

Top Tech Trends in Retail

Now more than ever, the best retail therapy is a five-star customer experience.

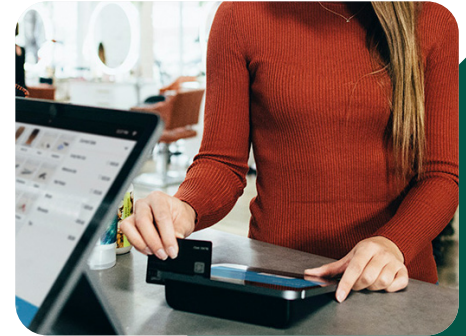


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The Wall Street Journal calls it “the great reset.” *Forbes* claims it’s the year of the ultimate customer experience, and the National Retail Federation says that this year is less a crystal ball and more a “snow globe” for retail predictions.

One thing is for certain, there are huge challenges for retail going into 2022 as the pandemic wanes and shoppers itch to get back into the store to have the intimate experiences with products they enjoyed in a past life.

But of course, where there’s a challenge, there’s also an opportunity. While we’ll leave it to the pundits to try to see through the blizzard, we’ve got a pretty clear idea of which technology tools and solutions will help retailers the most this year, despite ongoing uncertainty.



Smart stores deliver better shopper experiences

The end of brick-and-mortar shopping has been greatly exaggerated. Yes, e-commerce got all the headlines over the past two years, but consumers want to interact with, touch, and feel products, and it's drawing them back to stores. This could explain why more than 70% of consumers have no concerns about returning to in-store shopping—a nearly two-and-half times increase from 2020.

With the pandemic reset, how can in-store shopping improve? First, you can now make your stores smarter. A smart store uses pervasive Wi-Fi, smart cameras, sensors, and other internet-of-things (IoT) technologies to meet the desires of both consumers and employees, as well as your bottom line. Over four in ten retailers are using IoT/smart cameras to enhance security, and nearly all (93%) think shoppers will increase their use of mobile devices in-store.



These foundational technologies make the store smarter by enabling new experiences and insights. By unleashing wayfinding and geolocation, augmented reality and virtual reality (AR/VR), digital endless aisles, wireless self-checkout, and advanced stock replenishment, in-store retail may be stronger than ever.

By 2023, up to 40% of tier 1 retailers will leverage intelligent automation among their store workforce.

Source: Gartner, *CIO Agenda 2022*

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SPLASH ACCESS

Instant, custom splash pages for Wi-Fi access.



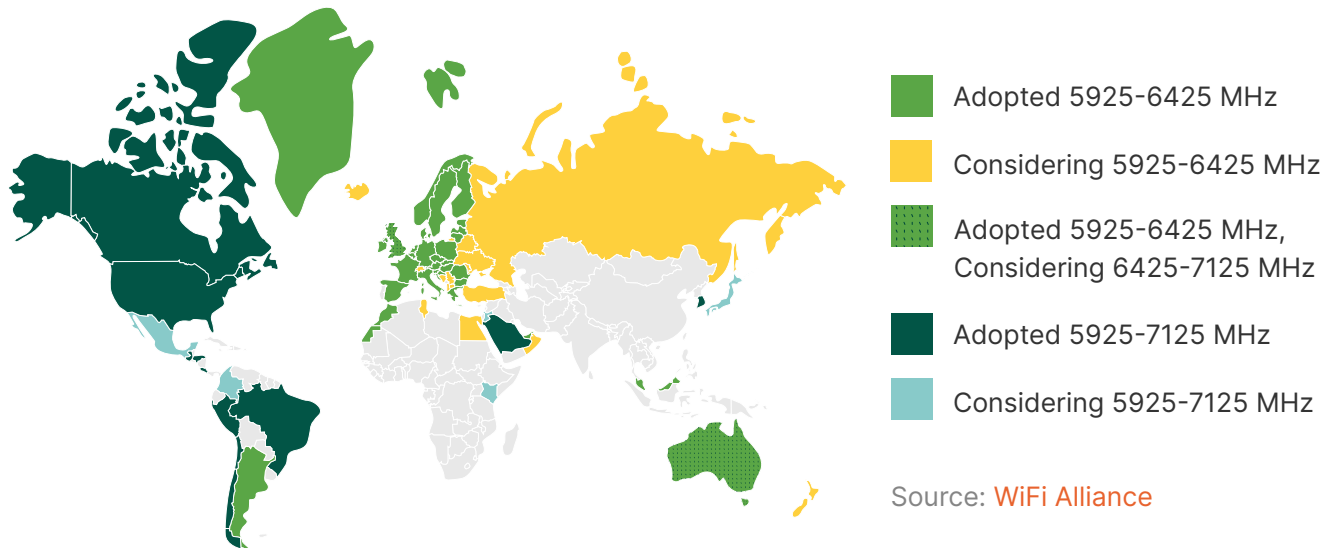
Wi-Fi 6 powers shopping, in-store and out

As the most significant advancement to wireless networking in 20 years, the arrival of Wi-Fi 6E opens up truly exciting possibilities for connectivity. Wi-Fi 6E is an extension of Wi-Fi 6 that brings faster speeds, lower latency, and more security to the network. With more bandwidth and less congestion, retailers will reap the benefits from the availability of the 6 GHz spectrum.

Wi-Fi 6E is the most robust Wi-Fi technology available—ready to meet the needs of today's modern retailer. With the increase of solutions relying on network connectivity (location analytics, touch-free shopping, IoT solutions), it's important to have a network that has the capacity to handle more devices as well as provide more security.



With the influx of new Wi-Fi 6 mobile devices, data traffic per smartphone is expected to increase tenfold from 2016 to 2022. And with more than 90% of consumers using mobile devices while they shop, retailers have an opportunity to improve the customer experience by taking advantage of the boosted performance Wi-Fi 6 offers and investing in tools that leverage mobile technology.



Source: [WiFi Alliance](#)

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ZENREACH ENGAGE

Transform the way
you engage with
your customers.

Location analytics kick-start better consumer engagement

Location analytics have been in use in retail for a number of years, however, gains in processing power and cloud computing have increased its relevance substantially. Spatiotemporal analytics—the study of movement over time in a particular geography—is expediting retail decision-making by identifying patterns and anomalies, such as footfall in stores.



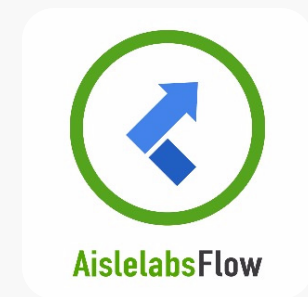
This real-time location data analysis can provide information at aisle-level that highlights shopper time and distance data anonymized from mobile device pings and camera and sensor information. When married with customer data, location analytics can help drive targeted promotions, greater loyalty, and increased revenue.

Nearly four in five retailers use location data for geotargeted marketing, and it goes further. Location data is helping solve supply chain problems, improve operational efficiency, and reduce costs.

Location intelligence leaders experience 1.3 to 2.0 times greater improvements in customer experience, sales performance, and operational efficiency than non-leaders.

Source: *Boston Consulting Group, Unlocking Value with Location Intelligence*

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AISLELABS FLOW

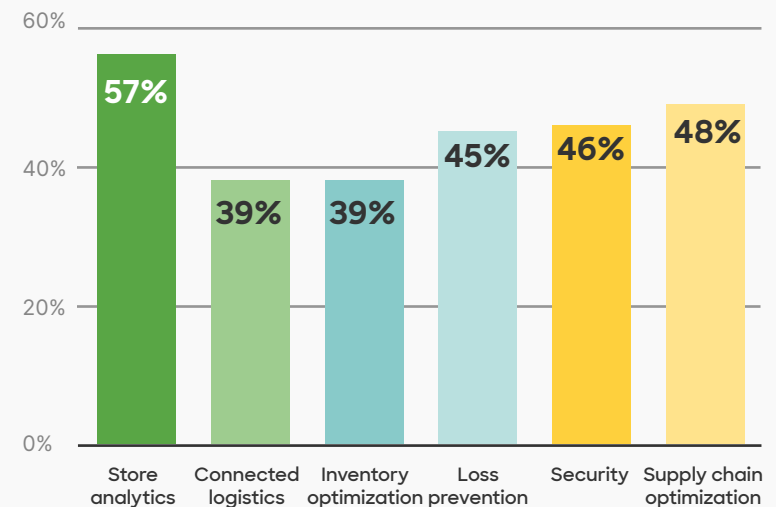
Cloud-based
location analytics.

Internet of things (IoT) drives efficiency

To help recover from the pandemic, retailers are looking for ways to be more efficient and reduce costs. To that end, retail leaders are reimagining their businesses by investing in platforms that integrate IoT, AI, and edge computing technologies.

Retailers are using IoT for store analytics (57%), supply chain optimization (48%), security (46%), loss prevention (45%), inventory optimization (39%), and connected logistics (39%), and 94% of retailers agree that the benefits of implementing IoT outweigh any potential risks.

HOW RETAILERS ARE USING IOT



Source: Microsoft, *IOT Signals Retail Spotlight*

One area that is gaining traction is electronic shelf labeling. These serve key retail priorities, including labor reduction, customer experience, and the blending of the physical store with digital. Electronic shelf labeling provides retailers with highly automated, data-driven, digital assets connected in real time to brands and consumers.

Nearly nine in ten retailers considered the use of connected technologies inside their stores a critical component of their success.

Source: [Microsoft, IOT Signals Retail Spotlight](#)

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The logo for SES-IMAGOTAG VUSION is displayed within a white rounded square. It features the text "ses imagotag" in a small, lowercase, sans-serif font, with "ses" in bold. Below this, the word "VUSION" is written in a large, bold, uppercase, sans-serif font.

SES-IMAGOTAG

The global leader in digital price tags.

Contactless retail is here to stay

Contactless shopping became a necessity during the pandemic, and consumers are saying they want it to stay. Recent data shows that nearly 45% of consumers would not shop at stores that only offer payment via cashier or shared device. Contactless shopping can include payments, digital mirrors in the fitting rooms, virtual shopper assistants, and curbside delivery.



As curbside contactless delivery has grown, technologies such as smart cameras, computer vision, sensors, and automated license plate recognition (ALPR) are being deployed to elevate the consumer experience. A recent survey shows that 75% of consumers completed an in-store or curbside pickup in the past six months. While the pandemic may wane, the desire for contactless shopping is here to stay.

50% of retail IT executives are working to implement contactless, frictionless transactions within the next 12 months.

Source: *Comcast Business, Retail Trends Report: CX Driving Digital Adoption & Connectivity Needs*

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PLATE RECOGNIZER ALPR

License plate recognition
in three minutes.

It's all about data, data, data, AND privacy

More customer data is being collected than ever before—both online and in-store—so retailers can improve the shopper experience, enhance core sales, and better leverage emerging monetization opportunities.

In fact, 81% of retailers and brand manufacturers say they gather shopper insights and 76% consider insights to be critical to their performance. But here's the rub—only 16% consider themselves experts when it comes to harnessing data; most say they are “newbies”(24%) or “getting there”(60%).



As customer data collection increases, the need for privacy and security will only grow. In a recent survey, 43% of consumers acknowledge that their concerns about data privacy have increased, and only 5% of consumers place their trust in retailers to ensure data privacy.

Retailers are primarily using data to digitally engage the customer in-store to drive sales (52%), power rewards programs (51%), and enhance the customer experience (47%).

Source: *Microsoft, IOT Signals Retail Spotlight*

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PURPLE

Transform venues into intelligent spaces.

Customer experience is energized by better inventory management

Inventory management has always been a key retailer need. With the accelerated growth in e-commerce and the smart/digital store, transparent inventory management can enhance the customer experience now more than ever. Nearly **45% of retail IT decision-makers** indicate that inventory availability is an important customer preference that is driving their technology purchase decisions.



Likewise, nearly six in ten retailers consider inventory management as the top retail technology priority. For them, streamlined customer experiences cannot exist without strong back-end operational efficiencies. Helping this endeavor are smart cameras, sensors, and cloud-based analytics.

43% of retailers believe enhanced stock-level visibility would help them better serve customers and increase the overall experience.

Source: SML Group, State of Retail Insight Report: Better Serving Customers Through Technology

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EVERYANGLE STOCKROOM UTILIZATION

Transform venues into intelligent spaces.

Shrink theft by boosting inventory intelligence

Although the pandemic reduced the number of brick-and-mortar shoppers, 2020 saw thefts increase nearly 20% from 2019, and the numbers don't seem to be receding. Today, retailers can use new tools to detect and deter theft, whether from shoppers or employees. Smart camera technology allows stores to reduce theft through auto notifications, advanced behavior detection, and other artificial intelligence and machine-learning tools.



Edge computing and video analytics are increasingly being used to detect intruders, read license plates, count people, monitor perimeter and fence lines, and even identify unwanted behavior. These technologies are proving to be the silver bullet for loss prevention.

CASE AVERAGES

Total thefts: \$440.48, up 19.2% in 2020

Shoplifters: \$310.11, up 13.0% in 2020

Employees: \$1,219.61, up 3.8% in 2020

Source: Jack L. Hayes International
33rd Annual Retail Theft Survey

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viana[™]
a meld^{cx} product

VIANA LOSS PREVENTION

Detect suspicious activity
via vision analytics.

No need to clip—the rise of digital coupons

Coupons became a shopper staple in 2021 as prices increased at the highest rate since 1982. But not all coupons are created equal. Digital coupons have outpaced free-standing inserts (FSIs) for the first time, even though the latter has 20 times the distribution volume.



A new generation of mobile load-to-card options provides shoppers with many ways to save. With authentication via splash pages, retailers are expanding their mobile footprint to include mobile wallets (Google Pay/iOS Wallet) that provide more simplified, personal engagement.

Digital coupon redemptions were 33% in the first half of 2021, with 24% for free-standing inserts (FSIs), and digital coupons saw a 13% increase, year-over-year.

Source: Inmar, 2021 Promotion Industry Trends Analysis and July Shopper Insights Study

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CLOUDIFI GUEST CONNECT

Simple captive portal for controlling guest Wi-Fi.

Protect your top AND bottom line with 5G and SD-WAN

Point-of-sale (POS) outages can cost the average retailer \$4,700 per minute, or \$282,000 per hour, while 87% of retailers wait up to four hours for support when an outage occurs. Imagine how those numbers impact the top and bottom line.


To combat outages, leading retailers are looking to advanced software-defined wide area network (SD-WAN) solutions with analytics. This can dramatically reduce resolution times, boost performance, and anticipate issues before they cause disruption to minimize downtime impacts.



Additionally, fifth-generation (5G) cellular networks can serve as failover protection, providing another safeguard if the primary network goes down. With its lower latency, higher reliability, and speed, 5G can carry the load so that application and network downtime is no longer an issue.

70% of retailers/wholesalers say connectivity programs (including enterprise network infrastructure, 5G, Wi-Fi, and mobile applications) will be top priorities to ensure long-term resilience and success.

Source: IDC Future Enterprise Resiliency & Spending Survey, February 2021, Retailers n=62



Technology is today's driving force for consumer and employee experiences

By staying on top of the latest technology trends, retailers will be well positioned to thrive in 2022 and into the future. To learn more about innovative tech solutions for retail, be sure to check out our handy retail solution guide.

[GET THE GUIDE →](#)





To learn more, visit Meraki.com

Ready to take a proactive approach to your organization's security? Email our IoT sales team to discuss further: merakiot@cisco.com