

Retail just got smarter. Welcome to the evolution of retail powered by 5G.

Solution brief

5G Edge Cashierless Checkout
for retail and venues



Rising customer expectations and new tech-enabled competitors pose challenges to many retail businesses. Retailers may also face labor shortages, data protection needs, and problems with inventory shrinkage and operational efficiency.

5G Edge Cashierless Checkout can help you turn those challenges into opportunities.

This solution provides autonomous checkout and inventory management, using computer vision and machine learning paired with Verizon 5G connectivity¹ and near real time processing thanks to edge computing. It works well in traditional retail settings, such as convenience stores, airports and train stations, as well as venues such as stadiums, theaters and racetracks.

How does it work?

Here's a three-step look at how 5G Edge Cashierless Checkout provides a simplified shopping experience that can benefit you and your customers.

- **Step 1. Easy Entry:** Shoppers check in using their credit card or your branded loyalty app. A turnstile or gate entry is implemented to access the shopping space.
- **Step 2. Seamless Shopping:** Cameras work in conjunction with a computer vision and machine learning system to track shopper movement and interactions with specific items, without the use of facial recognition.
- **Step 3. Cashierless Checkout:** When shoppers are done shopping, they can simply exit the store—a digital receipt is then generated and sent to them.^{2,3}

Customers are looking for these solutions now. Why use 5G Edge Cashierless Checkout?

According to an IDC Global Retail Survey:

- **35%** of retailers plan to invest in computer vision for frictionless shelf-checkout or automated checkout⁴
- **34%** for fraud and loss prevention⁴
- **37%** for traffic intelligence and queue management⁴

Benefits of 5G Edge Cashierless Checkout

Whether you're looking to redefine the retail experience or provide a unique and convenient way to purchase goods while at a venue, 5G Edge Cashierless Checkout may be your solution. It could help you:

- **Reduce customer transaction time**
When customers are finished shopping, they simply exit the store. No need to scan items or interact with a cashier.
- **Find the optimal inventory mix for each location**
Back-end store analytics enable data-driven decision-making.
- **Increase transaction counts and basket size**
Leverage data analytics to prioritize best-selling items to help bolster transactions.
- **Reduce or repurpose onsite labor**
Checkout personnel can be reassigned to other tasks and customer-service-based activities; in some cases, a store location can be completely unstaffed.
- **Improve overall sales efficiency**
You can enable a higher sales-per-store ratio by reducing checkout lanes and creating more shopping space.
- **Reduce shrinkage**
Computer vision monitors store activities to limit shrinkage and improve inventory tracking.

Delivering transformational results today with 5G Edge Cashierless Checkout.

Our customers typically see:

- Increase in transaction count
- Increase in basket size
- Reduction in customer transaction time
- Reduction in the required amount of personnel
- Revenue increase

Solution details

5G Edge Cashierless Checkout, when paired with 5G Ultra Wideband, provides a secure platform for contactless checkout.¹ Available as a software-as-a-service (SaaS) subscription, our solution utilizes overhead cameras and computer vision. Unlike other solutions, ours does not require weighted shelf systems.

The solution includes:

- **Autonomous checkout**
 - Overhead cameras
 - Computer-vision application
 - Contactless entry and exit system³
 - Application programming interfaces (APIs) to integrate with retailer point-of-sale (POS) applications
 - Hardware (routers/switches/server)
- **Inventory management**
 - Track and monitor inventory
 - Collect data on buying patterns
 - Receive inventory alert notifications
 - Leverage data to find the optimal mix of SKUs for your location

Deployment possibilities for 5G Edge Cashierless Checkout³

We can help you decide which deployment option is best for your business model and needs, based on Verizon trials with early adopters.



Create a new store.

Set up, deploy and monetize a new autonomous shopping experience.



Transform a store.

Add automation to an existing store location.



Deploy a mobile pop-up store.

Add a fully assembled, autonomous store location.

Why Verizon? The power of 5G.

When connected to 5G you can leverage the ultra-high speeds, low latency, advanced security and massive capacity you need to transform the retail experience by leveraging America's most reliable 5G network.⁵

With our award-winning networks, expertise and unique capabilities, we look forward to partnering with you to transform your retail infrastructure and venue experience capabilities in ways that help delight your customers.

Learn more:

To find out how 5G Edge Cashierless Checkout can help your business operate more efficiently and provide better service, contact your Verizon Business Account Manager.



1. 5G/Connectivity services are sold separately.

2. Shopper registration required to receive a digital receipt.

3. Retailer is solely responsible for construction/store deployment and for obtaining credit card readers and all credit card vendors.

4. IDC Innovators: Computer Vision for Automated Checkout and Self-Checkout, 2023, IDC #US47252721, Sept 2023

5. Most reliable 5G network based on more first place rankings in RootMetrics® 5G data reliability assessments of 125 metro markets conducted in 2H 2023. Tested with best commercially available smartphones on three national mobile networks across all available network types. Your experiences may vary. RootMetrics rankings are not an endorsement of Verizon.