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GROCERY & CONVENIENCE

State of the industry

The modern grocery supply chain

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- Grocery retail is being squeezed from all angles, with margins under increasing pressure, and its supply chain in urgent need of modernization.

Inflation, tariffs, oil & gas prices, supply volatility, labor shortages, and regulatory shifts are all conspiring to disrupt operations and force sudden pivots.

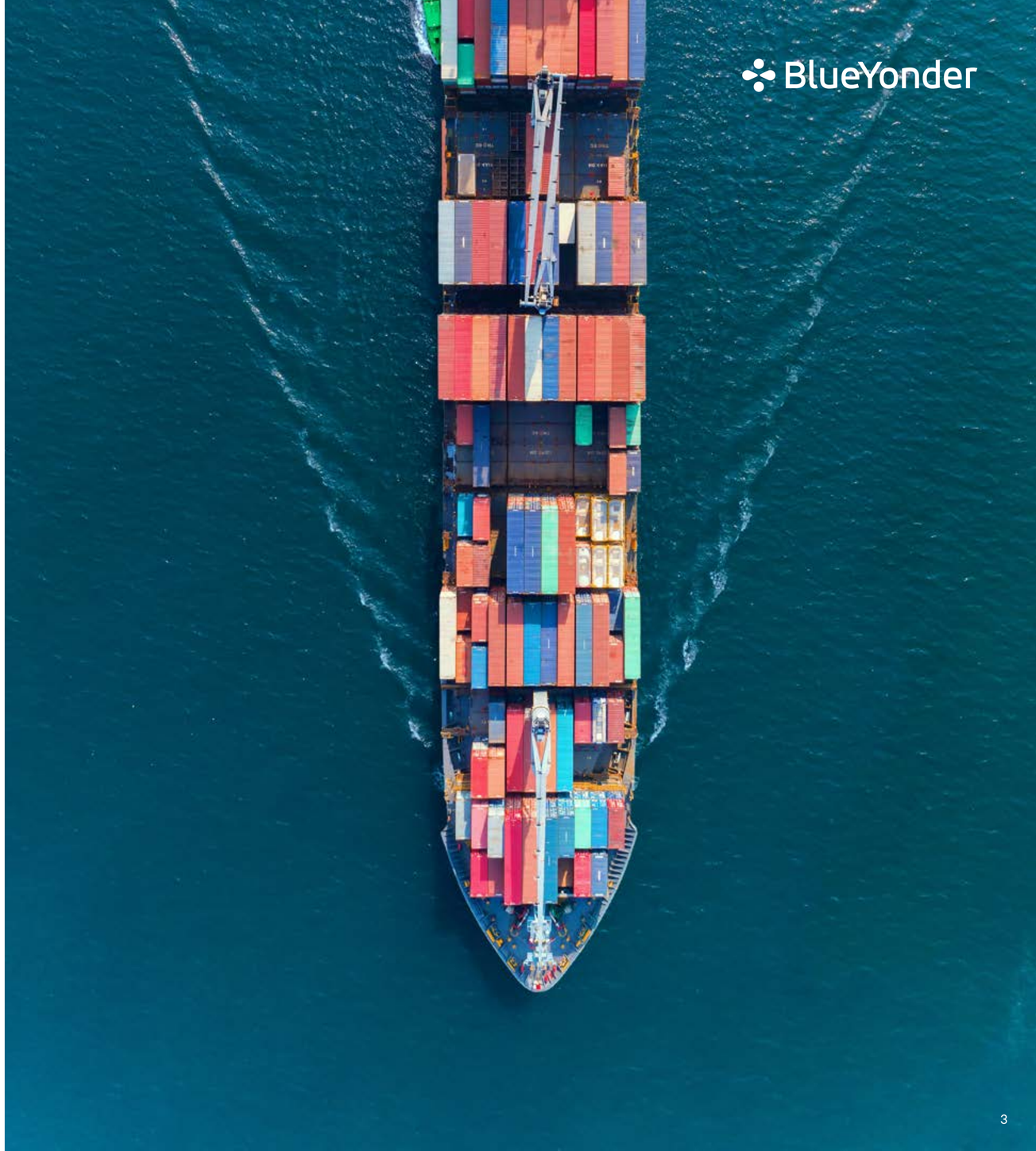
And it's not just macro conditions that are changing. Shopper preferences are changing too, and create uncertainty across physical and online channels, while also impacting basket sizes.

In the past year, for example, the shift toward fresh and prepared perimeter categories, which carry higher shrink and labor cost, has reshaped many grocers' operations. Shoppers are also splitting trips across more banners: **NIQ found 34% are shopping discount stores more often and 39% have traded down on CPG brands.**

Decision makers are facing a battle to maintain product freshness, find the perfect balance between availability and waste, improve inventory and demand forecasting accuracy, provide transparency and synchronization with stakeholders, and to proactively mitigate all the above disruptions. The result is often a hit on already-thin profit margins.

The growing volatility and complexity of grocery retail demand a fundamental rethink of how retailers leverage technology, including AI, to overcome operational challenges, strengthen resilience, and gain a competitive advantage.

This eBook is designed to serve as a strategic roadmap from diagnosis to modernization to help grocers unlock greater speed, transparency, and efficiency by unifying supply chain data in a single, cloud-based source of truth.





Identifying the gaps in today's grocery supply chain

To build a more resilient and agile supply chain, grocers must first address the operational limitations holding them back. Despite advances in supply chain technology, many retailers still rely on legacy systems characterized by siloed data and disconnected planning and execution processes. While these systems may have supported operations in the past, they are increasingly ill-equipped to meet today's demands for speed, visibility, and flexibility.

These gaps become particularly costly when disruption strikes.

In a market where $562 billion is lost globally each year due to overstock-driven markdowns or spoilage, grocers need to transform their operations to improve efficiency and sustainability across the supply chain.[1]

According to FMI–The Food Industry Association, two-thirds of food retailers reported negative business impacts from supply chain challenges in 2025, while industry profit margins remained at just 2.1%.[2] Without a unified view of inventory, demand, and operations, grocers struggle to anticipate shortages, respond to demand fluctuations, and coordinate decisions across suppliers, distribution centers, and stores.

The gap between technology adoption and measurable impact remains significant: McKinsey's State of Grocery Retail Europe 2026 report found that 47% of surveyed grocery CEOs ranked AI and automation among their top three priorities, yet 70% reported no measurable EBIT impact from AI so far or said it was too early to tell.

47%

Of grocery CEOs rank AI and automation among their top three priorities

70%

Report no measurable EBIT impact from AI yet, or say it is too early to tell

For grocers, the pressure is on to turn technology investments into improved inventory visibility, greater product availability, and operational efficiencies that deliver measurable results today and sustained ROI over the long term.[3]

So, where should the focus be instead?

A modern grocery supply chain changes this equation. By connecting data, planning, and execution through a unified, cloud-based platform, grocers can gain end-to-end visibility, synchronize decisions in real time, and leverage AI-driven insights to anticipate disruptions and respond faster.

5 Benefits of a modern supply chain

"How quickly can your software tell you where your product is?"

If the answer is measured in days rather than seconds, it's time to rethink your approach. Supply chain technology has advanced rapidly, and real-time visibility is now a necessity.

What supply chain networks should look like is a complete unification of data streams on a single platform, minimized manual handoffs, and true end-to-end management from supplier to shelf, turning supply chain capabilities into 5 clear business outcomes:



Improve forecast accuracy and inventory productivity.



Increase agility and speed to execution



Expand margins through end-to-end optimization



Protect sales and strengthen customer loyalty



Build a scalable foundation for profitable growth

01

Improve forecast accuracy and inventory productivity

AI-driven demand forecasting enables grocers to anticipate shifts in consumer demand at a more granular level, accounting for promotions, seasonality, weather, and store-level buying patterns. Better forecast accuracy supports higher on-shelf availability, more efficient inventory deployment, and reduced markdowns and shrink, freeing up working capital without compromising service levels.

For example, with more precise demand forecasting and replenishment, Blue Yonder grocery customers have seen up to 30% improvement in on-shelf availability.

Alnatura connected category management and space planning on one platform and reported a 6% reduction in out-of-stocks, a 29% reduction in overstocks, and a 4% increase in fresh revenue.

AT A GLANCE:

30%
Improvement in on-shelf availability

6%
Reduction in out-of-stocks

29%
Reduction in overstocks

+4%
Increase in fresh revenue





02

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Increase agility and speed to execution

When demand shifts or supply disruptions occur, the ability to respond quickly can determine the impact on sales and profitability. Connected planning and execution allow grocers to evaluate scenarios, rebalance inventory, and align replenishment and distribution decisions across their networks, reducing the time between identifying a disruption and taking corrective action.

Consider an unexpected surge in demand for fresh produce ahead of a holiday weekend, or a delayed delivery of perishable products. Rather than reacting to empty shelves or excess inventory, grocers can identify potential stockouts early, dynamically adjust demand forecasts and replenishment plans, and coordinate inventory transfers or alternative sourcing across distribution centers and stores. The result is better on-shelf availability, reduced food waste, and greater protection of margins.

03

Expand margins through end-to-end optimization

With labor, transportation, energy, and inventory costs under constant pressure, incremental efficiencies can have a meaningful impact on profitability. Unified data and AI-driven optimization help grocers improve inventory turns, increase distribution efficiency, reduce waste, and optimize resource allocation across stores and distribution centers.





04

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Protect sales and strengthen customer loyalty

Product availability and freshness are fundamental to grocery retail performance. By improving forecast accuracy, replenishment, and inventory visibility, grocers can reduce lost sales from out-of-stocks, maintain consistent service levels, and deliver a more reliable shopping experience. The result is stronger customer retention, basket performance, and long-term revenue potential.

05

Build a scalable foundation for profitable growth

Modern, cloud-based supply chain platforms give grocers the flexibility to expand store networks, integrate new channels, and adapt to evolving business models without adding proportional operational complexity. A connected technology foundation also enables continuous innovation, allowing retailers to adopt new AI capabilities and respond to changing market conditions without repeatedly overhauling their core systems.

Simon Roberts, CEO of Sainsbury's, shared an ambitious goal: to make good food joyful, accessible, and affordable. To accomplish this, the team invested in technology built to reduce waste, improve accuracy and availability, and simplify operations for team members. As Roberts said, "Not because using new tech was a goal, but because of the powerful outcomes we wanted to drive. Better availability, lower waste, simpler processes for colleagues, better partnering with suppliers, and, most importantly, to show up brilliantly for our customers every day." [4]





Blue Yonder's blueprint: Architecting the modern grocery supply chain

Shoppers expect the same product, price and availability whether they order online, pick up curbside or walk the aisle, and value remains the defining theme heading into the holiday season.[5]

What if a change in demand at the store level could trigger real-time, coordinated decisions across replenishment, inventory, warehousing, and transportation, without waiting for disconnected teams to catch up?

Grocers can't control market shifts or shopper expectations, but they can control how quickly and how effectively they respond to both.

This is the shift Blue Yonder is enabling through its cognitive solutions. Built on a common cloud-native platform and powered by AI, machine learning, and a unified data foundation, Blue Yonder connects supply chain planning and execution to help grocery and convenience retailers move beyond fragmented operations toward intelligent, synchronized decision-making.[6]



One connected data foundation.
One shared view of the supply chain.

A modern grocery supply chain starts with connected data. The Blue Yonder Platform and its Snowflake-powered Platform Data Cloud unify information across demand planning, inventory, replenishment, warehousing, transportation, and the extended supply chain. For a grocery retailer managing thousands of SKUs across multiple distribution centers, store formats, and fulfillment channels, this means decisions can be based on a more consistent view of demand, inventory availability, and operational constraints.[6]

Sainsbury's reduced waste at scale through accurate ordering and allocation that drove 150,000 fewer disposals and 800,000 fewer markdowns during their peak in 2025. Greater resilience came from reducing operational incidents and reliance on contingency measures, while using simulation to de-risk key trading events such as Christmas.[4]

AT A GLANCE:

150K

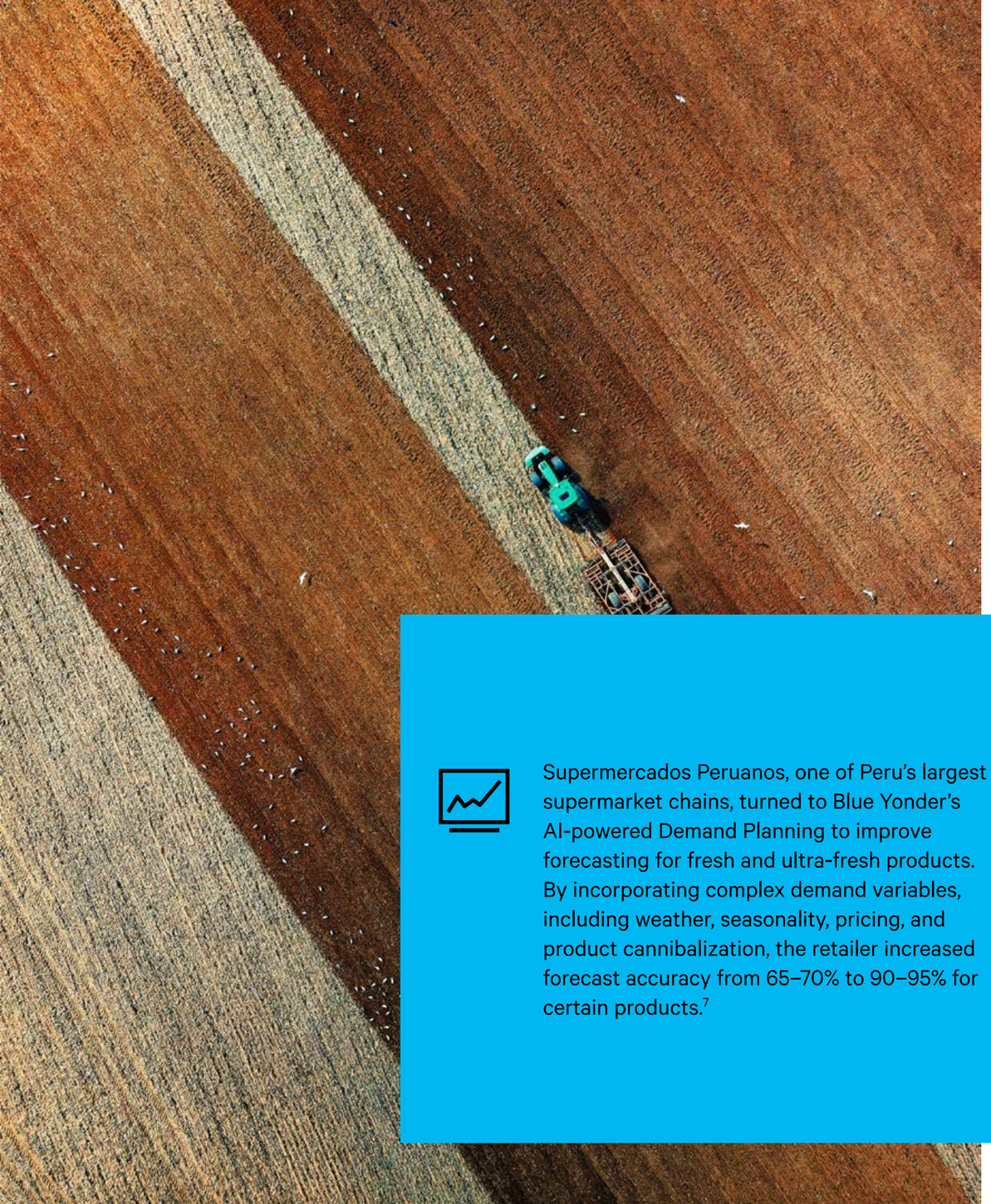
Fewer disposals at Sainsbury's during its 2025 peak

800K

Fewer markdowns at Sainsbury's during its 2025 peak

6

Supply chain areas connected through one data foundation



From reactive planning to AI-driven decision intelligence

Blue Yonder's cognitive solutions embed AI and machine learning into supply chain decision-making, helping grocers anticipate demand changes, evaluate scenarios, and determine the most effective course of action.

Consider a grocery chain preparing for a heatwave. AI-driven forecasting can help identify increased demand for beverages, ice cream, and other weather-sensitive categories at a local level. By factoring in available inventory and supply constraints, planners can evaluate replenishment requirements and potential shortages before demand peaks.

Supermercados Peruanos, one of Peru's largest supermarket chains, turned to Blue Yonder's AI-powered Demand Planning to improve forecasting for fresh and ultra-fresh products. By incorporating complex demand variables, including weather, seasonality, pricing, and product cannibalization, the retailer increased forecast accuracy from 65–70% to 90–95% for certain products.[7]

AT A GLANCE:

+90%

Forecast accuracy achieved for certain fresh products

+25pp

Approximate improvement in forecast accuracy

4

Key demand factors considered in AI-powered forecasting

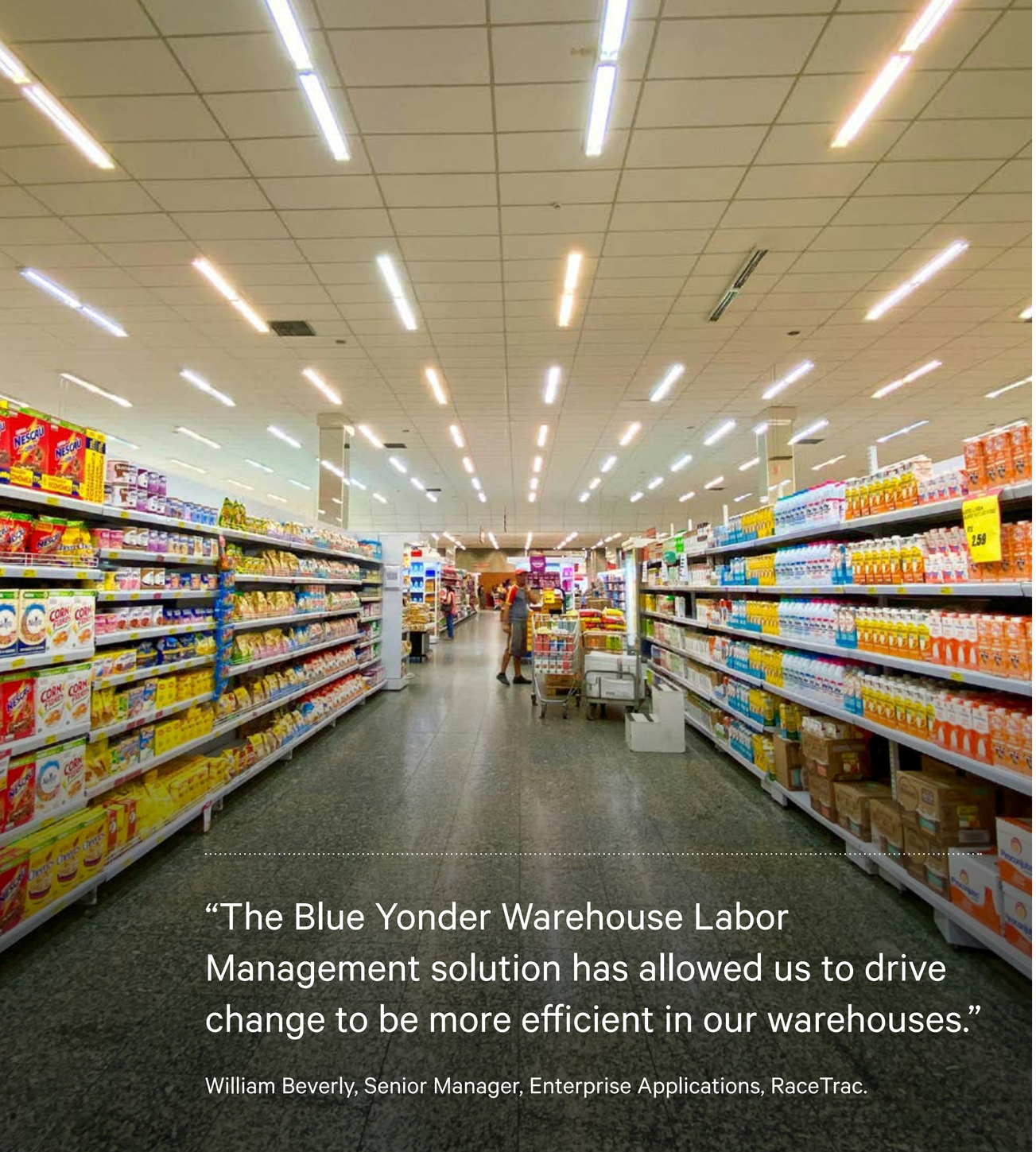
Cloud-native architecture designed to scale

Modernization also requires a technology foundation that can evolve with the business. The Blue Yonder Platform's cloud-native architecture supports scalability, interoperability, and continuous innovation, while enabling integration with existing enterprise applications through common APIs.[8]

To increase supply chain agility and scalability, Marks & Spencer migrated its Blue Yonder Demand Planning and Fulfillment Planning solutions to a cloud-based SaaS model, delivered with Tata Consultancy Services and Microsoft, supporting a retail network of nearly 1,000 stores.

With AI and machine learning embedded across the platform, retailers can progressively adopt new capabilities and advance toward more autonomous, intelligent supply chain operations.





“The Blue Yonder Warehouse Labor Management solution has allowed us to drive change to be more efficient in our warehouses.”

William Beverly, Senior Manager, Enterprise Applications, RaceTrac.

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Full visibility across your supply chain, from supplier to shelf

In grocery retail, disconnected systems and multiple handoffs between suppliers, distribution centers, transport partners, and stores create information gaps that compromise product freshness, delay store replenishment, generate food waste, underutilize warehouse and transport capacity, cause unnecessary CO_2 emissions, and lead to inefficient labor allocation. Blue Yonder helps grocery retailers overcome these challenges by connecting planning, warehousing, transportation, and store operations through a unified supply chain network.

Convenience retailers feel the same gaps in a sharper form: small-format stores replenished several times a week, fast-growing foodservice and fresh prepared categories, direct-store deliveries that bypass the distribution center, fuel-margin swings, and thin store labor. The planning and execution flow must work at that cadence, which is why warehouse and labor execution matter as much as the forecast.

RaceTrac, which operates more than 850 RaceTrac and RaceWay convenience stores from four distribution centers, implemented Blue Yonder Warehouse Management and Warehouse Labor Management and reduced warehouse workflow change turnaround times from approximately 30 days to about one week, streamlining replenishment and shipping processes and improving labor planning.

AT A GLANCE:

+850

RaceTrac and RaceWay convenience stores supported

77%

Reduction in warehouse workflow change turnaround time

7 days

Warehouse workflow change turnaround time, reduced from approximately 30 days.

Praised by customers, recognized by trusted analyst firms

Blue Yonder was named a Leader in Gartner ® Magic Quadrant reports covering Supply Chain Planning: Discrete Industries, Transportation Management Systems, Warehouse Management Systems and Supply Chain Management Suites.[9] IDC has recognized Blue Yonder as a Leader in eleven 2026 IDC MarketScape Vendor assessments.[10] Nucleus Research has positioned Blue Yonder as a Leader in the 2026 OMS Technology, Enterprise SCP Technology, Control Tower Technology, WMS andTMS Technology Value Matrix reports.

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Your grocery supply chain modernization starts here

We believe industry research and analyst reports confirm that supply chain modernization is already underway, with the technology and capabilities needed, available today.

It all starts with identifying where gaps in your grocery supply chain are holding back performance and modernization. Understanding these limitations is the first step toward building more agile, connected, and resilient operations.

Blue Yonder can help you assess your current capabilities, identify opportunities for improvement, and define a modernization roadmap aligned with your business priorities. For grocery retailers, this means turning market volatility into a measurable and scalable competitive advantage.

Find out more

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