SUPPLY CHAIN – EXTENDED ENTERPRISE MANAGEMENT

⫘⫘ Manhattan
Associates.

PUSH POSSIBLE™

IN A FAST-MOVING WORLD

The Manhattan Active™ Supply Chain suite of solutions allows enterprises to optimize large and complex operations, adapt to market and demand changes, and iterate and innovate at speed. With our solutions, you have technology that is always current, seamlessly interconnected, and easily adaptable.

ALWAYS FLEXIBLE, ALWAYS CURRENT

Staying active requires a flexible approach in which enterprises can take advantage of the newest technology, quickly. To achieve a faster pace and support constant innovation, Manhattan Active Supply Chain solutions are designed to adapt. Available across a variety of deployment options—public cloud, private cloud, managed/ hosted, multi-tenant, or on-premises—these solutions serve a broad range of needs, capabilities, and budgets. With options to receive annual upgrades, you can implement the next version of an application each year to take advantage of new features and functions. Our Manhattan Active WM service provides annual upgrades, both on premises and in the cloud, including the option to automatically migrate custom extensions.

INTERCONNECT SEAMLESSLY FOR ALL-AROUND OPTIMIZATION

Manhattan Active Supply Chain allows you to innovate and optimize complex distribution and transportation operations with actionable visibility across the network. Purpose-built features are tailored for a range of industries, including food distribution and grocery, retail, life sciences, apparel and footwear, high-tech electronics, third-party logistics, and others.

A new report from Forrester projects that U.S. shoppers will spend nearly $460 billion online in 2017. Online sales are making gains and are projected to account for 17.0% of all retail sales within the next five years up from a projected 12.9% in 2017, according to its August 2017 report.

FORRESTER DATA: ONLINE RETAIL FORECAST, 2017 TO 2022 (US)

EXTENDED ENTERPRISE

Supplier Enablement

Hub Management

Appointment Scheduling

Yard Management

Event Management

Visibility

THE GAP

Your end customers in whatever way they choose have become the "new" in brand protection. To that end, the importance of bridging functional gaps between warehousing, transportation, and the extended enterprise continues to be a critical link in the supply chain. Clearly the convergence of processes among internal teams and external trading partners allows for more responsive operations, real-time visibility, and lays a foundation for increased profitability.

Your external suppliers and logistics providers obviously play a vital role in your ability to service your customers. Failure to perform at consistently high levels often results in negative consequences for your customers and therefore, your business. Historically, the external supply chain has been viewed as largely outside the control of the enterprise and performance was often managed under compliance initiatives or threat of penalties. Manhattan's Extended Enterprise solutions offer visibility, control, and collaboration in those vital areas of your supply chain that lie outside the four walls.

TIGHTER COLLABORATION DELIVERS HIGHER PROFITS

Manhattan's Extended Enterprise has been architected to foster closer collaboration— across departmental boundaries and with suppliers, carriers, 3PLs, and other trading partners—so your supply chain can help drive top-line growth without sacrificing bottom-line performance.

From a secure, online, web-enabled portal that facilitates real-time collaboration between you and your suppliers to better visibility of receipts, shipments, yard activity, and in-transit inventory, all Extended Enterprise capabilities work together to improve supply chain agility. With Extended Enterprise, you can gain direct control of product flow with logistics partners, including last-minute inventory re-direction to respond to changes in product demand.

With the proliferation of fulfillment methods and selling channels, companies are increasingly reliant on their trading partners to support the scale of operations they need to compete. Manhattan Extended Enterprise enables closer collaboration amongst all partners in the supply chain ecosystem.

SOLUTION COMPONENTS

From inbound receipt handling, outbound fulfillment, and jockeying of trailers in your yard to better visibility and closer collaboration with suppliers, carriers, 3PLs, and other trading partners, Extended Enterprise ensures you can look ahead while minimizing logistics disruptions. With the Manhattan Active™ Integration Platform, the Extended Enterprise augments our Distribution and Transportation suites to enable smoother operations and logistics workflows.

Manhattan Extended Enterprise includes:

– **Supplier Enablement** that provides suppliers all the access, communication and supply chain execution tools needed to successfully service your enterprise

– **Hub Management** for physical execution of shipping and receiving at hubs, pool points, transload facilities or other LSPs
– **Yard Management** for granular visibility and task-based control of yard operations
– **Appointment Scheduling** so carriers and suppliers can self-schedule warehouse delivery and pickups
  – **Supply Chain Event Management** for automated monitoring of supply chain events with real-time notifications when disruptions occur
– **Supply Chain Visibility** which provides role-based access to current information regarding your inventory, orders and shipments across the globe

SUPPLIER ENABLEMENT

Your suppliers are scattered all over the world, speak different languages, work different hours, trade in different currencies, and have varying technical capabilities, yet you share a common goal with them to get product to your customers quickly and profitably. Supplier Enablement offers a secure, online, web-enabled portal that facilitates real-time collaboration between you, your suppliers, and other trading partners, despite the diverse geographies, languages, and technical capabilities of your supply chain. All suppliers need to tap into the power of Supplier Enablement is an internet connection and a printer!

With this online collaboration you can quickly improve communications and business process execution for your distribution center operations and across your upstream supply chain.

Features + Functions

Communication & Collaboration

– Post group messages to trading partners to alert them to vital information that may impact their ability to serve you
– Share critical documents with key trading partners electronically
– Acknowledge and track receipt of critical documents
– Receive and store electronic documents forwarded by your trading partners
– Audit all critical communications in a centralized, common vendor portal

Supply Chain Execution

– Enable centralized purchase order acknowledgement and negotiation across all trading partners
– Enable creation of single SKU, mixed SKU, and pre-pack LPNs by suppliers
– Generate and print EAN/UCC128-compliant shipping labels at supplier locations
– Scan load LPNs and pallets onto outbound trailers
– Standardize and print required shipping documentation such as BOLs
– Automate creation of LPN-level ASNs which increase downstream receiving efficiency and lower your DC labor costs
– Automate time-consuming manual purchase orders
– Request and capture third-party inspections for quality audits online
– Identify product defects earlier in the fulfillment cycle, well before good arrive at your distribution centers
– Leverage modernized reporting and data visualization to monitor the effectiveness of the external supply chain
– Initiate chargebacks when poor performance or quality issues arise to encourage greater on-time delivery and compliance
– Automate claims for non-compliance events such as late shipments
– Generate cost of goods invoices (COGI) to unite supply chain execution and supply chain finance
– Facilitate 3-way matching against the PO, ASN, and COGI

HUB MANAGEMENT

Supply chain agility is essential to compete in today's business environment. For some, this means better visibility and control over the flow of goods through 3PL sites that's en route to distribution centers. For retailers, this may mean tighter control of their product that's being routed to stores by third-party delivery agents. That's why companies use Hub Management to gain visibility and control over the flow of goods well before inventory reaches its next destination. By digitally connecting all facilities responsible for the efficient flow of goods, Manhattan's Hub Management ensures all nodes of the supply chain are more than just pass-through locations, but are capable of complex distribution processes.

BETTER VISIBILITY, MORE EFFICIENT EXECUTION

Our Hub Management solution provides high-performing, mobile technology that easily and inexpensively enables warehouse-like execution in all nodes of your supply chain, no matter how small or complex the facility. With Hub Management, third-party logistic providers can even consolidate shipments directly to stores or end customers, bypassing warehouses altogether.

Whether the facility is a distribution hub, cross dock, pool point, transload facility, or consolidation/de-consolidation point, Hub Management provides world-class supply chain execution and visibility across the network.

Features + Functions

– Provide mobile, scan-based receiving by LPN, pallet, or load
– Enables seamless receive-to-shipment capabilities to streamline cross-dock and flow-through operations
– Track and report against OS&Ds
– Enable zone-based inventory storage assignment
– Enable zone-to-zone inventory relocation
– Complete inventory audit processes to ensure inventory integrity
– Lock and hold inventory
– Scan load LPNs and pallets onto outbound trailers
– Constrain shipment volumes based on downstream receipt
– Standardize shipping labels and documentation through the entire supply chain for more accurate scan-based receiving at all locations
– Enable direct-to-store and direct-to-customer shipments that reduce transportation, labor, and storage costs while shortening order fulfillment times
– Provide mobile support for "temporarily disconnected" realities of many 3PL and hub sites

APPOINTMENT SCHEDULING

Closer collaboration with suppliers, carriers, and 3PLs is crucial to increasing supply chain efficiencies. With Appointment Scheduling, you can give carriers and suppliers the ability to self-schedule warehouse delivery and pickups, eliminating delays and errors from time-consuming manual processes. Better yet, by closely coordinating inbound and outbound appointments with warehouse packing personnel, shipping departments, and fleet operators, your team has an increased ability to tightly control the three largest sources of distribution cost—labor, freight, and inventory.

IMPROVE PRODUCTIVITY AND COMPLIANCE

Poor carrier appointment scheduling can create inadequate labor allocation, inefficient loading and unloading, as well as unnecessary dwell times. Our Appointment Scheduling solution is a proven tool that allows carriers and suppliers to quickly and easily self-schedule their warehouse deliveries. This helps you increase productivity and balance workloads, stay on schedule, and stay in compliance with U.S. Hours of Service and other government regulations.

Features + Functions

– Turn more loads in less time to avoid delays and charge-backs
– Recommend appointment times based on resources, service needs, and shipment content
– Support system-recommended times to drive appointment setting and dock resources allocation at any DC
– Enable carriers to better comply with U.S. Hours of Service, the European Working Time Directive, and other government regulations
– Self-schedule shipments via electronic data interchange (EDI) or a web-based interface
– Track time at guard stations, measure detention times and load/ unload times
– Automatically calculate load times based on required delivery dates, order content, dock capacity, warehouse capacity, and labor requirements
– Allow load balancing across shifts to calibrate resource requirements

YARD MANAGEMENT

With the rapid response required in today's supply chains, operational efficiency is more essential than ever. Our Yard Management capabilities help ensure that efficiency by providing detailed visibility and task-based control of yard operations. And by maximizing the flow of all inbound and outbound goods, your team can reduce costs while meeting customer demands.

INCREASE VISIBILITY AND CONTROL

Yard Management maximizes yard and warehouse efficiency by managing the flow of all inbound and outbound goods. Our proven yard management solution enables you to plan, execute, track, and audit loads based on critical characteristics like shipment type, load configuration, labor requirements, and dock and warehouse capacity.

Features + Functions

– Gain visibility to shipments on the yard and to the associated inventory including yard security
– Increase control over equipment operating on the yard for maximum efficiency
– Organize load arrivals that ensure trailers unload at the right dock door and correct time
– Reduce transportation costs and increase warehouse efficiency
– Identify and expedite critical shipments or out-of-stock goods
– Communicate with yard jockeys using mobile devices
– Leverage Guard Check-in and Check-out for appointment and yard security management while critical loads are identified and expedited directly to dock doors

EVENT MANAGEMENT

Enterprises are constantly being challenged to adapt to market and demand changes, and to iterate and innovate at lightning speed. However, this agility is practically impossible without proactive monitoring of supply chain operations, both within your four walls and across your extended enterprise. It's fundamentally important to help team members from the warehouse, transportation, stores, and procurement, as well as suppliers and carriers, stay abreast of supply chain performance in real time.

PROACTIVELY MONITOR FOR BETTER PERFORMANCE

With Event Management, your team can monitor millions of supply chain events as they occur, on a day-to-day basis. From buyers to warehouse supervisors to traffic managers to store associates, all parties can receive real-time notifications that enable proactive, corrective actions to improve inventory control and turns, cycle time variability, and warehouse productivity.

Features + Functions

– Manage a configurable list of events tracked across the lifecycle of inventory
– Ensure fulfillment activities are executed according to expectations and that inventory arrives on time
– Track pickups and deliveries to make sure inventory moves on time as promised
– Ensure orders are accepted on time and raise critical awareness if suppliers are unable to fulfill the complete inventory needs
– Make informed decisions about whether to expedite inventory by knowing when supply chain disruptions delay shipments in real time
– Adjust schedules and reduce labor costs based on late shipment and delivery notifications
– Reroute goods as they see transportation issues in real time
– Receive more consistent, dependable shipments based on delay mitigation capabilities, dynamic in-transit allocation, and visibility to inbound goods

Endnotes:
1 The Wall Street Journal, May 21, 2015
2 The Wall Street Journal, April 9, 2017
3 Invesp, E-Commerce Product Return Rate
4 The Houston Chronicle, April 17, 2017

VISIBILITY

Today, it's a real challenge for enterprises to optimize and adapt large and complex supply chain operations. Enterprise-wide visibility of the global supply chain is required to make the right operational and cost decisions. Manhattan provides a single, global view of real-time order, inventory, and shipment information—both domestic and international—across the global supply chain network.

POWERFUL ANALYTICS FOR REAL-TIME ORDERS, INVENTORY, AND SHIPMENTS

Using sophisticated data access and role-based privileges, you and your trading partners and customers, can securely see what is happening across your entire supply chain with a lightweight and responsive interface.

Whether you need to know inventory positions in distant warehouses or the status of shipments in transit, supply chain analysis tools show you real-time order, inventory, and shipment information so your team can reduce logistics costs and more effectively manage carriers and 3PLs.

Features + Functions

– Monitor perishables systematically, and reduce inventory loss from expired goods
– Reduce costs associated with expedited delivery
– Lower inventory levels and safety stocks
– Enable and optimize direct-shipping channels
– Improve customer service
– Achieve faster time-to-market for new products
– Outsource logistics effectively
– Reduce cost of goods sold through drop shipping
– Automate compliance with customs' 10+2 regulations

COLLABORATE AND ADAPT

Constantly expanding fulfillment methods and selling channels mean that enterprises are more dependent than ever on their global trading partners to support the scale of operations needed to compete. Manhattan Extended Enterprise enables closer collaboration with trading partners to ensure an adaptive, agile supply chain.

MANHATTAN ACTIVE™
SOLUTIONS

ALWAYS CURRENT

SEAMLESSLY INTERCONNECTED

CONTINUOUSLY ADAPTIVE

MANHATTAN ACTIVE
SUPPLY CHAIN

DISTRIBUTION

WAREHOUSE MANAGEMENT
LABOR MANAGEMENT
SLOTTING OPTIMIZATION
BILLING MANAGEMENT

MANHATTAN ACTIVE
INVENTORY

TRANSPORTATION

MODELING
PROCUREMENT
PLANNING & EXECUTION
FLEET MANAGEMENT
AUDIT, PAYMENT & CLAIMS

CARRIER MANAGEMENT

MANHATTAN ACTIVE
OMNI

FORECASTING & REPLENISHMENT

DEMAND FORECASTING
REPLENISHMENT
VENDOR MANAGED INVENTORY
MULTI-ECHELON
SALES & OPERATIONS PLANNING

EXTENDED ENTERPRISE

SUPPLIER ENABLEMENT
HUB MANAGEMENT
APPOINTMENT SCHEDULING
YARD MANAGEMENT

OMNICHANNEL COMMERCE

ORDER MANAGEMENT
CUSTOMER ENGAGEMENT
POINT OF SALE
CLIENTELING
STORE INVENTORY MANAGEMENT
STORE ORDER FULFILLMENT

PLANNING

FINANCIAL PLANNING
ASSORTMENT PLANNING
STORE PLANNING
STORE CLUSTERING
ITEM PLANNING
PROMOTIONAL PLANNING

EVENT MANAGEMENT   VISIBILITY   INTELLIGENCE
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