

The Case for Smarter Grocery Stores

How innovation and automation are redefining the physical store



What is a 'smarter' grocery store?

It's been more than 10 years since the 'retail apocalypse' when the physical store was expected to die in the face of e-commerce. During the past few years, e-commerce exploded due to closures and stay-at-home orders, reaching upwards of [26% growth](#). And yet, here we are in 2022 where [stores are opening at double the rate of store closings](#), even after the unprecedented disruption retailers faced due to COVID-19. Retail is as strong, if not stronger, than ever. Physical stores aren't going away, they're evolving to become a strategic part of every retailer's omni-channel value proposition. Stores are becoming fulfillment centers, experience centers, customer service centers, and even educational centers that enhance and support online shopping. As shopping journeys become more complex, stores must evolve to become smarter, more efficient and more agile to keep up with growing expectations.

A smarter store is one that leverages technology to elevate in-store experience for shoppers and associates alike. This means deploying technologies that create more engaging and enjoyable experiences for customers that cannot be replicated online. It also means automating everyday tasks to

improve efficiency and accuracy, reduce operational costs and make work more interesting for employees.

Blue Yonder helps grocery retailers automate what's tedious in order to focus resources towards optimizing what's most important. We help you make the most of your most valuable resources — labor and inventory. Optimized scheduling helps make sure the right staff is always available to meet the need, with directed tasking to ensure work gets done properly and on-time. Daily operations such as ordering, counting inventory, updating planograms, picking online orders, or discounting perishables to sell through, are conducted with the help of automation and exception-based management. Employees are empowered with mobile workflows, making them more available to serve customers and more precise in their task execution. Plus, with the ability to align planograms, assortments and prices with local preference and buying behavior, we help maximize return on inventory investments and alignment with corporate strategy. These capabilities are synchronized through a single supply chain platform that delivers AI-driven insights and end-to-end visibility secured by Microsoft Azure™ with unlimited scalability to grow with your business.

Smarter stores have the following characteristics, each enabled with technology:



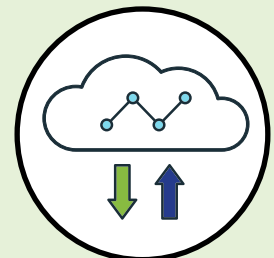
Customer-focused



Automated



Synchronized



Future-ready



A smarter grocery store is customer-focused

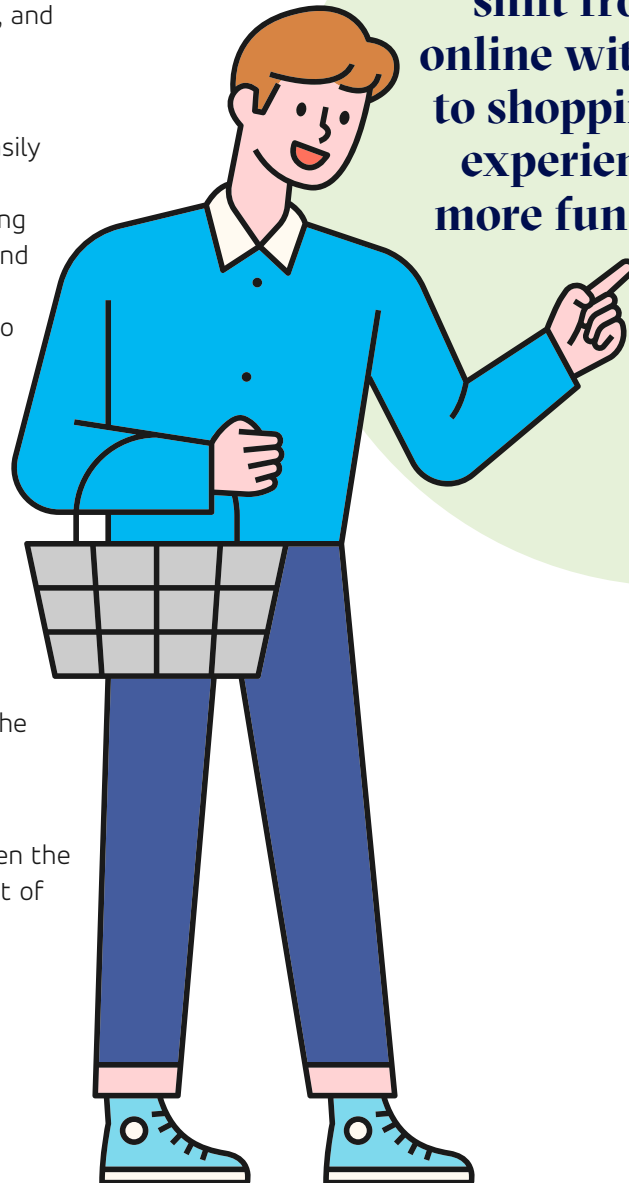


Retail has always been and will always be about the customer. It's important to know exactly what customers want and reliably meet or exceed expectations when it comes to in-store shopping. Customers today are far more digital savvy than ever before and can easily recognize inefficiencies in traditional selling models. During the first three months of the COVID-19 pandemic, customers adopted e-commerce at a pace equivalent to [10 years of growth](#). Even grocery shoppers have grown accustomed to getting whatever they want, whenever and however they want. Today's grocery stores must replicate these benefits while elevating the shopping experience, and this requires new technologies.

Customers want quick and convenient shopping experiences where they can easily find everything they're looking for. They expect the convenience of online shopping blended into their in-store experiences and to feel like visiting the store was worth the trip. Some customers shop in-store to buy the things they can't find online, such as locally-farmed produce or a brand new, limited-edition flavor of seltzer. So, it's very important to have assortments and prices precisely tailored to local preferences. Out-of-stocks and overcrowded shelves can have a negative impact on the customer experience and hurt revenues, because when shoppers can't find the items they're looking for, they often abandon the entire sale.

Customers expect flexible fulfillment. Depending on the shopping purpose, when the items are needed, the volume and weight of the purchase, and sometimes even the

weather, customers will have different preferences among in-store shopping, BOPIS (buy online, pickup in store), curbside, and delivery. A few years ago, it only mattered that grocers provided these options, but today each experience must be flawless. That's one reason it's so critical to have the right staff



56% of shoppers would shift from shopping online with a competitor to shopping in-store for experience that were more fun and engaging

CapGemini

A smarter grocery store is customer-focused



available to do this work, efficiently directed with mobile workflows to ensure everything order is processed accurately and ready when the customer arrives.

Customers expect value for their money, especially with [inflation at its highest level in 40 years](#). With low customer loyalty rates and growing competition across multiple retail segments, it's critical to ensure stores have the right mix of inventory in-stock and well-presented, no matter how buying behavior change. For example, if shoppers begin swapping out national brands for private label, stores must be able to quickly and efficiently update store-level planograms to keep up with changing demand. The speed of change in retail grocery is increasing. Some trends might come and go before grocers using traditional planning methods can respond, which will make them look out of touch. It's time for grocers to embrace artificial intelligence (AI) to drive these decisions and provide predictive insights into areas of opportunity that will bring benefits tomorrow.

Blue Yonder helps make grocery stores more customer-centric by giving grocers the tools to plan assortments, space, layouts, price and fulfillment options with the customer in mind. With our solutions you can easily generate and maintain responsive assortment and space plans, individually tailored to each store's specific constraints to minimize out-of-stocks and overstocks and make stores easier to shop.

Our order fulfillment capabilities can help create exceptional experiences for customers that prefer curbside, BOPIS or delivery. Mobile workflows guide store employees through each task within the fulfillment process to ensure every order is accurately picked and ready when the customer arrives. This helps improve the customer experience, increase associate productivity and reduce fulfillment costs.



A smarter grocery store is automated

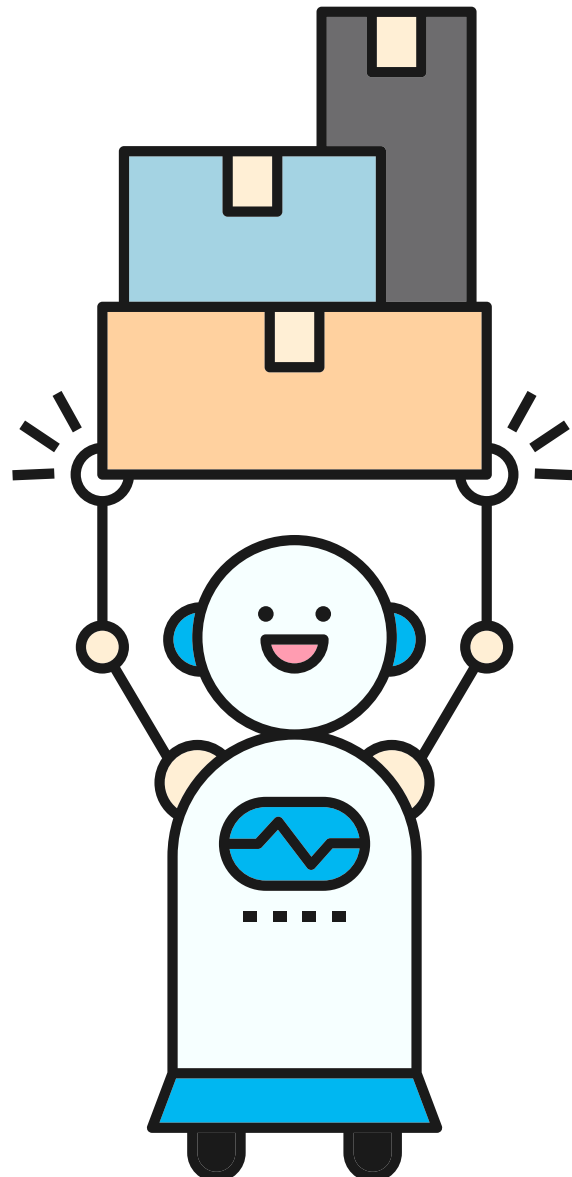


Consistently delivering exceptional customer experiences can require significant resources. In today's climate it's difficult to add resources, especially labor, so it's critical to optimize every other aspect of the grocery store. Store automation allows you to pull out resources from inefficient data collecting and repetitive tasks and reallocate them towards what matters most, like helping shoppers. Human interactions and personal connections have never been more important when it comes to building loyalty. Automation reduces the risk of manual errors and can make grocery stores more agile in responding to change. In fact, a recent study found store [automation can reduce operating costs by 9%](#).

Automation helps ease the pressures grocers are facing due to the global labor shortage or the new way that new generations engage with work. In recent months, this problem has grown to the extent that retailers of all kinds have [cut operating hours due to labor shortages](#). For the foreseeable future, retailers must do more with less, when it comes to labor resources. Traditional daily tasks such as receiving, verifying prices, counting inventory, ordering, and changing price tags can be extremely labor-intensive. There's significant savings to be gained by automating these operations, so your employees can focus on being your brand ambassadors and provide customers the engaging and unique experiences they expect. Automation also means management is freer to invest time building a sense of community among employees and helping to build engagement to reduce turnover.

Blue Yonder helps grocers streamline and automate daily store operations. Daily operations can be managed by exception using mobile tools that keep employees on the floor to serve customers, instead of stuck in a back office. Whether it's counting inventory, restocking shelves, picking orders, receiving inventory, or

placing orders, we help automate the basics and flag the anomalies to focus attention on what's urgent. This frees up resources away from the labor-intensive and mundane to focus on improving the precision of every task. With robust omni-channel order fulfillment capabilities, we simplify order management and direct associates to everything that needs to be done up until the order is picked up. Automation means less mistakes, less labor wasted and elevated customer experiences.



A smarter grocery store is automated



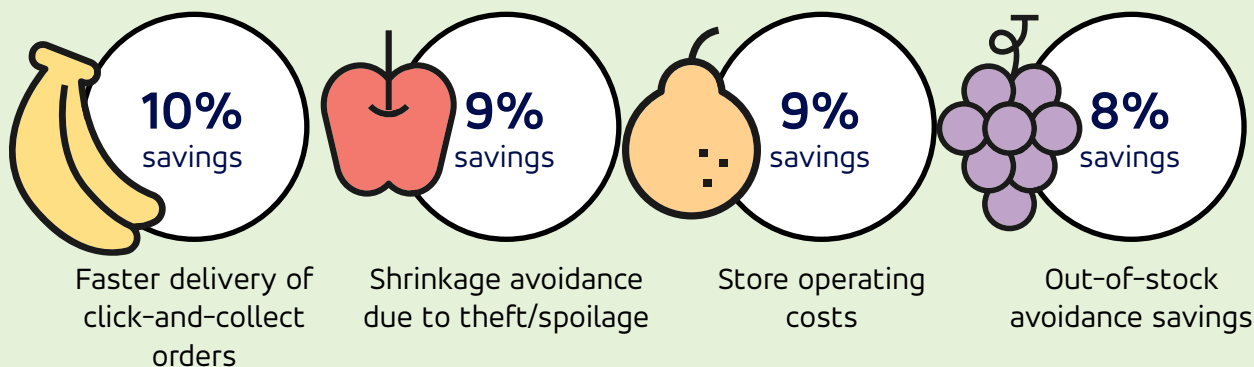
Blue Yonder's robust grocery operations capabilities put the power of the back office into a mobile app for employees to perform tasks while on the floor to better serve customers. We provide granular visibility and precise inventory management tools to make it easy to count and track items from receipt to the final sale, even for products used for ingredients or supplies. With this level of insight, your grocery stores become more agile and you can make better decisions that improve store performance. The benefits of store automation extend beyond cost savings for a retailer. A recent study found that customers shopped [11% more often and spent 10% more](#) at stores with automation versus stores lacking automation.

Blue Yonder takes the labor out of weekly labor scheduling and creates schedules that more closely align labor availability with labor needs. Our optimized scheduling looks at forecasted demand to determine exactly which skills are needed for every shift throughout the week and automatically produces schedules in compliance with labor regulations and aligned with business requirements. Then, our system takes it a step further and factors in every employee's unique work preferences. Employees can choose

preferred job role, shift duration, preferred day off, and more, and this data is fed into the scheduling engine to produce a schedule that helps employees get exactly what they want and the store what it needs. Employees are also empowered to swap shifts, request time off and pick up additional shifts, giving them flexibility and a positive work/life balance that reduces turnover. [94% of retailers are having trouble filling open positions](#), so anything that helps retain existing employees is essential.

When it comes to fresh foods, we take the guesswork out of setting store-specific clearance prices to sell through on-hand short code inventory and perishables to reduce waste more profitably. Instead of manually setting these prices and risking margin erosion or excessive throwaways, our AI calculates the best item-store-time-of-day prices to minimize the risk of both. For every item and grocery store, our system looks at price elasticities, on-hand inventory and other factors to update prices in real time based on predefined markdown strategies, giving stores flexibility in markdown pricing to accommodate in-store disruption.

Cost savings achieved through in-store automation



A smarter grocery store is synchronized

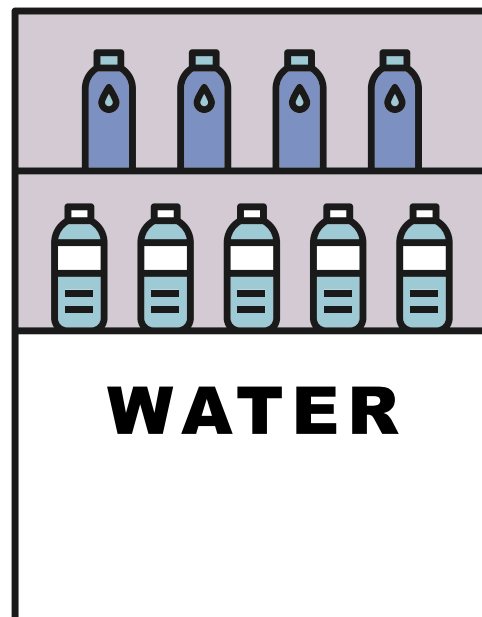


Providing exceptional in-store experiences and efficient grocery store operations begins with an optimized supply chain. This means breaking down the silos of yesterday and instead connecting planning and execution into a seamless and automated workflow with end-to-end visibility from the warehouse to the final sale. Artificial intelligence (AI) is a key component to this approach, providing the insights and prescriptive solutions to help grocers easily pivot when conditions change. Today's retail environment is all about effectively managing change, whether it's demand swings, an evolving labor pool, or the next product shortage. Synchronized planning helps grocers ensure that stores run their best day in, day out and that there's a plan in place for whatever tomorrow brings.

When it comes to having the right products with the right quantity in the right place at the right price, it's essential to have an accurate view of demand and a clear understanding of

what drives shopping behavior. Store-level assortments localized to shopper preference with prices based upon local markets is just the start. Space plans must also be carefully configured to take advantage of every inch of available shelf and display space, customized to every store. It's equally important that plans align with available labor to minimize disruption and ensure executability. With a synchronized approach, planners can generate demand-aware, space-aware and labor-aware plans that are easily implemented in-store. Once in place, ongoing monitoring of item performance allows managers to make decisions as soon as a change is identified, or an anomaly detected. This leads to smaller and more frequent item resets and more strategic price changes, both of which can result in an overall uplift in inventory efficiency.

For the highest level of customer service, the right employees must be trained and available to help — whether it be at the POS, picking an online order, restocking a shelf, or assisting a shopper. And while it's important to understand what skills are needed for every shift across every store, it's equally important that employees feel empowered



A smarter grocery store is synchronized

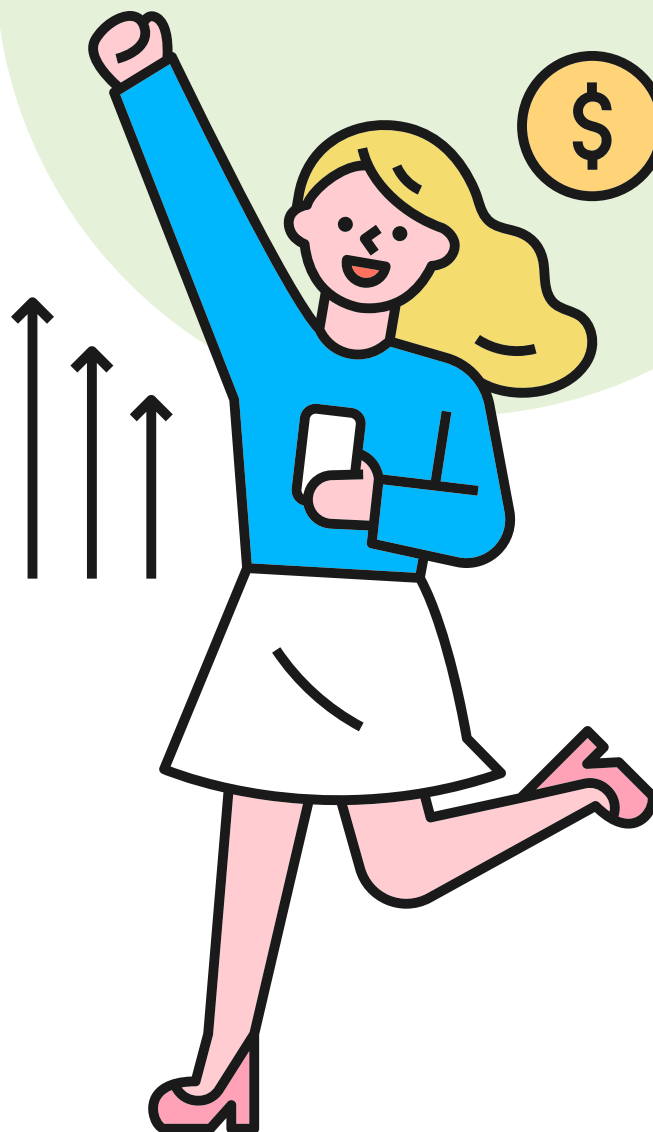


and happy with their schedules. Providing flexible schedules where associates can swap shifts, prioritize days off and job roles, or even self-select their own hours can raise morale and reduce turnover. When it comes to understanding future labor needs, this requires planning for the future while managing in the moment, a delicate balance. Strategic workforce planning is key — understanding and responding to future labor needs for every job function and every location based on corporate budgets and identifying recruitment and cross-training opportunities.

Blue Yonder’s AI-powered supply chain platform helps retailers navigate today’s unpredictable market that includes resource volatility, supply chain disruptions and demand swings, and it helps build the resiliency needed to optimize business outcomes. By automating and connecting daily decisions, task execution and disruption handling, Blue Yonder helps retailers operate every aspect of their business in a more agile and efficient manner, including the store. With every new data input or event, the supply chain becomes smarter, constantly improving business outcomes down to the shelf edge.

**88% of retailers list
“digital acceleration” as
a key investment priority**

Deloitte



A smarter, future-ready grocery store



There's little value in buying technology today that isn't capable of meeting tomorrow's requirements. That's why it's so important to invest in intelligent and open systems that can extend, scale and grow with your business. The evolution from investing in expensive, custom system integrations to APIs has dramatically increased the speed of digital transformation. With APIs, grocery retailers can test and deploy new capabilities faster and at a lower cost. APIs allow businesses to connect to partner applications easily so that cutting-edge technology can be shared through digital marketplaces. [52% of retailers see APIs helping to accelerate innovation](#) and allowing them to leverage new capabilities at scale. Blue Yonder's solutions have an API-first methodology to help grocers increase their speed of transformation, so they are ready to connect with any new innovation whenever it becomes available.

Investing in a SaaS-based, cloud approach yields many benefits, including greater scalability, reliability and security than traditional on-premise systems. SaaS also means less of a burden on your IT staff in terms of maintenance, updates and store-level deployments. You can reallocate these critical IT resources towards innovation and away from tasks that bring little strategic value. Plus, it creates a simpler path towards innovation to test and deploy new technologies faster, and with less risk. SaaS also helps retailers innovate by freeing up cash flow away from large, sporadic capital expenses and allows businesses to only pay for the product while using it. Services can be upgraded or downgraded based on capacity needs. While industries such as retail were initially hesitant to adopt cloud, only [32% of enterprise applications will run on traditional servers](#) this year — half of what it was in 2019.

Exceptional shopping experiences, an empowered workforce, a precise execution, and efficiency that runs from the store through every step of the supply chain — all this is powered by The Blue Yonder Luminate supply chain platform. Our platform hosts 550+ cloud customers, 55+ partners and supports more than 2,200 APIs. Luminate Platform leverages AI & ML capabilities and single-source data infrastructure, allowing simplified app consumption across the network. It's the one platform that eliminates workstream siloes and provides real-time, end-to-end orchestration of synchronized data across all solutions.



A smarter, future-ready grocery store



An innovative edge for the grocery store:

Blue Yonder's native integrations to Panasonic's smart edge technologies further extend the capabilities of the smarter grocery store. Electronic shelf labels (ESLs), smart cameras, AI-powered sensors and more can create innovative shopping experiences and redefine traditional store operations.

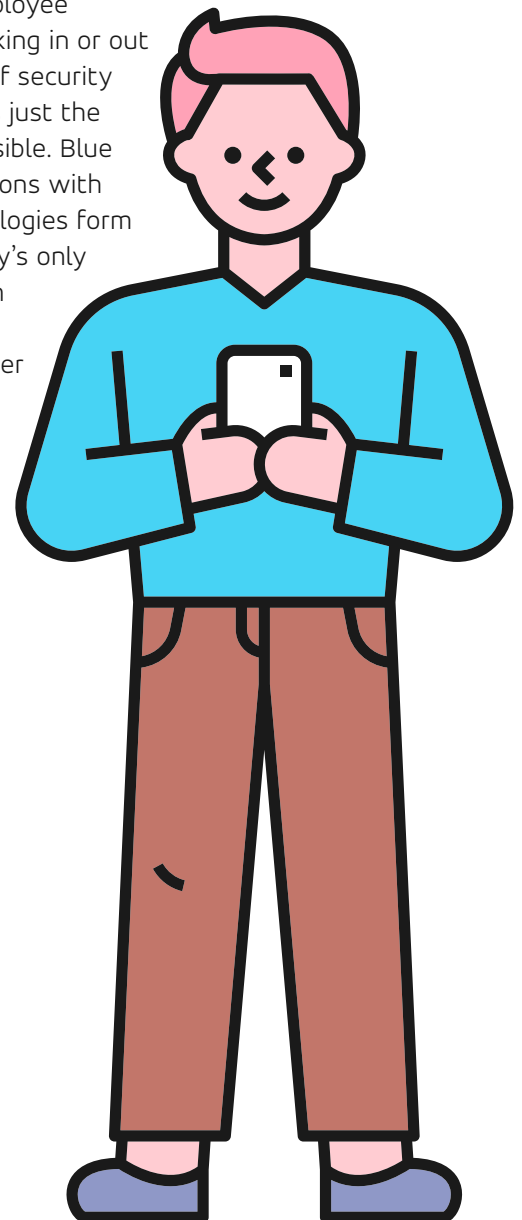
Electronic shelf labels can update regular prices or execute promotions across thousands of items with no manual intervention, eliminating the significant labor and associated resources required for retagging items individually. ESLs can also be used to guide in-store picking of online orders to streamline online order fulfillment. The ESL market, which has seen slow growth in the past 20+ years, is now expected to grow at a [CAGR \(compound annual growth rate\) of 24% through 2027.](#)

Facial recognition technology can be used for customer-facing and employee-facing purposes. This technology allows for biometric identification of individuals with a zero-touch approach, so COVID-19 was a driving factor for recent market adoption. Loyal customers can be identified as they enter the store, or when they begin refueling their car, to provide a higher level of service throughout their shopping experience, not just as they finalize their sale at the POS.

Smart cameras have multiple uses throughout the store, not just for fraud detection. Cameras can be used along with machine learning to monitor foot traffic in real time to identify store hot spots or shopping bottlenecks. With Panasonic's flowline analysis, employees can be notified when queues are building at the checkout to better

serve customers and improve the overall shopping experience. Or, for customers who opt in, these cameras can identify license plates as customers pull into curbside pickup to expedite order fulfillment.

As new businesses cases form and new technologies come to market, smart edge technologies will continue to transform the stores. For example, smart shelf sensors can monitor temperatures in perishable departments and trigger automated alerts if there's a problem. Facial recognition can also automatically verify employee identification when clocking in or out of work, adding a level of security to the audit trail. This is just the beginning of what's possible. Blue Yonder's native integrations with Panasonic's edge technologies form the basis for the industry's only edge-aware supply chain platform that helps retailers achieve a smarter grocery store.



Blue Yonder's smarter store technologies



Strategic Workforce Planning

Blue Yonder helps reduce turnover by giving employees more control over their schedules for better work/life balance. Automated scheduling optimizes labor resources to ensure there's always the right staff available to meet demand at a lower cost to serve.

Reduce labor costs by 5%

Order Fulfillment

Blue Yonder's order fulfillment capabilities empower retailers to leverage store inventory to fulfill online orders to enable BOPIS and curbside pickup. Streamlined workflows, automated alerts and guided picking help ensure orders are accurate and on time.

Reduce fulfillment costs up to 20%

Store Operations

Blue Yonder provides complete back-office capabilities with mobile tools that guide employees to be more efficient. Retailers achieve visibility and control over every aspect of the business, including intelligent ordering, inventory management and other daily tasks.

Reduce on-hand inventory 5–10%

Automated Fresh Pricing

Blue Yonder helps retailers optimize fresh food markdown performance and reduce waste. AI-powered algorithms determine the best price to sell through short coded products based on local buying behaviors, on-hand inventory and other factors, and allow managers to update prices immediately.

Increase margins 0.25 — 3%

Supply Chain Platform

Blue Yonder enables end-to-end visibility and synchronization across the supply chain, from the warehouse to the final sale. This allows retailers to adapt to demand surges, growing e-commerce, resource volatility, and changing customer demand with an orchestrated approach that delivers the most value.

Driving 75B AI transactions a month

Edge Technologies

Native integration with Panasonic's edge technologies help improve productivity while modernizing the store. Price changes without labor, out-of-stock detection, and planogram compliance are just the beginning of how Blue Yonder and Panasonic are helping retailers create smarter stores.

Repurpose labor to more strategic tasks

Smarter grocery stores with Blue Yonder

It's estimated that [local stores are involved with 90% of all retail sales](#), and at least [72% of U.S. retail sales will occur in brick-and-mortar stores through 2024](#). It's unlikely for this percentage to drop much lower over the next 10 years. Customers rely on physical grocery stores for personalized service, experiences that can't be replicated online, and to research and touch, shop for and return goods. They expect more than ever before, which is why technology is such a strategic part of today's physical store. Grocery retailers must continue to invest in making stores more strategic extensions of their brand, even while e-commerce continues to grow. The best way is through digital transformation, where future-proof IT investments are made for competitive advantages and superior customer experiences, not simply cost savings initiatives. These investments create smarter stores, which are customer-focused, automated, synchronized and future-ready. And that's exactly what customers expect today and will demand tomorrow.

Blue Yonder's innovations help grocery retailers on their path toward the smarter store. Delivering increased efficiency through automation, we help you make the most of store resources to run daily operations at the lowest cost possible. We help optimize labor resources with dynamic tasking and automated scheduling and provide the AI-driven insights to create exceptional experiences for your customers. And we do this with an open and agile approach to technology so your IT investments today will serve you tomorrow as your grocery stores continue to adapt and grow.



Customer Benefits

- Always have employees available to help
- Better curbside and BOPIS experiences
- More engaging store experiences
- Always finding what they want
- More options in how to shop
- Exceptional customer service

Retailer Benefits

- Reduced turnover with more empowered workforce
- Associates have more interesting work to do
- More accurate and efficient operations
- Higher revenues with better margins
- More efficient workforce
- More productive inventory



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