/digital-signage-market>



## TECHNOLOGY ACCELERATES LOGISTICS

Logistics used to be a big black hole in the supply chain. Company's had good product visibility in the warehouse and the store, but lost track of it on the road. Advances in wireless communications, RFID technology and the Internet of Things (IoT) have almost eliminated that black hole. GPS, Electronic Logging Devices (ELDs), trailer track and trace systems as well as many different types of trailer sensors now deliver end-to-end visibility of product wherever it may travel. In addition, the imminent availability of autonomous trucks will reduce the number of accidents, lower shipping costs and reduce the impact of a looming driver shortage.

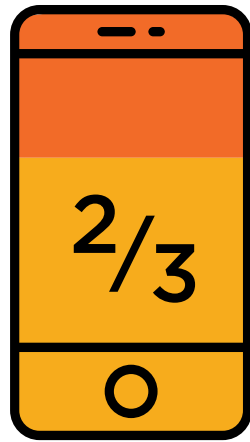


# SOTI'S RETAIL SURVEY FINDS THAT SHOPPERS PREFER IN-STORE TECHNOLOGY

In late 2017, SOTI conducted a survey in North America to gauge consumer attitudes about how technology affects their shopping experience. The majority of survey respondents think that in-store technology and connected associates have a positive impact on their shopping experience.



Over two-thirds of shoppers also believe that retailers that utilize more technology enable a faster shopping experience by making checkout faster and reducing the time it takes to find what they are looking for.



Two-thirds of the respondents are more likely to shop at a store that integrates technology into the shopping experience.

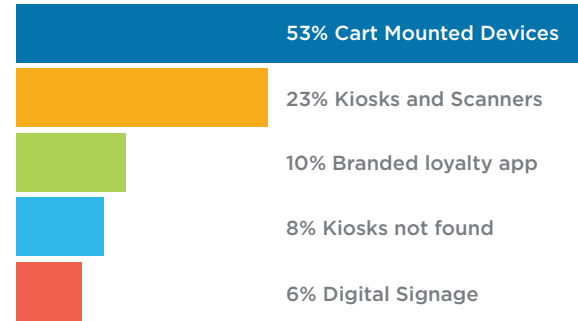
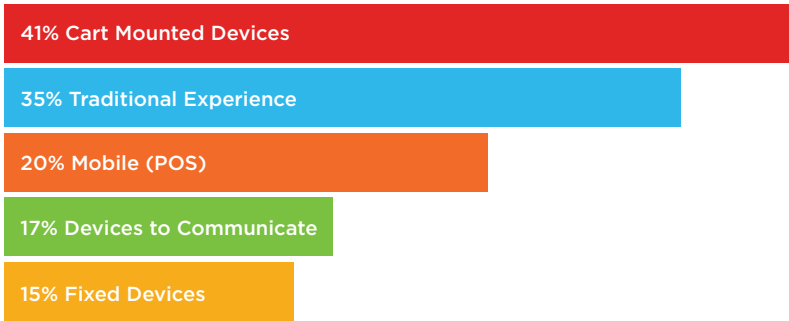


# SOTI RETAIL SURVEY CONFIRMS THAT CONNECTED ASSOCIATES IMPROVE THE SHOPPING EXPERIENCE

Just putting more technology in the store is not the answer. It is important that it is the right technology. Putting technology into the hands of your sales associates pays dividends in employee and customer satisfaction.



SOTI.

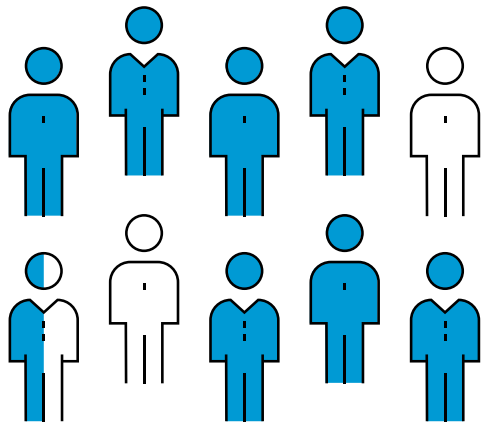


41% of respondents identified handheld or cart-mounted devices as being the type of tool that most helps sales associates deliver a better in-store shopping experience. Whereas, 35% of respondents prefer a traditional in-store experience. Other technology that respondents identified as beneficial includes:

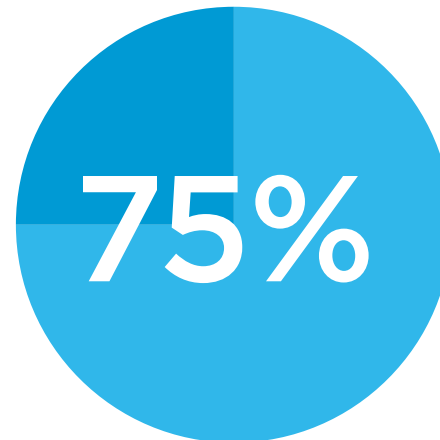
- Mobile POS (25%),
- Fixed devices/kiosks (15%)
- Devices to communicate with backroom associates (17%)

When asked which kind of self-service technology they would find most beneficial to their shopping experience, survey respondents identified self-checkout as most helpful (53%). Kiosks and scanners for price checking were less beneficial (23%), but still well ahead of:

- Branded loyalty app to deliver promotions and discounts (10%)
- Kiosks to check inventory not found in-store (8%)
- Digital signage for navigation (6%)



More than 75% of respondents think that sales associates with technology (Connected Associates) improve their shopping experience.



Over 75% of respondents stated they would be comfortable or very comfortable in a retail setting where only self-checkout was available.

# SOTI RETAIL SURVEY SHOWS THAT SELF-SERVICE, ESPECIALLY SELF-CHECKOUT IS IN HIGH DEMAND

Self-service technology is win-win for the shopper and the retailer. It lets the shopper find the products they want and pay for it on their own. It also allows the retail to manage their workforce more efficiently.

Once a shopper has found the product they were looking for, they want to checkout as fast as possible. The retailer also wants them to checkout as fast as possible to avoid grumpy customers or the possibility that the shopper abandons their purchase and walks out of the store empty-handed.







## TECHNOLOGY SHRINKS THE LAST MILE

Shoppers desire immediate gratification. When they can't walk out of the store with a product, they want it as fast as possible — same day delivery, next day delivery, or BOPIS. Retailers are trying many ways to shrink the last mile. **Robots (AGVs)** and Drones (UAVs) are high profile technology solutions fast delivery. They are also experimenting with **crowdsourced delivery** to augment their fleet during high volume periods.



## MORE TECHNOLOGY CREATES MORE RISK

Shoppers want more technology in-store to find the product they were looking for and checkout faster, while retailers want more technology in-store to improve customer service and reduce costs. However, all this new technology creates new challenges. As retailers deploy more in-store technology, they are intensifying many of their existing mobility management challenges, and introducing many new ones.

## MAINTAIN COMPLIANCE, SECURITY AND PRIVACY

New retail technologies such as EMV chip cards and contactless payment apps are more secure and convenient. However, there are accompanying regulations and compliance issues. All POS systems must be Payment Card Industry Data Security Standard (PCI DSS) compliant to increase controls around cardholder data to reduce credit card fraud. In addition to securing payment information, customers are insistent on keeping their personal data private.

## MANAGE EVERYTHING

All the new endpoints, sensors and devices being deployed in-store require full lifecycle management more than ever. Retailers that have previously focused on special purpose mobile devices for their supply chain will now be dealing with hundreds of new types of mobile devices and IoT endpoints. These new devices and endpoints will range from simple little motion sensors to complex systems such as drones and robots.

## ELIMINATE DOWNTIME

The more a mobile technology a retailer deploys, the more they depend on it to run their business. Companies need to find and fix device and app problems as quickly as possible to reduce downtime. If your POS system is down, sales and customer satisfaction are going to suffer.





## SOTI DOES IT ALL

SOTI has managed mobility for two decades. It started with the management of special purpose devices and evolved to include smartphones and tablets running any operating system, Windows, iOS, Android and most recently Linux. SOTI is the global leader at delivering security and management solutions for retail company's mobility deployments.

Throughout this 20-year period, SOTI has maintained an agnostic approach to mobility management. Simply put, SOTI does it all. Whatever device make, form factor, and operating system you need, as well as however it can be deployed; COBO, COPE or BYOD. SOTI can support whatever you need, and will continue to do so as long as you require.

SOTI's agnostic approach extends beyond mobility management. Recently, the company launched SOTI ONE, an integrated suite of mobility solutions. SOTI ONE keeps your workers working, builds your apps faster and manages your mobile devices and IoT endpoints. It uses business intelligence and analytics to help you improve and automate your business in ways you never imagined.

- WINDOWS EMBEDDED
- WINDOWS 10
- ANDROID
- IOS
- LINUX



## SOTI IS MORE THAN JUST MOBILITY MANAGEMENT

SOTI is the industry leader for creating innovative mobility and IoT solutions for businesses of all sizes. Thousands of companies around the world depend on SOTI to simplify their business mobility, and make it smarter, faster and more reliable. After two decades of success, SOTI has attained a thorough understanding of industry verticals and built strong partnerships with device manufacturers. This provides unparalleled insight into new technology and industry trends before they happen. Clear vision and a strong focus on R&D has allowed SOTI to lead the business critical mobility and IoT markets and create new, cutting edge business solutions. SOTI helps businesses take mobility to endless possibilities.

---

SOTI is a proven innovator and industry leader for simplifying business mobility and IoT solutions by making them smarter, faster and more reliable. SOTI helps businesses around the world take mobility to endless possibilities.

[soti.net](https://soti.net)