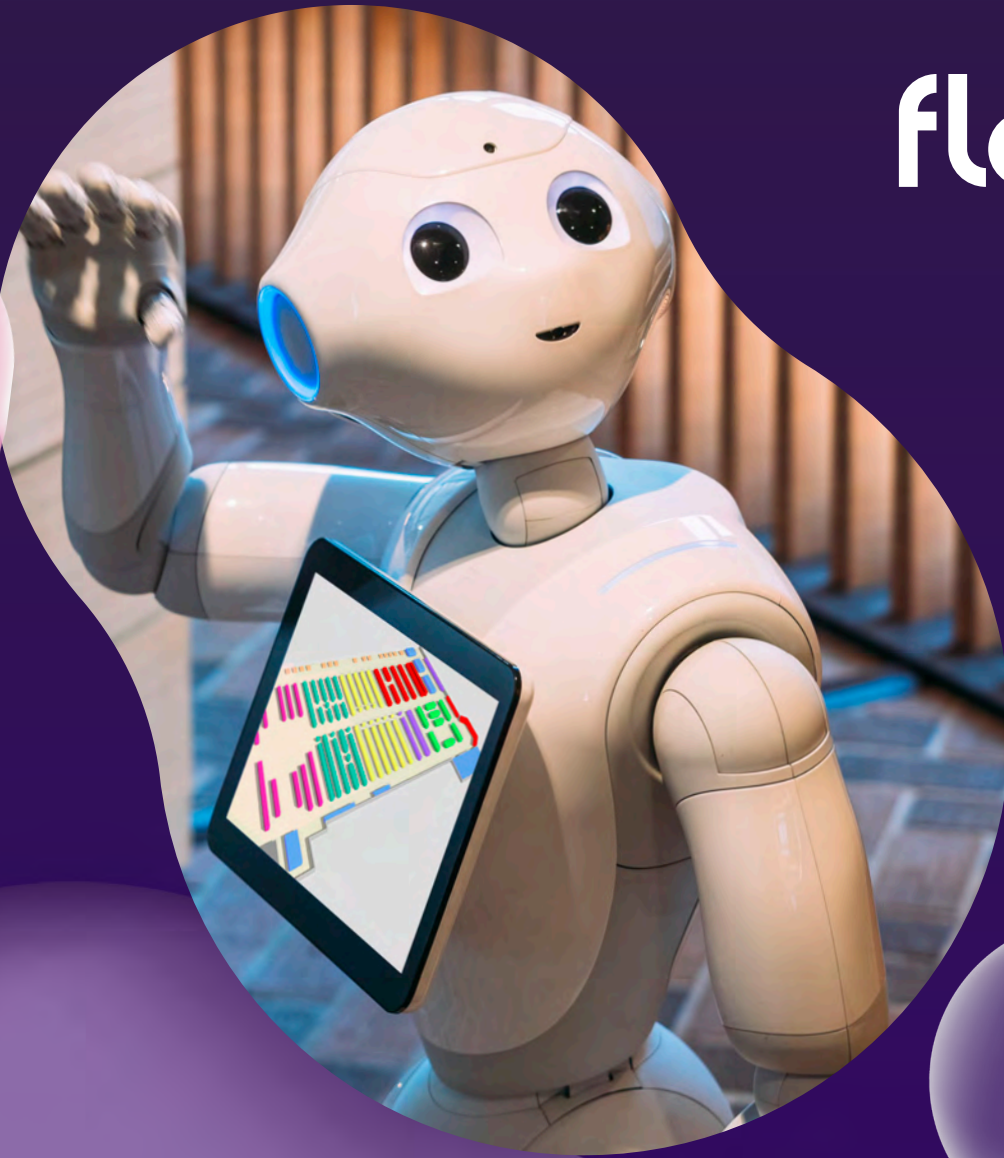


flooid
a GLORY company



The store of the future

Flexible, empowered,
immersive shopping

The world of retail is changing fast. As digital technology evolves, customers increasingly value flexibility, personalization and efficiency when they shop. Retail businesses must move quickly to meet the demand for new in-store experiences.

At the heart of this change dynamic is the store. Following the upheaval of the Covid-19 pandemic, shoppers returned to physical stores in force. Retailers responded by adapting their bricks and mortar locations into destinations that encourage seamless transaction flows. Many embraced the empowering functions of the self-checkout kiosk, with **up to 40%** of US grocery chains employing the kiosks in store. Some retailers, including Walmart and Kroger, trialed self-checkout only stores, leading the global market for a technology set to expand at a compound annual growth rate (CAGR) of **13.4%** from 2023 to 2030.

Other advancements included augmented reality hybrid shopping that allows customers to visualize products digitally, AI-assisted computer vision and object sensors that enable contact-free shopping, mobile scan-and-go services. In addition, RFID tagging for faster checkout experiences and digitally dextrous workforces empowered by data insights processed through cloud computing have evolved from POC to rollouts.

With much of this technology now a key component of retail businesses, we're approaching a store of the future that uses data to create an immersive, personalized and seamless experience. From AI-powered smart carts for frictionless shopping to drone delivery, smart mirrors, shelf-level and in aisle experiences and AI-powered personalized shopping, the store of 2030 could look vastly different to the locations we know today.

Faced with a plethora of options to enable in-store modernization, as well as associated risks including self-checkout theft, the possibility of data leaks and the costs of adopting new technologies, retailers can easily become overwhelmed when deciding how to best serve their future customers and businesses. Thankfully, solutions lie in the combination of cloud-based platform solutions and endpoint management services that empower associates while integrating new technology. Through providing seamless omnichannel connections, retailers can reduce loss and encourage loyalty. With the right partner, the store of the future can ultimately become an exciting prospect today, for both consumers and retailers alike.

***Physical stores
account for 80%
of retail sales***

Source: **NRF**

Retail – adapting to evolutionary technology

Retailers are focusing on the customer journey when planning their future stores. Here are some examples of real-life use cases:

Omniscient stores and flexible customer experiences

RFID tags are an invaluable resource not just for inventory accuracy, but also to accelerate self-checkout times and reduce shopper frustrations at long queues. Retailers, such as Decathlon and Uniqlo, have embedded their products with small, hidden RFID tags, each featuring a unique code that is read by the self-checkout kiosk without the need for individual scanning. Shoppers can place all their items in the bagging area and wait for recognition – upon payment the tag is disabled and they are free to walk out with their items. If a customer walks out of the store without paying and deactivating the tag sensor, security mechanisms are alerted. Clothing brand Zara is another RFID convert; its owner Inditex reports that it could reduce checkout times by 50% and potentially lead to theft reductions of up to 80%.



93% of North American retailers use RFID technology

Source: [Accenture](#)



Smart sensors

AI-powered computer vision can also help shoppers speed up their purchases thanks to its advanced recognition capabilities. Rather than spending time manually inputting the identity of certain items, such as loose produce, computer vision cameras can identify products automatically, leaving customers to choose from a set of options with the highest probability of accuracy. Since customers are slower at scanning than cashiers, [averaging 85 seconds](#) per basket at best, computer vision can ultimately help produce touchless, smooth transaction flows. Coupled with RFID technology and sophisticated embedded barcode technologies like Digimarc, smart, seemingly omniscient technology can also be used to track inventory and provide a live picture of accurate stock levels.

Mobility

Mobile scan and go systems can facilitate minimal intervention solutions for retailers looking to create a queue-free shopping experience. Used by major grocery retailers, such as Marks & Spencer, Waitrose, Tesco and Asda as well as Dollar General and Kroger, the technology typically employs an app that customers can activate on their own devices to scan items, pay online and walk out of the store without any need for interactions with staff members. Coupled with the increasing adoption of biometric payment, mobile scan and go systems move one step closer to embodying the best of both physical and digital retail worlds.

It was an exciting disruption when Amazon took queue-free technology one step further with the advent of its Just Walk Out stores. Combining computer vision with sensors and camera scanning, the stores enable consumers to pick items directly off the shelf, place them into the basket and pay digitally as they leave. Along with several other innovative startup companies, the multi-national has also introduced an AI-powered smart cart that helps customers locate items with an on-cart screen featuring maps and navigation, and delivers personalized shopping experiences that track savings and spending in real time.

New layouts

Indoor positioning systems can also better help customers seamlessly navigate stores to reach their desired locations. Through using Bluetooth-enabled IoT systems, for instance, Target has created an interactive map that customers can access on their smartphones to accurately locate themselves in-store. Marks and Spencer have recently introduced self checkout in their dressing rooms, facilitating a fast and convenient way to checkout.



Younger shoppers are 2X to 3X as likely to have shopped using emerging media like social media and virtual try-ons through augmented reality

Source: [Google](#)



New realities

Augmented reality is in the early stages of being deployed to allow consumers to engage with products in more detail from the comfort of their screens. Makeup giant Sephora developed its own virtual try-on app, while Nike's Nike Fit app uses augmented reality and AI to scan users' feet and analyze their ideal shoe size before purchasing. In-store, smart mirrors incorporate AR to provide additional details and even virtual assisting for the consumer, with trials of the technology underway at H&M and Adidas.

Data – the true foundation of the future store

Behind the scenes, data processed through cloud computing will enable new technological developments to be employed effectively and efficiently. Generative AI will be increasingly used to understand consumer dwell time and interaction with products, while facial recognition technology will help produce insights into product popularity, allowing retailers to adjust their inventory accordingly.

Where physical data centers operate at an enormous electrical consumption cost and carbon footprint, as well as requiring physical maintenance, the migration to cloud computing will not only save in electrical costs and contribute to environmental initiatives to reduce the global carbon footprint, but also allow for retailers to scale and innovate faster thanks to accelerated upgrades and more efficient testing of new capabilities.

With greater data insights at their fingertips, store associates will perform increasingly flexible roles and deliver an excellent customer experience. As physical retail stores remain the hub of unified retail commerce, frontline staff will take on multifaceted, data-enabled roles to help consumers in their personalized, hybrid retail experiences.

87% of CIOs are increasing investments in Business Intelligence and Data Analytics.

80% of CIOs are increasing investments in Cloud Computing.

Source: [Gartner](#)



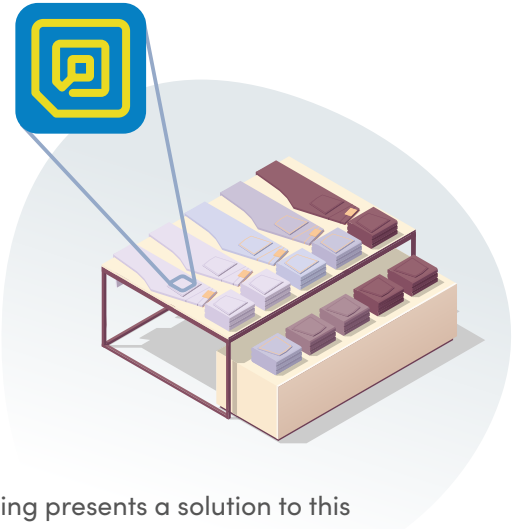
71% of consumers expect companies to deliver personalized interactions and 76% get frustrated when this doesn't happen.

Source: [McKinsey](#)



Shrink and divided attention: Future retail risks

Burgeoning technologies can present significant risks to retailers, as well as opportunities. As businesses incorporate increasingly low-intervention solutions throughout their stores, theft and criminal activity has proliferated. Shop thefts [more than doubled](#) in the UK over the past six years, while in the US shrink accounted for [\\$112.1 billion in losses](#), up from \$93.9 billion in 2021. Self-checkout kiosks can be a contributor to this retail theft epidemic, with criminals employing tactics such as product switching (choosing a cheaper item to place on the weighing scale than the one taken), barcode switching (multi-scanning a barcode for different, more expensive items) and simply walking away with baskets of items without paying.



RFID tagging presents a solution to this problem thanks to the unique embedded codes activating security gates if customers attempt to leave without paying. Yet, the cost of RFID implementation and tracking can still be significant to retailers, including the costs of tags themselves, reader units, software, licensing and maintenance prices, and the labor value involved in logging and tagging items. The TCO for asset tracking of just 1500 items can total [over \\$20,000](#) according to one case study analysis.

Cost is another potential reason why frictionless checkout technology is being phased out by some retailers following trials. Despite being in development since 2018, earlier this year Amazon made the choice to pull its Just Walk Out feature from its major grocery stores in favor of smart carts. Amazon stated this was due to customers wishing to track and itemize their spending in real time, with entirely contact-free shopping feeling alienating to some. [Other commentators](#) cited the cost at more than \$200,000 to install the technology in each store becoming increasingly difficult to justify, as well as concerns over data tracking of consumer habits.

\$94.5 billion in losses
2022 shrink costs in
US stores

According to [NRF research](#)



Ultimately, with such a range of technological innovations and customer journeys on offer, in-store associates are increasingly required to juggle multiple roles and responsibilities at once, potentially leading to an overwhelmed and distracted workforce. When it comes to self-checkout kiosks, for instance, staff members are often required to monitor large banks of machines, and since the kiosks rely on customers to accurately scan and pack their own items, opportunities for shoplifting can increase. A recent ECR survey found that SCO systems accounted for as much as 23% of their total unknown store losses, with malicious losses representing 48%.

The fast-paced world of retail and pressurized work environments can also take a toll on associates' mental health, as a recent survey from the Retail Trust found that inadequate training and poor workplace management led to 80% of UK retail workers feeling more stressed in the past year. Since associates are key to delivering and implementing the type of compelling and flexible shopping experiences customers increasingly expect, safeguarding their attention and wellbeing is fast becoming a crucial consideration.

Due to excessive stress, 5% of retail employees have left their job over the past year and 26% are considering leaving their jobs.

Source: [British Retail Consortium](#)



Trusted partnerships for future growth

Delivering memorable customer experiences and integrating the right technology to encourage future growth is clearly no easy task. Contending with the variety of point-of-sale solutions, maintaining consistency and reducing shrink can seem an overwhelming prospect for retailers. Businesses must understand the latest technology and act on their concerns without hesitation if they are to keep their customers satisfied and stay ahead of their competition.

One solution for retailers is to work with a trusted partner that has a longstanding history of helping the world's biggest brands tackle the latest developments in the fast-moving world of retail. At Flooid, we have over four decades of experience as a trusted advisor and technological expert, helping retailers make the decisions that work best for them.

When it comes to future-proofing retail locations and enabling businesses to adapt to new technology at pace, our range of management services make change easy. Flooid's cloud, platform and endpoint management services all utilize innovative data monitoring and alerting solutions through interactive dashboards. Our Insights Data Platform puts the retailer in the driving seat, providing easily accessible data in stores and empowering associates to stay on top of tasks related to management and audit, sales performance and store performance, as well as tackling four key areas for future growth:

Four key areas for future growth



Controlling Loss

Empowering associates through alerts and live transaction tracking via our Empower app, allows for seamless integration with RFID tagging and location, as well as insights into performance and inventory and intelligent self-checkout capabilities.



Seamless Omnichannel

Easily connecting online insights and digital inventory with in-store actions, allowing associates to handle mixed baskets, payments and fulfilment to tailor the customer experience that is right for your retail business.



Personalized Journeys

Intuitive and efficient checkout journeys incorporating customer loyalty, preferences and historical purchases, allow retailers to easily promote subscriptions, tailored offers and premium checkout options.



Frictionless Checkout

Allowing retailers to facilitate low-intervention customer journeys that are convenient, accessible and easy to use. Integrating biometric information, mobile self-scan and payment options, as well as computer vision, enable businesses to create smoother and trouble-free retail environments.



The future is arriving quickly, and retailers have plenty of options to give their customers flexible, frictionless and hybrid in-store experiences. From modernizing points of sale to implementing unified composable commerce platforms, migrating data centers to the cloud and embracing consumer-driven shopping without compromising on choice, Flooid has the expertise to find the right solution that works for you.

Ultimately, the store of the future doesn't have to be intimidating. Work with a proven partner to design, deploy and deliver solutions, and begin your modernization today.

If you are interested in learning how Flooid's solutions can help make your retail locations more efficient, cost-effective and future-ready, please [speak to a member of our team](#).

About Flooid

Flooid, a Glory company, is a market-leading unified commerce platform provider that enables retail and hospitality brands to sell to customers flexibly and consistently, wherever they are and however they choose to shop. Our scalable, cloud-native composable solution portfolio includes the following:

- Assisted and self service experiences
- An open API services platform
- An operational business analytics platform and insightful dashboards
- Managed services for cloud, platform and end points

Our flexibility enables retailers to select the right mix of partners to facilitate an optimal selling journey. One unified commerce platform. Unlimited innovation.

flooid.com

About Glory

As a global leader in cash technology solutions, we provide the financial, retail, QSR, cash centre and gaming industries with confidence that their cash is protected and always working to help build a stronger business.

Our cash automation technologies and process engineering services help businesses in more than 100 countries optimize the handling, movement, and management of cash. While we span the globe, we personally engage with each customer to address their unique challenges and goals – enhancing staff efficiency, reducing operating costs and enabling a more rewarding customer experience.

Employing over 11,000 professionals worldwide with dedicated R&D and manufacturing facilities across the world, Glory Ltd. is built on a rich customer-focused, technology-driven heritage spanning almost a hundred years.

glory-global.com