



Manhattan Solutions for

# RETAIL GROCERY

# Executive summary

## CHALLENGES

Retail grocery companies are moving to a resilient and agile supply chain that ensures high performance in the face of ever-present supply chain pressures, including:

- › Handling increasing supply chain demands.
- › Minimizing out-of-stocks.
- › Managing a changing labor force.
- › Optimizing for freshness.
- › Executing to increase profitability.
- › Managing increasing sustainability demands.



## SOLUTIONS

Manhattan Associates enables grocers to solve any pressure and activate their resilient and agile supply chain with:

- › **Warehouse Management** that accelerates the flow of goods and information and enables flawless execution across inventory, labor, advanced automation, robotics, and physical space.
- › **Labor Optimization** that provides an integrated and mobile experience using data-driven gamification and real-time digital communication to self-motivate workers and incentivize employee performance.
- › **Slotting Optimization** that intelligently optimizes slotting moves and picking as part of overall distribution center management.
- › **Transportation Management** that enables faster, more capabilities for optimized planning, improving visibility, accelerating planning, and lowering costs.
- › **Inventory Optimization** that ensures critical items are available, providing complete inventory visibility supported by advanced demand forecasting.



## OUTCOMES

Retail grocery leaders have realized significant business outcomes with Manhattan solutions:

- › The Co-operative Group (UK) converted its worst-performing region in terms of on-shelf availability to one of its best.
- › Giant Eagle **increased productivity by 8% to 10%** in its health and beauty distribution centers (DCs) and 3% to 5% in other DCs.
- › Online grocer RedMart improved service levels (on-time in-full) to a **99%+ accuracy rate**.



From the warehouse to your customers, your supply chain must be ready to withstand any disruption and fulfill any demand. Manhattan solutions promote a resilient and agile grocery supply chain ready to overcome supply chain pressures and quickly enact change to meet new demands. Move your products more swiftly, safely, and efficiently with Manhattan.

### **Why Manhattan?**

- › Our deep understanding of the retail grocery supply chain improves your business outcomes
- › Our feature-rich solutions support your most sophisticated grocery supply chain requirements
- › Our cloud-native technology is proven to enable a truly resilient and agile supply chain

**Retail grocery leaders like Giant Eagle, The Co-operative Group, and Asda use Manhattan solutions to optimize their supply chain.**



## Focus on helping you overcome supply chain pressures

Industry leaders like you recognize that improving the resiliency and agility of their supply chain infrastructure is essential to business success. Forward-thinking companies are making supply chain improvements to minimize the effects of disruptions, be more responsive to change and demands, streamline business processes, and enhance human performance. Manhattan is ready to help you succeed in today's and tomorrow's challenging supply chain environment with solutions that address and overcome critical supply chain pressures like the following:





### HANDLING INCREASING SUPPLY CHAIN DEMANDS

Continued supply chain disruptions and new consumer demands will put greater pressure on the grocery supply chain to perform. For example, consultancy McKinsey & Company predicts consumers continue to consolidate their shopping trips, looking for their favorite grocery retailer to offer an expanded product set.<sup>1</sup> Grocers may respond by adding new product categories, which means the supply chain must adapt to new suppliers, different products, and greater volumes. Asda selected [Manhattan Active® Warehouse Management](#) to enable its operations to adapt to fluctuations and provide better choices and service options to its 18-plus million weekly customers.



### MINIMIZING OUT-OF-STOCKS

Grocery out-of-stocks are higher today at a 15% out-of-stock rate compared to the historical rate of 5% to 10%.<sup>2</sup> The risk of out-of-stocks is that shoppers turn to another store to purchase their desired items. Balancing inventory to prevent oversupply and understocks is a critical focus of grocery retailers, calling for more accurate and timely demand forecasting and precise stock handling in distribution centers. We worked with [The Co-Operative Group](#) to reinvent its distribution network and processes, greatly improving on-shelf availability.



### MANAGING A CHANGING LABOR FORCE

At the start of 2022, the grocery industry was missing around 120,000 workers.<sup>3</sup> This shortage applies to store personnel, warehouse workers, and truck drivers. Automation in warehouses and solutions that improve labor utilization in the warehouse and on the road will play a key role in protecting operations from labor shortages. Our customers like Giant Eagle and The Co-Operative Group have experienced significant productivity gains after implementing our [Warehouse Management](#) solution.



### OPTIMIZING FOR FRESHNESS

Consumer demand for fresh, ready-to-eat, and frozen products will continue to increase. But fresh product spoilage continues to be a problem for the industry, costing large grocers tens of millions of dollars per year and damaging margins.<sup>4</sup> This trend points to the need for grocers to have a strong freshness program that delivers on consumer needs while reducing costly spoilage. Our [Demand Forecasting](#) solution gives grocers precise visibility into fresh demand and stock, along with an optimized [Replenishment](#) solution that reduces carrying costs and limits unnecessary spoilage.



### EXECUTING TO INCREASE PROFITABILITY

The COVID-19 pandemic-driven surge in grocery demand created greater margin pressures as increased sales came with increased operating expenses. Now, rising inflation is driving new margin pressures.<sup>5</sup> With greater distribution efficiencies and accuracy, grocery companies can improve cost control that protects or improves margins. We implemented our [Transportation Management](#) solution for Giant Eagle, helping the company reduce transportation costs in multiple ways, such as increasing truck capacity utilization by 7%.



### MANAGING INCREASING SUSTAINABILITY DEMANDS

Environmental, social, and governance concerns are growing in importance for the industry.<sup>6</sup> We can accelerate your sustainability goals by enabling more efficient operations and solving climate and other environmental issues. We can help you strengthen [Inventory Management](#) and [Transportation Management](#) to reduce waste created by spoilage and to reduce shipments and, thus, carbon emissions.



## Built to help you improve supply chain performance

Realizing a resilient and agile supply means improving performance across your supply chain. We have designed and built our supply chain solutions to spur improvement in demand planning, warehouse operations, fulfillment, and transportation execution. Here are some of the many supply chain key performance indicators (KPIs) we keenly focus on to help our retail grocery customers improve and succeed:





### ON-TIME IN-FULL (OTIF)

Measures the number of cases delivered in full and on time as a percentage of all ordered cases – a key service level.

**OTIF = [(# cases delivered on time / # case orders) x (# case orders complete / # case orders)] x 100.**

Using our Warehouse Management solution, Giant Eagle **increased outbound order accuracy to 99.9%**.



### WAREHOUSE PRODUCTIVITY

Indicates productivity rate by which labor performs essential warehouse tasks (receiving, put-away, and picking/packing). Productivity is measured through several KPIs, such as

**Receiving Productivity: (total time for stock validation + total time to add stock to records + total time to prep stock for storage) / Hour.**

The Co-operative Group and Giant Eagle **increased warehouse productivity by 10%** after implementing our Warehouse Management capabilities.



### FUEL ECONOMY (MILES DRIVEN)

Measures total miles driven and corresponding fuel utilized over a period of time, indicating effectiveness of route optimization.

**Fuel economy = miles driven for period / fuel used for period.**

Giant Eagle **reduced miles driven by 7.7%** though improved route optimization enabled by our Transportation Management solution.





# KPIs where Manhattan has a significant impact.

## **Gross Margin Return on Investment**

Shows how much a grocery company made compared to how much it invested in stock purchases. Manhattan solutions that can improve this KPI: Warehouse Management, Labor Management, Transportation Management, Inventory Optimization

## **Customer Satisfaction Score**

Measures the level of customer satisfaction with grocery company's experience, such as fulfillment. Manhattan solutions that can improve this KPI: Inventory Optimization (Demand Forecasting and Replenishment), Warehouse Management, Transportation Management

## **Labor/Equipment Utilization**

Indicates the rate at which the workforce and equipment are utilized in the warehouse to fulfill orders. Manhattan solutions that can improve this KPI: Warehouse Management, Labor Management, Slotting Optimization, Transportation Management

## **Demand Forecast Accuracy**

Helps you measure the accuracy of forecasted demand against actual demand at an individual item level. Manhattan solutions that can improve this KPI: Demand Forecasting, Warehouse Management

## **Inventory Carrying Costs**

Indicates the total of all expenses related to storing unsold goods, including depreciation, opportunity cost, and warehousing. Manhattan solutions that can improve this KPI: Inventory Optimization (Demand Forecasting), Warehouse Management

## **Inventory Turnover / Days to Sell**

Shows the rate at which a grocery company replaces inventory in a period due to sales. Manhattan solutions that can improve this KPI: Inventory Optimization (Demand Forecasting and Replenishment)

## **Obsolete Stock / Spoilage**

Measures the amount of obsolete stock or spoiled inventory that cannot be sold (a critical indicator of supply chain viability). Manhattan solutions that can improve this KPI: Demand Forecasting, Warehouse Management

## **Order Cycle Times**

Assesses distribution efficiency in the elapsed time from the release of an order to a warehouse and when it is shipped. Manhattan solutions that can improve this KPI: Warehouse Management, Labor Management, Slotting Management

## **Truckload Capacity Utilization Rate (Cube)**

Measures truckload utilization and can indicate loading optimization problems that result in overspending. Manhattan solutions that can improve this KPI: Transportation Management

## **Tender Acceptance Rate**

Shows shipping tenders rejected versus accepted. A lower acceptance rate can lead to higher costs. Manhattan solutions that can improve this KPI: Transportation Management

## **Distribution Costs**

Measures all expenses involved in processing orders for distribution. Manhattan solutions that can improve this KPI: Warehouse Management, Slotting Management, Transportation Management

# How we help you succeed

## Manhattan Active® Supply Chain and Manhattan Active Inventory

Dogged disruptions, escalating customer expectations, and trying labor shortages force unprecedented pressures on today's retail grocery supply chain — strains that can break the supply chain. Poor on-shelf availability, dropping productivity, and escalating costs are some of the issues that degrade grocery performance and the shopper experience. Today's supply chain must become more resilient and agile, fending off disruptions and activating change to power growth and meet customers' needs.

The modern resilient and agile grocery supply chain is durably unified from order to delivery, providing crystal-clear visibility and unprecedented control from one end of the supply chain to the other. Architected for responsiveness, optimized for greater efficiencies, and aligned for joint automation and human effectiveness, Manhattan Active Supply Chain and Manhattan Active Inventory deliver the modern grocery supply chain that enables you to be always resilient and highly agile.

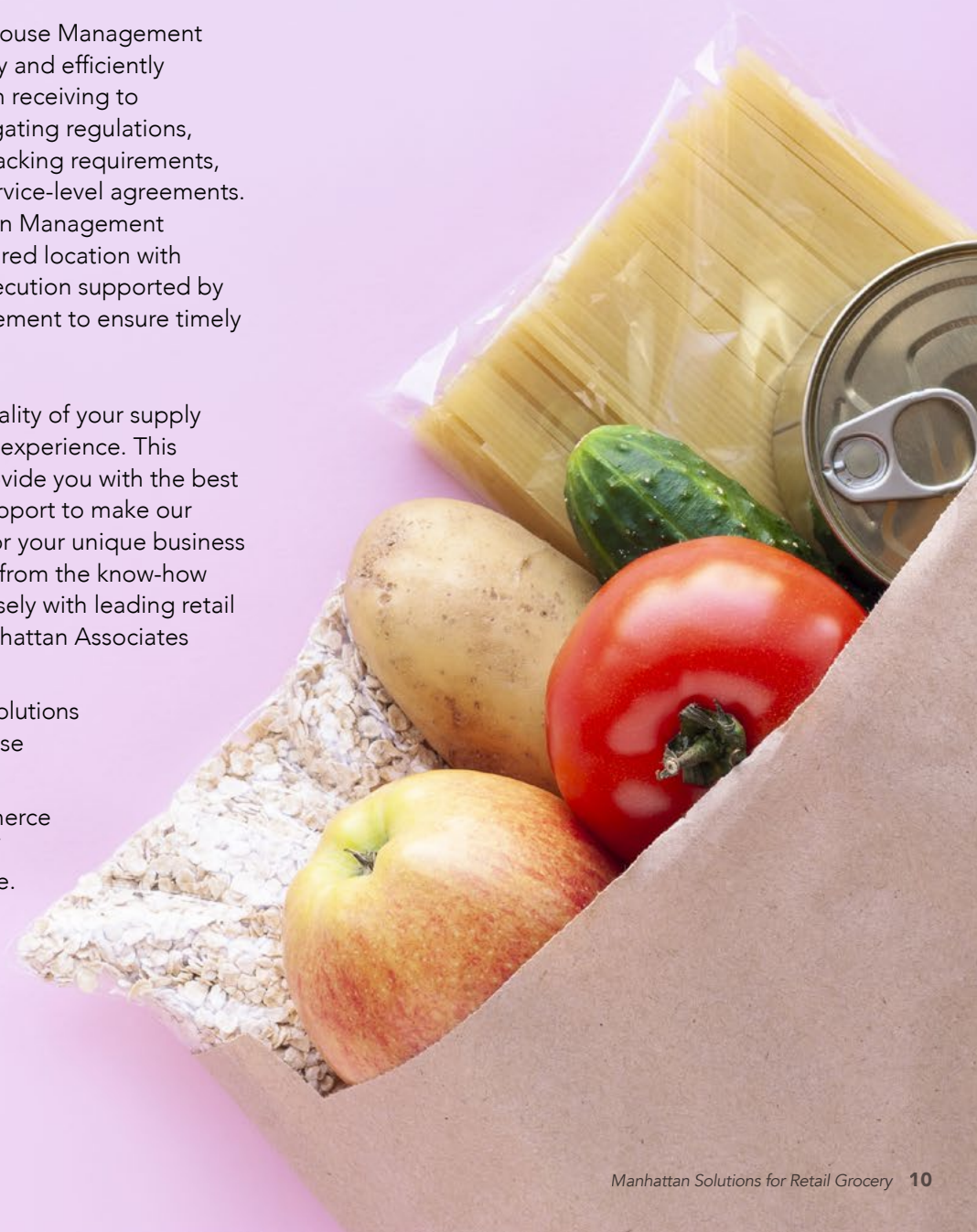
How does Manhattan help you optimize and succeed? Manhattan Active Inventory helps you ensure critical items are available for distribution, providing complete inventory visibility supported by advanced Demand Forecasting. Manhattan Active Supply Chain harmonizes distribution (warehouse operations) and transportation to achieve peak productivity and efficiency.

Manhattan Active Warehouse Management enables you to accurately and efficiently execute distribution from receiving to fulfillment, expertly navigating regulations, storage requirements, tracking requirements, labor challenges, and service-level agreements. Manhattan Transportation Management routes items to their desired location with precise planning and execution supported by optimized carrier engagement to ensure timely delivery at the best cost.

We understand the criticality of your supply chain to your customer's experience. This criticality drives us to provide you with the best experts, services, and support to make our leading solutions work for your unique business and processes. Matured from the know-how gained from working closely with leading retail grocery companies, Manhattan Associates provides the

- › Leading supply chain solutions
- › Experience and expertise
- › Services and support

that enable you to commerce confidently in the face of any supply chain pressure.



# Why Manhattan

Manhattan Active Supply Chain and Manhattan Active Inventory

## **Our deep understanding of the retail grocery supply chain improves business outcomes.**

We have built valuable expertise working with grocery leaders worldwide. Our solutions and services result from this experience, and our expertise creates real measurable business outcomes and value for our customers. Consider ASDA's view of Manhattan:

"The need to build something which can be responsive to the market both now and in the future is just as important to retail success as the quality and variety of products that you sell. It was the recognition of these shifting consumer expectations and an eight-year relationship with Manhattan that led us to select Manhattan Active Warehouse Management to support our longer-term goals. Knowing that our teams will always have access to the latest innovations across our entire network of nationwide DCs will mean we are in the best place possible to achieve our aim of serving our customers better than anyone else in the UK grocery space."

## **Our feature-rich solutions support the most sophisticated grocery supply chain requirements.**

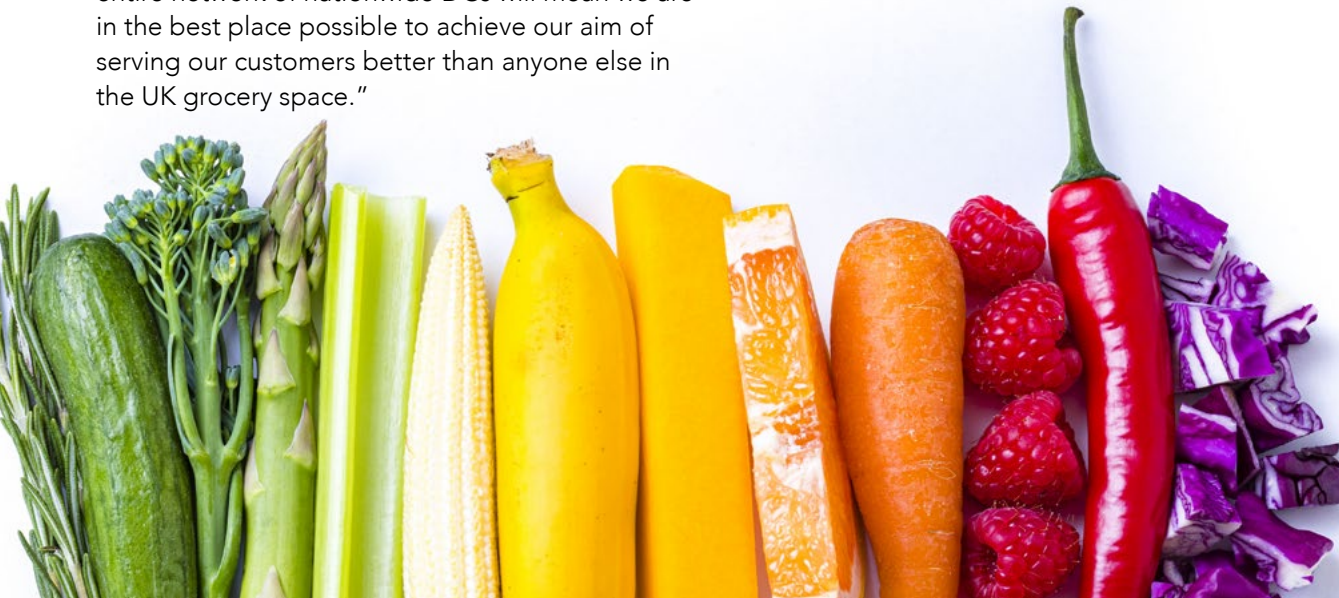
We have delivered solutions to optimize supply chain efficiency, agility, and reliability across the retail grocery industry. Our know-how and technology innovation combine to form long-lasting solutions to supply chain problems and improvement opportunities. Consider this perspective from Giant Eagle:

"With real-time capability provided by the Manhattan solutions, we're able to capture and analyze the time required for each step of the distribution process. These improvements will enable us to increase throughput and ultimately reduce our inventory investment and space requirements."

## **Our cloud-native, micro-services technology drives your resilient and agile supply chain.**

Our solutions provide clear supply chain visibility and unprecedented control from order to delivery and from planning to execution. Our cloud-native and micro-services architecture is flexibly composable and configurable to quickly and cost-effectively enable new processes, experiences, and outcomes. Optimized through data sciences and aligned through behavioral sciences, our solutions create work environments that foster the best of humans and automation executing together to drive greater efficiency and productivity. Consider this perspective from Gartner:

**A Leader in the 2022 Gartner® Magic Quadrant™ for Warehouse Management Systems (WMS), for the fourteenth consecutive time, Manhattan is once again positioned highest in Ability to Execute and furthest on Completeness of Vision. Manhattan is also a 2022 Gartner Magic Quadrant Leader for Transportation Management, for the fourth consecutive year, offering the only cloud-native, 100% micro-services Transportation Management System.**



# Find the capabilities to help you improve

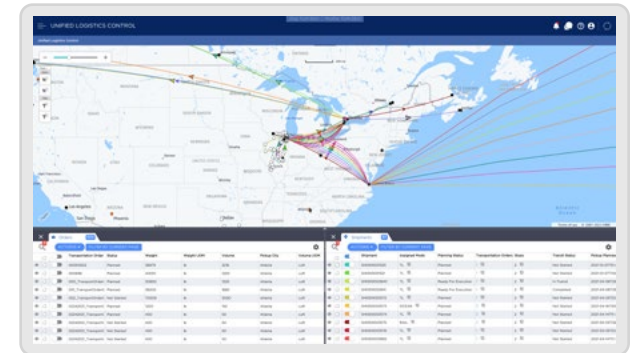
Manhattan Active Supply Chain and Manhattan Active Inventory

With Manhattan, flexibility is at the core of our solutions, allowing you to leverage the capabilities you need to solve your most pressing challenges and improve your supply chain performance. Maybe you want to naturally converge every element of distribution and transportation to achieve peak productivity and efficiency. Possibly, your focus is optimizing your demand forecasting and inventory. Or maybe you seek to improve your warehouse operations. Regardless of the best option for your business, you'll get the advantages of the Manhattan Active platform: our cloud-native architecture that automatically scales when needed, never requires upgrading, and is fully extensible at the UI, data, and network levels with more than 10,000 APIs available. Here is a quick synopsis of our recommended solutions for improving and optimizing the retail grocery supply chain, with links to learn more:



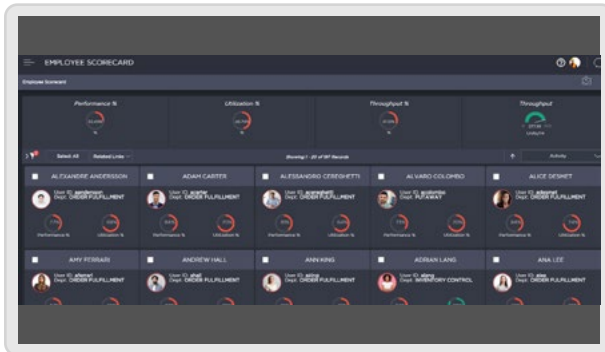
## MANHATTAN ACTIVE WAREHOUSE MANAGEMENT

Engineered to enable a resilient supply chain, and agile enough for whatever comes next, Manhattan Active Warehouse Management unlocks the untapped potential of every warehouse/distribution center. Advance your warehouse operations beyond basic picking, packing, and shipping, including seamlessly orchestrating all work across man and machine, to create and flawlessly execute a hyper-flow of inbound and outbound goods and information. [Learn More >](#)



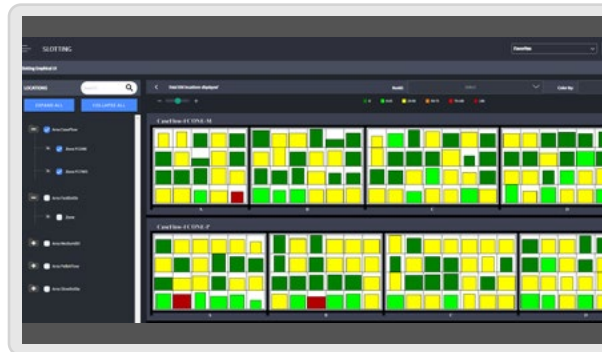
## MANHATTAN ACTIVE TRANSPORTATION MANAGEMENT

Manhattan Active Transportation Management is the fastest, smartest, and easiest way for you to manage transportation planning and execution. Capabilities such as multi-modal optimization, unified logistics control, and pre-integrated rate and capacity management enable you to optimize routes, improve visibility, accelerate planning, and lower the cost of shipping while reducing carbon emissions. [Learn More >](#)



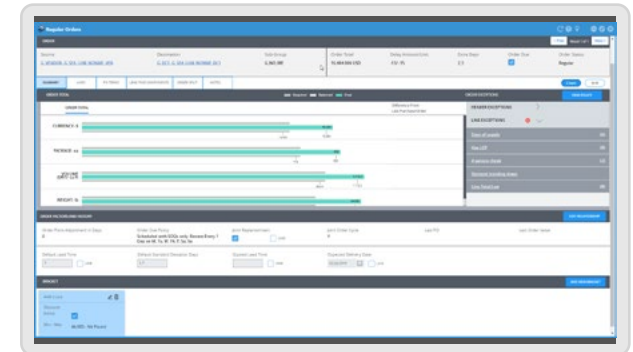
## MANHATTAN ACTIVE LABOR MANAGEMENT

Once we understand what drives human desire, aspiration, and behavior, we can develop techniques and intuitive tools to create a more individual and rewarding work experience. Manhattan Active Labor Management uses data-driven gamification, real-time digital communication, automatic recognition, rewards programs, and more to move beyond labor management to true employee engagement and performance. [Learn More >](#)



## MANHATTAN ACTIVE SLOTTING OPTIMIZATION

Manhattan Active Slotting Optimization provides unique, seamless integration of slotting moves and picking, engineered as part of overall distribution center management. It continuously optimizes slotting by analyzing seasonality, sales trends, and product variations, using applied intelligence while maintaining preferred-item sequencing and family groupings. [Learn More >](#)



## MANHATTAN ACTIVE INVENTORY

Manhattan Active Inventory uses machine learning to continuously monitor and automatically fine-tune inventory, enabling precisely positioned inventory across your supply chain to reduce the risk of stockouts or oversupply. Demand Forecasting uses valuable visibility and insights into a wealth of structured and unstructured inventory data, unlocking new levels of predictive forecasting accuracy. [Learn more >](#)



**See how we help leaders  
like you succeed**



## Supply Chain Leaders



### GIANT EAGLE REDUCES COSTS AND INCREASES CUSTOMER VALUE

Manhattan solutions: [Warehouse Management](#) and [Labor Management](#)

U.S. grocer company Giant Eagle replaced outdated batch technology and multiple systems in various locations with a modern supply chain solution by Manhattan Associates. Giant Eagle's supply chain transformation focused on reducing costs to increase profitability while improving efficiency to deliver an improved customer-value proposition.


Manhattan's Warehouse Management solution supports all operations in the company's distribution centers. Optimized processes include radio-frequency (RF) receiving, directed put-away, directed replenishment using priority bumping capability, voice selection, RF loading, put-to-store, trading partner management, labor management, and advanced reporting.

Giant Eagle has realized many benefits from using Manhattan solutions. Outbound shipment accuracy has increased to 99.9%. Productivity has increased by 8% to 10% in the company's health and beauty distribution centers (DCs) and 3% to 5% in other DCs.

**"Manhattan's solutions give us the capabilities and efficiency we need while taking costs out of our supply chain."**

James Hilzendeger, Director, Giant Eagle

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Increased outbound accuracy  
to 99.9%



### GIANT EAGLE FINDS A ROUTE TO GREATER EFFICIENCY WITH MANHATTAN TMS

Manhattan solutions: [Transportation Management](#)

Giant Eagle's multiple DCs ship grocery, dairy, frozen meat, produce, and health and beauty care products to 470-plus stores. The company controls approximately 36% of its inbound freight to the DCs. Its outbound transportation network is highly complex, consisting of Giant Eagle's fleet of 340 drivers who cover over 16 million miles a year. The company needed to replace a fragmented transportation systems environment that led to disarray in transportation strategy and resulted in inefficiency.

Gone are the days of varying delivery times for the company's stores resulting from decentralized routing, ongoing delivery pressures, inefficiency, and wasted miles. Manhattan Active Transportation Management replaced Giant Eagle's current system. Unified with Manhattan Active Warehouse Management, the single platform enables Giant Eagle to focus on improving cube utilization and routing optimization.

Through critical capabilities such as centralized routing cross-docking, the company reduced empty miles by 8% and total miles by 7.7%. The company also improved cube by 7% and filled available capacity with backhauls, improving load utilization and lowering inbound costs.

**"Partnering with Manhattan gave us the capability to move to a much more efficient, sustainable, holistic transportation model, which allowed us to gain greater efficiencies across our entire supply chain."**

Ann-Marie Daugherty, Vice President of Logistics, Giant Eagle

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A large white semi-truck is driving on a multi-lane highway. The sky is a mix of blue and orange, suggesting sunset or sunrise. The truck is in the right lane, moving towards the viewer. There are other vehicles in the distance.

Improved cube utilization by 7%





## ONLINE GROCERY RETAILER REDMART SET FOR CONTINUED GROWTH

Manhattan solutions: [Warehouse Management](#)

RedMart, a Singapore-based online supermarket, needed new capabilities to power its growth. Growing about 20% per month over two years, the company realized it needed automation in its distribution processes to take advantage of the growth opportunities ahead.

The company partnered with Manhattan to transition to an automated fulfillment approach to optimize its complex order operations and rapidly scale the business. With its new Warehouse Management capabilities, RedMart now has the robustness needed to run a high-growth e-commerce grocery business with a wide product selection, high in-stock rates, and fast order-to-delivery cycle times.

RedMart has achieved its desired outcomes with Manhattan. Order cycle times have been cut in half. Service levels (on-time in-full) improved to a 99%+ accuracy rate. And employees have become more engaged and accountable through systematic performance tracking capabilities.

**"We've certainly laid the right foundation with Manhattan and are confident that we have the right technological platform to support our future business growth."**

Vikram Rupani, Co-Founder of RedMart

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Cut order cycle times by 50%



## Supply Chain Leaders



### THE CO-OPERATIVE KEEPS SHELVES FULL WITH MANHATTAN ASSOCIATES

Manhattan solutions: [Warehouse Management](#)

The Co-operative Group (Co-op), the UK's largest mutual retailer with over 3,000 stores, needed to streamline its distribution process to improve on-shelf availability. A fragmented system of three separate distribution networks – ambient goods, temperature-controlled, and frozen – created many inefficiencies, leading to a high out-of-stock rate in some regions.

The company implemented Manhattan Warehouse Management to support its move to a new distribution network with a streamlined delivery process serving each store with a single, multi-temperature truck. A significant benefit of the new solution is the reduction in shipping errors, which has improved in-store availability and has reduced the administrative burden on staff.

The first new distribution center supported by Manhattan, located in Co-op's Southeast UK region, converted the region from the worst-performing in terms of on-shelf availability to one of the best. Further, warehouse productivity improved by 10%.

**“We are well on the road to achieving our ideal network — multi-tiered, composite and strategically located. Thanks to Manhattan Associates, we have a framework that gives us visibility and control of stock and the flexibility we need to grow.”**

Trevor Ashworth, Director of Food Retail Supply Chain,  
The Co-Operative Group

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Improved productivity by 10%



**ASDA CHOOSES MANHATTAN ACTIVE WAREHOUSE MANAGEMENT TO CONTINUE THE EVOLUTION OF ITS SUPPLY CHAIN**

Manhattan solutions: [Warehouse Management](#)

Asda, one of the largest supermarket chains in the UK, wanted to distribute stock, fulfill online orders, and manage resources more efficiently. The company recently selected Manhattan Active Warehouse Management to improve its distribution processes, enabling it to adapt to supply chain fluctuations and, ultimately, provide better choice and service to its 18+ million weekly customers.

**“Consumer expectations have significantly changed over the last 18 months, and we need to evolve our technology to drive greater efficiencies from our logistics operation.”**

Jon Parry, Vice President of Asda Logistics Services

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Asda extends 8-year relationship with Manhattan





## NOTES/SOURCES

1 <https://www.mckinsey.com/industries/retail/our-insights/the-state-of-grocery-in-north-america>

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3 <https://nypost.com/2022/01/15/supermarkets-face-empty-shelves-from-labor-shortages-shipping-costs/>

4 <https://www.iwains.com/what-grocers-can-do-to-combat-the-risk-of-food-spoilage-and-waste/>

5 <https://talkbusiness.net/2022/01/state-of-the-state-2022-retailers-expect-a-transitional-year-with-higher-revenue-lower-margins/>

6 <https://www.oliverwyman.com/our-expertise/insights/2019/jan/boardroom-volume-4/food-production--monitor--protect--and-lead/sustainable-retail-in-grocery.html>

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