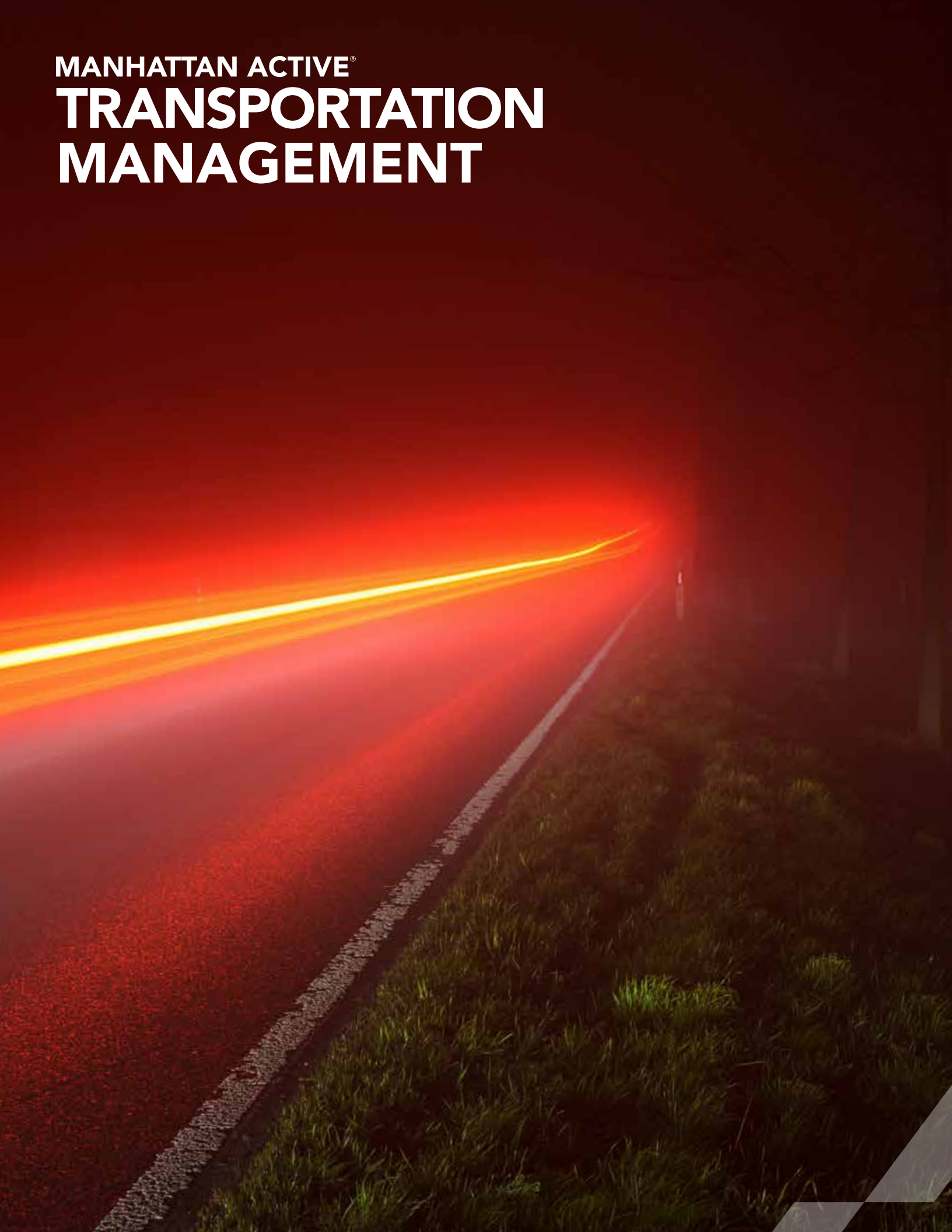


MANHATTAN ACTIVE[®]
**TRANSPORTATION
MANAGEMENT**



Manhattan Active® Transportation Management

FASTER, SMARTER & EASIER.

“The next generation of TMS solutions like Manhattan Active Transportation Management are significantly faster, but they are also making the transportation planner’s job easier with self-configuring and self-tuning intelligence to ensure the optimal solve every time.”

Chris Cunnane, ARC Advisory Group

Logistics complexities and service-level expectations have increased dramatically over the past decade, and disruption reached new levels this past year. Micro and macro disruptions like network changes, rising rates, reduced capacity, escalating supplier and consumer demands, and global pandemics have created complexity and volume that legacy transportation management systems (TMS) were never designed for. Agility has become the industry’s most valuable asset, as companies scramble to adapt to new uncertainties.

At the same time, procurement has become too complicated, planning takes too long, and execution has become a minefield of exceptions and workarounds. The status quo is no longer good enough. So, we made something better.

Manhattan Active Transportation Management (TM) is the next generation of TMS. It is cloud-native, built entirely from microservices, and never needs upgrading. New features and updates arrive every 90 days for all users. It was engineered to be extended, so you can add your innovation to ours without ever impacting those future updates. Most importantly, it is part of Manhattan Active Supply Chain, a single app for complete command and control of all distribution, labor, automation, and now transportation.

Features + Functions:

- All microservices, cloud-native SaaS architecture
- Engineered extensibility to add unique logic seamlessly
- Continuous multi-modal planning and optimization
- Fastest optimization solve speed in the industry
- Self-configuring and self-tuning optimization engine
- Unified, responsive, user experience across the network
- Pre-connected visibility, capacity and carrier partners



Cloud-native agility and performance

In the last decade, most TMS solutions have been converted to the cloud. But understanding the differences between cloud offerings can be confusing, as the terms “cloud” and “cloud computing” have become generalized to cover any solution being maintained outside the four walls of an enterprise. Typically, terms such like “runs on the cloud” or “hosted in the cloud” represent legacy solution architecture and design concepts that have been modified — or “washed” — to run in a remote data center. Cloud-washed solutions do not take full (or often any) advantage of the core cloud architecture elements that offer so much promise to businesses. Instead, they simply shift the limitations of legacy solutions onto different servers in a different building. That means they still struggle with issues like extensions, implementations, upgrades, scalability, licensing costs and time to market. For all intents and purposes, they are the same outdated, monolithic, on-premise solutions.

Manhattan Active TM is engineered natively for the cloud, meaning it is designed with flexibility and elasticity to be ready for whatever comes next. The term “cloud-native” refers to applications that take full advantage of virtualization and containerization, use APIs extensively and leverage the scalability of the internet to autonomously harness vast amounts of computing power. These differences make Manhattan TM significantly more scalable, dependable, extensible and affordable. Users get a single, unified experience across all roles and locales with maximum speed, consistency and accuracy.

At Manhattan Associates, we take a cloud-native approach across our supply chain solutions because we are committed to ensuring that you can keep promises and create amazing experiences for both your teams and your customers.

Benefits:

- All microservices, cloud-native, SaaS solution that never needs upgrading
- Automatic performance scaling in real time to match volume fluctuations
- Continuous access to innovation in quarterly releases
- Part of a single app with distribution, labor and automation capabilities

SOLUTION COMPONENTS

A unified, cloud-native logistics solution engineered to adapt and grow with an organization's shipping needs — regardless of volume, complexity or geography.

TRANSPORTATION MANAGEMENT

Manhattan Active Transportation Management is the fastest, smartest and easiest TMS ever created. It was designed by Manhattan's dedicated data science and engineering teams with more than three decades of learning and experience working with some of the world's most complex supply chains. We took all that knowledge and paired it with the most innovative technology in the industry to create something truly unique in transportation planning and execution.

From its extraordinary cloud-native architecture and all-new, blisteringly fast, multi-modal solver with intelligent self-tuning optimization to its unified user experience and pre-integrated rate and capacity management, Manhattan Active TM improves visibility, accelerates planning and lowers the total cost of shipping.

UNIFIED CONTROL

To be most effective, transportation leaders need a single, comprehensive workspace in the office or on the road. Unified Logistics Control delivers a completely redesigned planning experience that is more intuitive and configurable. It was purposefully designed to ensure faster and easier visualization of the transportation network to help planners work smarter.

The incredibly rich user experience is visual by nature, and configurable by design. Large, interactive maps provide a rich canvas to explore order and shipment details, with real-time details available with a click or a tap.

The intuitive user interface offers a personalized planning experience by reorganizing visuals and data to match individual user needs. Creation and management of all planning and execution tasks can be accomplished within Unified Logistics Control, at any level of granularity. Shipment visibility is front and center, making it simpler than ever to execute changes.

Searches are fast and convenient, with results easily filtered for all key performance indicators. Users can now recognize trends faster and immediately react. Now, there is no separation between understanding and action, because unlike traditional “control towers,” insight and execution are in the same app.

Real-time notifications are included as well, through both alerting and messaging. Alerting is configurable and triggered during changes or exceptions, ensuring users are notified in real time, anywhere within the solution. Proactive digital communication between peers is included as well, so users can collaborate and engage with each other, no matter where they are in the network.

Features + Functions:

- Unified visibility, insights and execution in a single workspace
- Intuitive, responsive user experience for every role in the network
- In-app messaging for quick and easy peer communication
- Configurable interface panels to personalize planning experience
- Simple, fast search-and-filter for all critical business objects
- Proactive, subscription-based alerting for personalized exception management

TM Carrier

Manhattan TM Carrier offers new, unified control capabilities, with a single, harmonized experience between the carrier network and the mobile app. So no matter where they are, users work in a single interface for activities like tender and accept, appointment scheduling, shipment visibility, event tracking and more.

With Manhattan TM Carrier, shippers can work directly and more effectively with service providers to improve execution. Dispatchers can utilize it for driver assignment and monitoring, as well. For small and medium-sized carriers, Manhattan TM Carrier taps into the ubiquity of smartphones and geofencing technology to deliver advanced visibility and communication. It levels the playing field, allowing them to meet compliance requirements with no additional cost. And it provides drivers the ability to communicate directly with Manhattan Active TM — no matter where they are on the road.

The results? Improved service, increased compliance and better reporting.

UNIFIED OPTIMIZATION

Shipment planning has gotten a lot harder in the past two decades, with significant increases in volume, shrinking delivery windows and fluctuating capacity. Those changes have exponentially increased the complexity of feasibility and routing assessments from both a cost and service perspective. Traditional TMS solutions can no longer keep up with the expanding volumes of complicated shipment variations required to meet the demands of the modern supply chain.

Manhattan Active TM utilizes an all-new, multi-modal optimization core that is the fastest in the industry. It leverages in-memory computing technology that keeps data cached instead of recreating a hierarchical data structure each time new parameters need to be planned. By performing a probabilistic analysis of the transport network the technology automatically determines the ideal algorithms needed, depending upon the problem being solved. The system also intelligently chooses – in real time – between multiple route generation techniques, without any oversight required by the transportation planner.

A key ingredient for any type of optimization is rapid access to accurate data. The more high-quality data that can be considered, the better the result. And the faster that data can be interpreted and planned, the more time organizations have to make optimal decisions. That's why Manhattan Active TM also considers external data during planning, with more cloud connections than ever to information like visibility, weather and traffic details. And because carrier selection is also optimized at the same time, it is easier to assess common carrier versus fleet options, when applicable.

Manhattan Active TM is incomparably smart too. Traditionally, transportation planners have had to deal with a significant number of detailed parameters, all of which must be tweaked to perfect a legacy TMS plan. Manhattan Active TM now configures and tunes those factors automatically for optimum results. In legacy TMS solutions, manual settings like maximum distance between stops – which a planner might nominally set for 75 miles – would miss opportunities to include a stop that is 75.4 miles away. Manhattan Active TM now considers all factors in real time and adjusts plan parameters, so it never misses an opportunity for efficiency. All told, hundreds of manual configuration parameters have been eliminated.

Manhattan Active TM is the most technologically advanced shipment optimization solution ever created. It streamlines, accelerates and optimizes every transportation plan, protecting your bottom line, and increasing customer service levels.

Features + Functions:

- Full, modal support for fleet and common carrier, across all lanes and assets
- Last-minute consideration for existing shipments when new orders are available
- Fully supports flexible rating for all modes
- Historic and current traffic considerations
- Self-tuning and self-configuring optimization core
- In-memory computing and caching yields industry's fastest network solver
- Load optimization and mode consolidation/conversion (i.e., LTL to multi-stop TL)
- Multi-leg optimization, including use of crossdocks
- Reduced routes, miles and fuel costs
- Consolidation of orders to build efficient shipments
- Support carrier and supplier compliance and guidelines
- Enhanced trading partner collaboration and communication

Engineered Extensibility

Manhattan Active TM was engineered from the ground up to be extended, to quickly and easily combine the power of your innovation with ours. We understand that your business is unique, and you must be able to customize the data model, access APIs and exit points, and configure the interface as you see fit. We utilized a new kind of SaaS TMS architecture to ensure shippers can extend Manhattan Active TM, without ever impacting future release updates. Whether you need to configure a new experience within the user interface, add new attributes to track, or integrate your custom "secret sauce" external logic, you can do it with this remarkable TMS.

Benefits:

- Extensible at data, UI and service level without affecting updates
- Thousands of REST APIs for connecting new network partners quickly and easily

UNIFIED EXECUTION

When it comes time to execute domestic or international transportation plans, Manhattan Active TM elevates the standard for tackling some of the world's most complex supply chains with all the benefits of a cutting-edge architecture, data science and modern user experiences.

Manhattan Active TM was designed to make it easier than ever to integrate companies within your network. With connections to the most partners ever, and the ability to add even more quickly and easily, the technology unleashes more visibility, more capacity and more engagement with a tap. And with Manhattan's rapid onboarding process, you can bring new capabilities and connections online in as fast as a week, from start to finish.

Better yet, we have already made many of those connections for you. The Manhattan Carrier Network provides pre-connected access to more carriers, capacity and visibility partners than ever before. The same is true for the vendor network too, with rapid, one-time supplier setup and onboarding, along with the ability to manage routing requests and communicate routing responses. Many of the partners that offer benefits like spot rating and capacity, real-time visibility, traffic and much more, are pre-integrated. Manhattan Active TM even has built-in capabilities for broadcasting spot needs and interacting with freight marketplaces directly within the TMS.

Our quick-rate search capability provides a dynamic query into both rate and route feasibility for contracted rates, delivering much more than a simple rate check. Feasibility is based on a variety of factors, including weight and volume constraints, capacity availability and even transit times.

Manhattan TM streamlines antiquated freight settlement processes by managing invoices by exception and lowering excessive and incorrect charges quickly and efficiently. Automating communications and processes reduce overhead and costly errors and improve pre/post audit carrier contract compliance, freight audit and payment capability.

Beyond the real-time insight provided within the Manhattan Active TM user experience, advanced reporting and business intelligence are also available, providing unprecedented control and actionable insights to ensure operational metrics are as easy to monitor as possible.

Features + Functions:

- Engage with pre-connected visibility, carrier and marketplace partners
- Accommodate visibility, alerting and exception management needs
- Digital freight brokerage integration with rate shop and broadcast capabilities
- Manage appointment scheduling with real-time shipment visibility
- Granular visibility and efficiency with mobile yard check-in and check-out
- Vendor network with easy setup and management
- Acquire spot rates from multiple service providers or brokers
- Integrated business intelligence dashboards and reports
- Manage invoicing and reconciliation
- Institute match or auto-payment processes with carriers

