



NUCLEUS
RESEARCH

TMS Technology Value Matrix 2025

ANALYST

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The Bottom Line

The 2025 Transportation Management System (TMS) Technology Value Matrix reflects a market defined by rapid innovation, consolidation, and the widespread application of AI across logistics execution. Persistent volatility in global trade, labor shortages, and capacity constraints continue to drive organizations toward platforms that unify planning and execution while optimizing cost and service. Vendors are embedding agentic and generative AI directly into TMS workflows, automating load planning, scheduling, payments, and exception management to shorten cycle times and improve resilience. Integration with adjacent systems, such as WMS, ERP, and supply chain planning, has become a key differentiator, enabling end-to-end visibility and faster response to disruption. Sustainability and multimodal optimization remain growing priorities, with platforms incorporating emissions tracking and carbon-aware routing into decision-making. As the line between execution and intelligence blurs, transportation management systems are evolving from transactional tools into AI-powered orchestration engines that enable global logistics networks to operate with greater speed, transparency, and precision.

Market Overview

The transportation management market in 2025 remains highly volatile as organizations navigate tariffs, trade restrictions, regional conflicts, currency fluctuations, and environmental regulations. Nearshoring and reshoring continue to reshape freight networks, creating new cost structures and service challenges across modes. These pressures have made TMS platforms a critical tool for maintaining efficiency and cost control while balancing delivery performance and risk exposure.

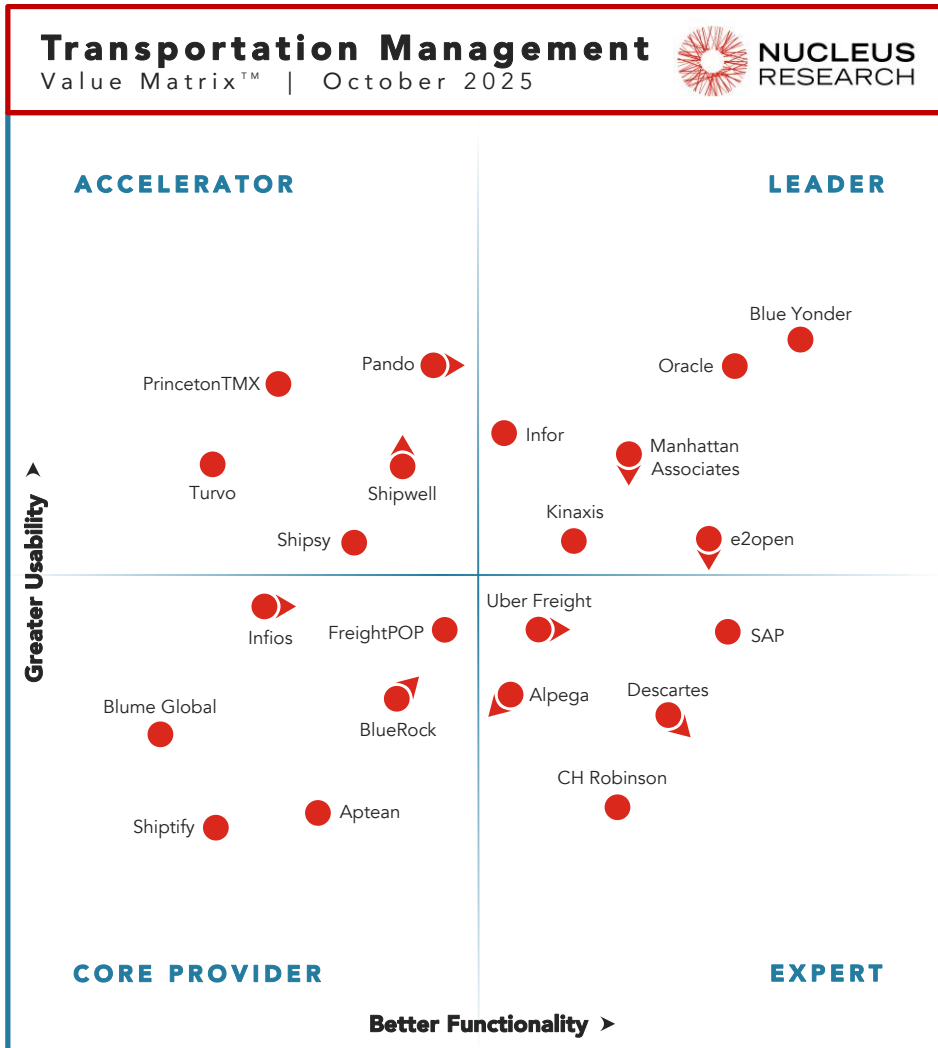
Regional dynamics vary. Southeast Asia remains a key manufacturing hub but faces higher trade and political risk, prompting companies to diversify suppliers and invest in analytics for disruption modeling. The UAE and broader Gulf region continue to function as global logistics crossroads, yet instability and export controls complicate long-term agreements. North America and Europe are relatively insulated but still face capacity and policy shifts tied to global trade realignment. Across all regions, organizations are using transportation software to re-optimize networks and manage rising uncertainty in supply and demand flows.

Nucleus found a clear relationship between maturity in global trade compliance and investment in integrated business planning. Organizations that treat compliance as a strategic capability, supported by structured and shared data, tend to manage transportation with greater agility. Integrating trade data with planning systems allows these organizations to simulate tariff or cost changes before they hit operations, protecting margins and continuity. The linkage highlights that planning and execution must operate as one system if organizations want to anticipate rather than react to volatility.

Artificial intelligence has moved from predictive analytics to execution. Vendors are embedding AI agents that perform shipment scheduling, freight audit, invoice reconciliation, and payment processing without manual intervention. These capabilities shorten order-to-delivery time, reduce error rates, and improve throughput across logistics operations. End users are demanding more role-specific use cases that tie directly to day-to-day workflows rather than broad, generic tools. As a result, vendor competition has shifted toward embedding practical automation that delivers measurable ROI.

Global trade volatility is driving renewed investment in transportation management platforms.

Nucleus found a clear correlation between trade compliance maturity and integrated planning investment.



Vendors are embedding AI agents to handle scheduling, auditing, and payment reconciliation.

There is continued focus on convergence between planning and execution layers, vendors continue to enhance their open integration frameworks that connect carrier networks and ERP systems, and the automation of scheduling and dock operations to reduce congestion. Vendors have also expanded emissions tracking and sustainability functionality to drive better routing and mode selections. Mergers and acquisitions continue as providers expand their logistics and AI capabilities to strengthen platform depth and data connectivity.

Persistent barriers remain around system integration, data quality, and internal expertise. However, adoption continues to accelerate as organizations seek to offset labor constraints and rising freight costs through automation. The market is moving toward a more autonomous model of transportation management, where connected planning, transparent data, and applied AI combine to drive faster, more accurate, and financially measurable logistics decisions.

Ongoing M&A activity is expanding platform depth and accelerating innovation in logistics software.

The Nucleus Research Transportation Management System Technology Value Matrix provides an assessment of the market based on how vendors deliver value to customers through the usability and functionality of their solutions (Nucleus Research x222 – Understanding the Value Matrix – August 2025). The research is intended to deliver a relevant snapshot of the TMS technology market, rather than serve as an empirical ranking of the vendors. The arrows indicate each vendor's perceived momentum, which is informed through conversations with end users, recently released capabilities, features, and other areas of investment.

The TMS market is shifting toward autonomous operations supported by connected data and applied AI.

Leaders

Leaders in the TMS Technology Value Matrix include Blue Yonder, e2open, Infor, Kinaxis, Manhattan Associates, and Oracle.

Blue Yonder

Blue Yonder is recognized as a Leader in the 2025 TMS Technology Value Matrix. The vendor supports a wide range of industries, including consumer goods, retail and hospitality, life sciences, automotive and industrial manufacturing, high-tech, logistics services providers, defense, and humanitarian aid. Its Transportation Management solution is part of the broader Blue Yonder Platform, which also includes warehouse management, labor management, supply chain planning, command center, and order management functionality.

Blue Yonder serves a broad customer base across manufacturing, retail, logistics, life sciences, and defense industries.

The TMS enables organizations to streamline first-to-last mile deliveries by supporting optimization and execution across common carrier plans, private and dedicated fleet operations, and intercontinental shipments. Forecasting and replenishment tools help shippers anticipate carrier resource and fleet requirements, securing capacity ahead of demand. Its optimization engine can model complex transportation network constraints and factor in actual costs during planning, while scenario-based planning and procurement optimization features, such as combinatorial bidding, help identify cost savings opportunities. Integration with Blue Yonder's WMS and OMS enhances end-to-end visibility and decision-making.

Building on the Blue Yonder Network, the TMS extends collaboration across carriers, suppliers, and logistics partners. It supports scalable carrier connectivity through EDI, APIs, portals, or mobile, and centralizes appointment scheduling with predictive ETAs derived from real-time data. Disruption mitigation capabilities leverage integrations with IoT, GPS, ELD, and ocean container tracking to maintain on-time, in-full

performance. Organizations also benefit from inbound shipment optimization and supplier collaboration, reducing lead times, improving coordination, and addressing upstream supply chain disruptions.

Recent updates and announcements include:

► **Network Interoperability**

Blue Yonder has strengthened interoperability by fully integrating its TMS with the Blue Yonder Network. This allows customers to connect carriers, trading partners, and other execution systems for end-to-end collaboration. As a result, companies can better coordinate inbound shipment optimization, appointment scheduling, and real-time visibility across telematics and logistics partners.

► **Sustainability Integration**

The Transportation Management Solution now integrates with the Sustainable Supply Chain Manager, introducing a Logistics Emissions Calculator. This integration enables customers to factor emissions directly into transportation planning and execution activities with enhanced measurement accredited by the Global Logistics Emissions Council (GLEC) standard and paired with optimization capabilities. Businesses can now compare cost, service, and carbon trade-offs in one place, supporting sustainability goals without sacrificing operational efficiency.

► **AI Agents & Predictive Capabilities**

The introduction of the Logistics Ops Agent delivers role-specific insights and alerts, enabling faster exception handling (e.g., unrouteable shipments, backhaul opportunities). Predictive AI has been embedded into the optimization engine, using historical data to estimate late loads and transit times. This creates a continuous machine-to-machine feedback loop that improves accuracy over time, helping shippers anticipate risks and improve planning performance.

► **Omni-Channel Scaling**

Blue Yonder has upgraded TMS performance to support high transaction volumes, essential for omni-channel strategies. This includes faster rating with external carrier APIs, higher throughput for tendering and response processes, and improved freight tracking. These enhancements ensure organizations can scale seamlessly from parcel to full truckload as order volumes grow.

Blue Yonder TMS now integrates with Sustainable Supply Chain Manager, featuring a GLEC-accredited Logistics Emissions Calculator for cost, service, and carbon trade-offs.

Blue Yonder's new Logistics Ops Agent provides role-specific insights and alerts for exception management.

► **Advanced Load Planning & Rail Booking**

The platform now supports side-door aware 3D load building and palletization for safer, more efficient multi-stop deliveries. For rail, multi-destination bookings have been added to rating, tendering, and financial workflows. Food & beverage-specific 3D load building has also been introduced, accounting for multi-temperature trailers, side doors, and unloading safety.

New 3D load building and side-door aware palletization in Blue Yonder TMS improve safety and efficiency for multi-stop deliveries.

► **User Experience & Fleet Management**

A redesigned Fleet UX offers drag-and-drop scheduling for drivers, vehicles, and trips. This reduces underutilization by simplifying the reassignment of loads and creation of multi-load trips. A new Smartbench UX brings modern, web-based dashboards and usability enhancements, making the system more intuitive for daily users.

► **Financials & Procurement Enhancements**

New shipment-level AR visibility supports logistics service providers (LSPs), while procurement capabilities now account for surcharges in rail bids and complex road-rail costs. These enhancements streamline both procurement and settlement processes.

► **Transportation Optimization & Rating Services**

Blue Yonder launched a standalone Transportation Optimization product, making it easier for customers to plan routes and modes for cost, service, and sustainability trade-offs. Additionally, the new Transportation Rating Service exposes rating logic via APIs, enabling organizations to better integrate pricing into broader workflows and third-party systems.

► **Data Access & Archive Improvements**

The Archive service now allows customers to access TMS entity data directly through their Snowflake accounts. This reduces complexity in connecting to stored records and improves enterprise-wide data access.

E2open

E2open is placed as a Leader in the 2025 TMS Technology Value Matrix, recognized for its enterprise-grade transportation management capabilities within the Logistics Application Suite. The TMS product sits alongside complementary solutions for logistics visibility, global logistics orchestration, global parcel, booking, audit and settlement, transportation forecasting, vehicle routing and scheduling, and equipment management. This suite is part of e2open's broader

E2open TMS is part of E2open's Logistics Application Suite, spanning planning, visibility, booking, audit, and settlement.

portfolio of intelligent applications spanning planning, channel, supply, and global trade, all connected through the e2net N-tier Partner Network.

The platform supports organizations across a wide range of industries, including manufacturing, oil and gas, chemicals, retail, life sciences, aerospace and defense, automotive, communications, construction, consumer goods, healthcare, and transportation. E2open TMS supports every mode, air, sea, rail, road, and parcel, bringing together scheduling, forecasting, booking, shipment execution, visibility, freight auditing, and settlement in a single system. Built-in modules for analytics, collaboration, and customizable workflows enable shippers, logistics providers, forwarders, and carriers to manage operations with a unified, data-driven approach.

The scale of e2open's partner network underpins its value proposition. The company connects more than 500,000 enterprises, ensuring shippers can collaborate across the end-to-end supply chain. Transportation Forecasting allows users to secure multimodal capacity by lane, class, and day, while the Global Logistics Orchestration application leverages AI-driven prescriptive and predictive analytics to calculate ETAs, recommend route adjustments, flag inventory risks, and suggest corrective actions such as expedited shipments.

Recent updates and announcements include:

► **AI-Driven Global Trade Enhancements**

In March 2025, E2open launched a new wave of AI-powered capabilities across its Global Trade technology suite, designed to ease compliance and increase productivity for shippers, brokers, and logistics providers. These enhancements combine artificial intelligence, automation, and E2open's proprietary Global Knowledge content database to streamline some of the most resource-intensive processes in trade compliance.

► **Automated Classifications**

One of the key innovations is automated product classification, which replaces outdated manual processes and ensures accuracy even as regulations shift. Automating classification reduces costly customs delays, penalties, and compliance risk while also enabling businesses to audit historical classifications with greater efficiency. This upgrade helps trade teams improve productivity while maintaining strong regulatory alignment.

E2open TMS connects to the e2net N-tier Partner Network, linking more than 500,000 enterprises across global supply chains.

In March 2025, E2open introduced AI-powered trade compliance capabilities.

► **Global Trade Content with Generative AI**

E2open has also enhanced its global trade content capabilities with generative AI to make dense regulatory language more accessible. By transforming complex and jargon-heavy rules into clear, actionable summaries, the solution improves compliance across shipping and carrier operations. This capability is particularly valuable in environments with high transaction volumes, such as parcel shipments and internal corporate mail operations, where misinterpretation of regulations can lead to costly mistakes.

► **Enhanced Due Diligence**

To address gaps in traditional screening methods, E2open introduced AI-enhanced due diligence that improves the ability to process non-English data. The system transliterates and cross-references localized names with global data sources, ensuring companies capture potential risks that might otherwise be missed when screening against sanctions lists or compliance databases. This expanded screening ability supports more thorough vetting and mitigates exposure to fraud, financial penalties, or reputational harm.

► **Unstructured Document Processing**

Finally, E2open introduced unstructured document processing, which it described as a “holy grail” for global trade operations. This feature automates the conversion of unstructured transactional documents into structured data formats with high accuracy, linking them back to global trade content through a learning feedback loop. By reducing manual document handling, this innovation improves efficiency for importers, logistics service providers, and compliance teams, freeing up resources to focus on higher-value tasks.

Large language models and advanced decision frameworks are now embedded into execution workflows within e2open TMS to anticipate regulatory risks.

Infor

Infor is placed as a Leader in the 2025 TMS Technology Value Matrix, recognized for its Nexus Global Transportation Management solution. The platform supports industries including manufacturing, retail, and logistics, serving both mid-sized enterprises and large multinational organizations.

Infor Nexus TMS is part of the broader Infor Supply Chain Management portfolio, which also includes supply chain control tower and visibility, supplier management, procure-to-pay, supply chain finance, ESG and sustainability, and traceability solutions. Within this ecosystem, the TMS provides full multimodal, multileg, and multistop planning capabilities,

Infor Nexus Global Transportation Management supports manufacturing, retail, and logistics industries worldwide.

supporting collaboration between shippers and 3PLs on a single, integrated platform.

Infor Nexus TMS provides a multimodal, multileg, and multistop planning framework, enabling seamless collaboration between shippers and logistics service providers. As a single, integrated platform, it spans the entire transportation lifecycle, including sourcing, planning and optimization, execution, visibility, and freight pay and audit. Plans and execution are continuously aligned, with contracts embedded into processes so that activities are validated for compliance, and freight invoices are automatically generated from shipment and contract data. This reduces errors, ensures accurate charges, and allows execution data to flow back into planning for more precise future decisions.

At its core, Nexus TMS leverages a real-time visibility foundation, integrating with carriers, forwarders, LSPs, and suppliers via APIs, EDI, and other data feeds to provide up-to-date transportation event status. Intelligent optimization supports sourcing, routing, and execution decisions while carbon tracking and compliance capabilities help customers meet sustainability objectives. The platform also provides flexibility in service provider engagement, giving shippers the option to collaborate directly with their logistics partners or delegate transportation process management.

Infor Nexus distinguishes itself with its low-code development environment, allowing organizations to extend and customize functionality for unique business needs. Combined with its strong network connectivity and integration across Infor's SCM suite, Nexus TMS offers customers a scalable and adaptable solution for complex global logistics operations.

Recent updates and announcements include:

► **Cost-Agnostic Planning**

Enables shipment planning and execution without requiring contracts, rates, or cost data—accelerating decision-making and supporting urgent, ad-hoc shipments where cost is not the primary constraint.

► **Enhanced MQC Prioritization**

Improves allocation logic to factor in additional variables such as seasonal variations when managing minimum quantity commitments (MQCs) with carriers—strengthening partnerships and aligning transport execution with contractual obligations.

Infor Nexus TMS is part of Infor's Supply Chain Management portfolio, integrating with control tower, supplier management, and finance capabilities.

Carrier allocation logic in Infor Nexus TMS now considers seasonal and contractual variables for improved minimum quantity commitment management.

► **Post-Booking Transport Plan Change Monitoring**

Monitors and alerts users to critical changes in transport plans after booking—such as routing, carrier, schedule, or equipment updates—to ensure timely response and minimize disruption.

► **Rate Fetch Across Organizations**

Retrieves transport rates from affiliated organizations within a shared network, eliminating redundant rate uploads and fostering stronger cross-party collaboration.

► **ICS2-Compliant Shipping Instructions**

Integrates EU Import Control System 2 (ICS2) requirements into shipping workflows, ensuring complete pre-arrival cargo declarations and reducing the risk of customs holds or “Do Not Load” events.

► **Enhanced Carbon Emissions Tracking**

Leverages live shipment tracking to improve emissions calculations based on actual distance traveled across transport modes, increasing accuracy and transparency.

► **DQ Guardian**

Built on Infor Nexus’s foundational data quality framework, DQ Guardian provides approximately 350 dimensions for managing data consistency, accuracy, and timeliness—delivering a clear, actionable view of supply chain data quality.

Integrated EU Import Control System 2 compliance in Infor Nexus ensures accurate pre-arrival cargo declarations and avoids customs holds.

Continuous monitoring in Infor Nexus alerts users to routing, carrier, and schedule changes after booking to prevent delays.

Kinaxis

Kinaxis is placed as a Leader in the 2025 TMS Technology Value Matrix, recognized for its TMS+ solution built on the Maestro platform. Kinaxis serves enterprise organizations across logistics, manufacturing, retail, wholesale distribution, high-tech, and healthcare sectors.

The TMS+ solution extends Maestro’s multi-agent architecture into transportation management, delivering capabilities across analytics, planning, execution, and financial management. Analytics tools provide partner scorecards, predictive insights, and financial performance analysis to help organizations evaluate carrier performance and optimize cost-to-serve. The orders module supports the management of inbound, outbound, intercompany, and returns, giving shippers and carriers a single view across modes. Planning capabilities include multimodal rating, continuous optimization, and carrier selection, while execution functions cover booking and tendering, exception management, and visibility through an integrated control tower.

Kinaxis’ TMS+ solution is built on the Kinaxis Maestro platform and serves enterprise customers in manufacturing, logistics, retail, and healthcare.

Finance-related tools support service and rate agreement management, freight audit, and invoicing workflows for both customers and carriers.

TMS+ is an extension of Kinaxis's broader supply chain orchestration approach, which allows transportation workflows to connect seamlessly with adjacent areas such as supply chain planning, order management, sustainability, and returns. This integration enables users to run transportation planning and execution in context with demand forecasts, production schedules, or sustainability objectives, reducing silos across supply chain functions.

Recent updates and announcements include:

► **Launch of Kinaxis Maestro Platform**

In June 2024, Kinaxis unveiled its Maestro platform, an AI-infused orchestration layer designed to provide full transparency and agility across the end-to-end supply chain. Maestro integrates advanced computational technologies to unify strategic planning with operational execution, extending visibility and responsiveness from multi-year planning horizons down to last-mile delivery. This marks a foundational step for Kinaxis in positioning itself as both a planning and orchestration platform provider.

► **Integration of Execution Capabilities**

Expanding beyond planning, Kinaxis has integrated transportation management, order management, and returns management directly into its platform. By embedding execution functions alongside planning, Kinaxis enables true end-to-end orchestration. This eliminates traditional silos, ensuring companies can not only model scenarios and create plans but also carry them out within the same environment. The move signals a broader industry trend of vendors bridging the planning-execution gap.

► **Enterprise Scheduling Tool**

Kinaxis also introduced an enterprise scheduling tool to support globally integrated production scheduling. The solution considers plant layouts, constraints, and interdependencies to build feasible and efficient manufacturing schedules. By incorporating production realities into planning, organizations can generate schedules that are not only optimized but also executable, helping reduce bottlenecks and improve overall efficiency in manufacturing networks.

► **AI-Powered Tariff Response Solution**

Kinaxis TMS+ extends Maestro's multi-agent architecture into transportation management, unifying analytics, planning, execution, and financial workflows.

Kinaxis launched the Maestro platform, an AI-infused orchestration layer unifying planning and execution across the supply chain.

In April 2025, Kinaxis launched an AI-powered tariff response solution designed to help companies navigate global trade disruptions. With tariffs and regulations frequently shifting, the tool provides rapid analysis and recommendations to adapt supply chain strategies, offering confidence and agility in volatile environments. This solution directly addresses one of the most pressing risks facing supply chains today: global trade uncertainty.

► **Partnership with Databricks**

Also in April 2025, Kinaxis announced a partnership with Databricks to enhance its AI-powered orchestration platform with stronger data integration and analytics. The partnership leverages Databricks' capabilities in managing large, complex datasets, enabling Kinaxis customers to better consolidate and analyze data across their supply chain ecosystems. This enhances scalability, performance, and the ability to support advanced AI-driven workflows.

► **Multi-Agent Framework**

Kinaxis introduced its Multi-Agent Framework, a significant step forward in democratizing AI adoption for supply chains. This framework allows users to configure AI agents using natural language prompts, define their behaviors, and control access to relevant datasets—all without developer intervention. Scheduled for general availability in Q4 2025, the framework also focuses on AI explainability, providing transparency into how forecasts or alerts are generated. This helps build user trust while enabling tailored agent actions across different business contexts.

Manhattan Associates

Manhattan Associates is placed as a Leader in the 2025 TMS Technology Value Matrix, recognized for its Manhattan Active Transportation Management solution. The vendor serves large global enterprises across aerospace and defense, automotive, communications, consumer goods, distribution, healthcare, life sciences, manufacturing, oil and gas, chemicals, retail, transportation, utilities, and professional services.

The TMS is part of the broader cloud-native Manhattan Active Supply Chain platform, which unifies transportation management, warehouse management, labor management, and supply chain planning into one solution. This architecture enables organizations to operate on a single platform that spans strategic analysis, procurement, operational

The vendors partnership with Databricks enhances Kinaxis's data integration and analytics capabilities, enabling scalable, AI-driven orchestration across supply chain datasets.

Manhattan Associates serves large global enterprises across manufacturing, retail, life sciences, distribution, and other industries.

planning and execution, visibility, freight payment, and claims management.

The TMS is part of the broader cloud-native Manhattan Active Supply Chain platform, which unifies transportation management, warehouse management, labor management, and supply chain planning into one solution. This architecture enables organizations to operate on a single platform that spans strategic analysis, procurement, operational planning and execution, visibility, freight payment, and claims management.

Manhattan Active Transportation Management is part of the cloud-native Manhattan Active Supply Chain platform.

Vendor updates and announcements over the last year:

► **Enterprise Promise & Fulfill**

Manhattan Associates launched Enterprise Promise & Fulfill, a cloud-native solution that augments existing ERP systems with advanced order management capabilities. This product is designed to address the shortcomings of traditional ERP systems, which were often built for financial transactions rather than the dynamic inventory and fulfillment needs of today's B2B supply chains. Enterprise Promise & Fulfill provides organizations with real-time visibility into sellable inventory, intelligent order promising, and advanced fulfillment optimization. It enables manufacturers, brand owners, wholesalers, and distributors to surface more available inventory, make confident delivery commitments, and elevate customer satisfaction without requiring costly ERP overhauls. Built on Manhattan's microservices-based Active Platform, the solution integrates seamlessly with ERP, WMS, TMS, and eCommerce environments, making it especially valuable for enterprises running multiple or legacy ERP systems.

► **Agentic AI and Agent Foundry**

Manhattan unveiled sweeping support for agentic AI across its Active Platform solutions, introducing intelligent, autonomous agents capable of performing tasks, adapting to real-time conditions, and orchestrating workflows dynamically. Among the first released are the Intelligent Store Manager, Labor Optimizer Agent, Wave Inventory Research Agent, Contextual Data Assistant, and Virtual Configuration Consultant. These agents allow users to bypass traditional interfaces and interact with Manhattan systems using natural language, significantly enhancing user experience and operational efficiency. To further democratize innovation, Manhattan also introduced Agent Foundry, a platform enabling customers and partners to build and deploy their own specialized

agents. This allows organizations to tailor AI agents to unique processes without relying solely on vendor release cycles, accelerating automation scalability and reducing time-to-value. Importantly, all agents built in Agent Foundry comply with emerging standards such as A2A and MCP, ensuring interoperability with external platforms like Google AgentSpace.

Manhattan launched Enterprise Promise & Fulfill in 2025.

Oracle

Oracle is placed as a Leader in the 2025 TMS Technology Value Matrix, recognized for its Oracle Fusion Cloud Transportation Management (OTM) solution. The platform is widely adopted across industries such as automotive, communications, consumer goods, healthcare, high tech, life sciences, industrial manufacturing, oil and gas, restaurants, retail, wholesale distribution, and the public sector.

OTM provides a unified environment for managing global transportation operations across every mode. Its functionality spans procurement, order and carrier management, fleet and driver oversight, shipment booking and tendering, visibility and event monitoring, freight audit and payment, and tactical reporting. Optimization engines evaluate shipments against cost, service level, and asset utilization constraints, enabling organizations to maximize efficiency while maintaining customer commitments. With built-in multi-currency, multi-language, and unit-of-measure support, OTM is positioned to handle the complexity of international supply chains.

Oracle Fusion Cloud Transportation Management (OTM) supports global, multimodal transportation operations across every industry sector.

The platform also incorporates advanced features such as logistics network modeling, cooperative routing, embedded machine learning, and a logistics digital assistant for conversational queries. Document management capabilities automate the generation and validation of trade paperwork for cross-border shipments, reducing administrative burden and compliance risk. For users, configuration is streamlined through flexible customization and auto-assignment logic, making it easier to tailor processes to business needs.

Updates over the last 12 months:

► User Experience and Workbench Enhancement

Oracle has continued to refine its TMS user interface with updates to workbench tables, inline editing, mass updates, and usability improvements. Customers benefit from a cleaner, more efficient interface that reduces clicks, simplifies large dataset handling, and supports faster decision-making.

► **Mobile Capability Updates**

Mobile support in OTM has expanded with features like multi-shipment handling for drivers, mandatory quantity capture, external URL access, attachment printing, and customizable quick codes. These updates give frontline workers more flexibility and control, helping to streamline daily transportation tasks directly from mobile devices.

► **Embedded Machine Learning**

Oracle embedded ML into TMS functions with predictive capabilities, including order route prediction and planned shipment ETA prediction. These features allow users to anticipate delays, improve routing, and enhance overall network performance using data-driven insights.

► **Operational Planning Updates**

Several updates enhance transportation planning accuracy. These include reverse stop sequencing, axle weight considerations for rail, 3D load balancing, and new split/shipment handling logic. Together, these updates give planners greater flexibility and accuracy when designing complex shipment and equipment plans.

► **Sourcing and Procurement Enhancements**

Transportation sourcing received workbench enhancements and algorithmic improvements for cost and time evaluation across bids. Multithreading for sourcing runs also improves speed and scalability for large bid events.

► **Freight Payment and Billing**

Enhancements include new fallback logic for allocation rules, streamlining financial reconciliation. This reduces manual intervention and ensures faster, more reliable freight settlement processes.

Oracle improved its TMS interface with enhanced inline editing, mass updates, and workbench tables, increasing efficiency for large dataset management.

New features in OTM, such as reverse stop sequencing, axle weight validation, 3D load balancing, and split-shipment logic improve planning precision.

Experts

Experts in the TMS Technology Value Matrix are Alpega, CH Robinson, Descartes, SAP, and Uber Freight.

Alpega

Alpega is identified as an Expert in the 2025 TMS Technology Value Matrix, recognized for its flagship Alpega TMS product. The vendor supports mid-sized to large organizations across industries such as

agriculture, automotive, chemicals, paper and packaging, food and beverage, retail, and high tech.

Alpega TMS is a cloud-based transportation management solution that sits within the company's broader transport execution portfolio or Digital Transport platform, which also includes order management, cost management, real-time transport visibility, analytics, and packaging management. This portfolio is connected through the Alpega Open Logistics Network, a collaborative ecosystem that links more than 80,000 carriers with shippers, freight forwarders, and logistics service providers. By leveraging this network, Alpega enables greater partner connectivity and execution visibility across multimodal logistics operations.

Core features of the Alpega TMS platform include Smart Booking, which streamlines warehouse dock scheduling, and TenderEasy, designed to reduce the cost and complexity of freight procurement through more efficient bidding and contract management. Alpega also provides a 3D Load Planning capability, adding visual context to load optimization and improving operational and tactical planning accuracy.

Additional extensions within Alpega TMS include Premium Spot, a spot freight sourcing tool for capacity management, MultiParcel, which connects shippers to major courier and parcel providers, and direct ocean booking functionality to support global transportation requirements.

► **Alpega Multi Parcel**

In March 2025, Alpega launched Alpega MultiParcel, a new solution designed to simplify parcel shipping by integrating directly with global and regional courier, express, and parcel (CEP) providers. The parcel market is notoriously fragmented, with more than 30 national postal services and nearly 800 providers in Europe alone, creating significant integration and management challenges for shippers. MultiParcel eliminates the complexity of managing multiple carrier connections by offering a single point of integration via Alpega TMS. Backed by an aggregator platform, the solution provides instant access to hundreds of parcel providers worldwide, reducing costs and enhancing operational efficiency. With features such as advanced reporting, branded labels, and cross-border capabilities, MultiParcel enables mid-market and enterprise businesses to scale parcel shipping without the expense of individual carrier integrations.

Alpega TMS is a cloud-based transportation management solution within the company's Digital Transport Platform.

Alpega recently launched MultiParcel to simplify parcel shipping by integrating directly with global and regional courier, express, and parcel (CEP) providers.

CH Robinson

CH Robinson is identified as an Expert in the 2025 TMS Technology Value Matrix, recognized for its Navisphere technology platform. Navisphere is part of CH Robinson's shipper technology service portfolio and supports organizations across North America and Europe, ranging from small and mid-sized enterprises to large corporations. Key industries served include consumer-packaged goods, professional services, retail, and manufacturing. The platform supports the full lifecycle of truckload, LTL, ocean, and air shipments, enabling automation, optimization, and real-time visibility across modes.

With nearly 450,000 shippers and carriers integrated throughout the network, Navisphere delivers end-to-end shipment visibility and advanced decision support. Through Procure IQ, users generate customized routing maps for procurement by leveraging CH Robinson's data science models and global shipping data. These maps highlight lane density, performance benchmarks, and cost volatility, helping users identify savings opportunities and improve service reliability. Navisphere also integrates via API and EDI to streamline instant quoting, tendering, and shipment tracking, cutting down on manual effort while improving execution speed. Its visibility layer, Navisphere Vision (now branded as Advanced Visibility), extends real-time tracking capabilities across all transportation modes and providers.

Navisphere Optimizer applies business rules and proprietary algorithms to solve routing, carrier capacity, and modal selection challenges. Users input order, commodity, and lane-level data, which is standardized within Navisphere, and engineers configure rules such as delivery windows, loading type, or carrier capacity. The Optimizer evaluates alternatives and dynamically selects the best solutions, which are then executed directly within Navisphere. Complementing this, Navisphere Insights provides analytics on transportation spend, service levels, and on-time performance, equipping users with actionable intelligence for continuous improvement.

For SMBs, CH Robinson extends its capabilities through Freightquote and Freightview, which automate rate shopping, quoting, and booking processes. Organizations can also generate customized reports on freight, fuel, and accessorial costs to manage spend more effectively. Sustainability is addressed through Emissions IQ, which calculates and benchmarks carbon emissions across transport modes, helping companies measure and reduce environmental impact.

Recent updates and announcements include:

CH Robinson's Navisphere platform supports organizations across North America and Europe, from SMBs to global enterprises.

CH Robinson launched its Always-on Logistics Planner, an AI-powered service model that provides 24/7 supply chain execution support.

► Always-on Logistics Planner

In August 2025, C.H. Robinson launched its Always-on Logistics Planner, a premium AI-powered service model designed to deliver 24/7 supply chain execution quality. Unlike a standalone tool, the Planner is a coordinated service experience built on Robinson's global TMS platform and fueled by shipment data from 37 million loads annually. It embeds dozens of AI agents directly into customer operations, automating routine tasks such as shipment tracking, document processing, and invoice auditing, while surfacing strategic insights and enabling seamless coordination across modes and regions. By combining this digital workforce with human expertise, Robinson ensures continuous speed, precision, and reliability, freeing logistics professionals to focus on more complex problem-solving and innovation. The launch marks the beginning of a broader expansion of agentic AI across Robinson's Managed Solutions portfolio.

In 2025, CH Robinson launched an AI agent for LTL Classification.

► AI Agent for LTL Classification

In June 2025, Robinson addressed one of the biggest regulatory changes facing shippers: the overhaul of the National Motor Freight Classification (NMFC) system. To support this transition, the company introduced a new AI agent capable of automating the classification of less-than-truckload freight. This agent not only determines the correct class and code for shipments but also assists other AI agents in turning customer tenders into accurate orders. The solution has already automated over 2,000 orders per day, lifting Robinson's automation rate for LTL shipments from around 50% to more than 75%. By reducing the time to classify freight from ten minutes to as little as three seconds, the agent saves hundreds of labor hours daily while avoiding costly misclassifications that often lead to inspection delays, re-invoicing, or added fees. This innovation highlights Robinson's push into building AI agents that assist other AI agents, expanding the scope of automation and resilience for shippers.

Descartes

Descartes is placed as an Expert in the 2025 TMS Technology Value Matrix, recognized for its shipper-focused transportation management solution and its freight broker/3PL platform, Aljex TMS. The company serves global mid-sized to large organizations in retail, transportation and logistics, manufacturing and distribution, and field services.

Descartes TMS and Aljex TMS serve both shippers and freight brokers/3PLs through a unified technology ecosystem.

Descartes' TMS capabilities are powered by its broader Logistics Technology Platform, which brings together applications for B2B connectivity, customs and regulatory compliance, freight forwarding, global trade intelligence, e-commerce shipping and fulfillment, and routing and telematics. Underpinning this portfolio is the Descartes Global Logistics Network (GLN), a federated data and integration backbone that connects shippers, carriers, customs authorities, and logistics partners worldwide. In practice, the Logistics Technology Platform represents the application layer, while the GLN provides the connectivity and data exchange foundation that makes those applications interoperable.

Within this framework, Descartes Transportation Management unifies broker enterprise systems, customs, telematics, e-commerce fulfillment, global trade intelligence, and routing capabilities onto a single platform. Customers can adopt core TMS functions such as carrier booking, contract management, freight audit, and intermodal planning, then layer on advanced modules for parcel management, retail distribution, dock and yard management, import/export documentation, and denied party screening. The plug-and-play nature of the GLN reduces IT burden by enabling standardized integration templates across more than 600 carriers and logistics providers.

Updates over the last 12 months:

► **Acquisition of 3G TMS**

In March 2025, Descartes acquired 3G TMS to strengthen its transportation management portfolio across shippers, brokers, and 3/4PLs. 3G TMS brings a leading multi-mode optimization engine with direct carrier rating, supporting all transportation modes including drayage. Its highly configurable design allows organizations operating in different business models—such as asset-based 3/4PLs, brokers, and shippers—to run on the same database with tailored rules and end-user parameters for each unit. This acquisition significantly broadens Descartes' ability to support diverse customer environments under a unified TMS framework.

► **MacroPoint FraudGuard**

Descartes introduced MacroPoint FraudGuard and FraudGuard 2.0 as advanced fraud detection tools within its real-time visibility platform. FraudGuard analyzes billions of telematics and location data points to detect potential fraud, such as GPS spoofing or VOIP usage, before a load is assigned, during pickup, and after pickup. It proactively blocks fake tracking pings, verifies driver locations with

Descartes TMS and Aljex TMS serve both shippers and freight brokers/3PLs through a unified technology ecosystem.

Descartes acquired 3G TMS to expand multi-mode optimization and rating capabilities across shippers, brokers, and 3/4PLs.

metadata, and issues real-time alerts for suspicious activity. Available at no extra cost, FraudGuard has already proven effective, saving customers from stolen loads on its first day of use. By integrating these capabilities into MacroPoint, Descartes enhances network security, reduces fraud-related losses, and protects reputations by maintaining high-quality, compliant carrier networks.

FraudGuard and FraudGuard 2.0 were launched in Descartes MacroPoint to detect GPS spoofing and fraudulent tracking activity.

► **MyCarrierPortal Integration Enhancements**

Descartes expanded integration between its TMS offerings, MacroPoint visibility, and MyCarrierPortal (MCP), its carrier vetting and compliance platform. MCP consolidates data from FMCSA, insurance filings, customer feedback, and proprietary identity checks, and now includes MacroPoint tracking history to score carriers. This integration allows risk profiles and performance history to be visible when evaluating carriers in Descartes TMS, MacroPoint, or MCP. Users can see whether carriers consistently track loads, their preferred tracking methods (ELD vs. mobile app), and overall compliance performance. This tighter integration simplifies onboarding and qualification workflows while reducing exposure to non-compliant or high-risk carriers. The result is a safer and more reliable carrier network supported by unified risk monitoring and streamlined engagement processes.

► **AI Agents**

Descartes is embedding AI agents across its transportation management solutions to automate manual processes and improve exception handling. The first live agent already assists drivers assigned to upcoming loads by guiding them through MacroPoint mobile app installation if they are not ELD-connected. Additional agents are in development to handle routine check-calls, confirm arrivals and departures, support document capture, assist with ELD onboarding, and correct inaccurate carrier data. By incorporating AI agents into its platform, Descartes reduces the manual workload for brokers, shippers, and 3/4PLs, enabling faster responses to disruptions and improving customer service by lowering penalties and increasing throughput. This marks a significant step in Descartes' strategy to embed automation into everyday TMS processes.

SAP

SAP is placed as an Expert in the 2025 TMS Technology Value Matrix, recognized for its SAP Transportation Management (TM) solution. The product is used by multinational corporations across industries such as manufacturing, oil and gas, chemicals, retail, consumer packaged

goods, aerospace and defense, healthcare, hospitality, utilities, and the public sector.

SAP TM sits within the broader SAP Supply Chain Management portfolio, which spans supply chain logistics, planning, product lifecycle management (PLM), procurement, enterprise asset management (EAM), and manufacturing. All of these capabilities are built on the SAP Business Technology Platform, providing a foundation for cross-functional integration and scalability.

The TMS platform supports freight procurement and capacity management, allowing organizations to secure carrier agreements and better match available capacity with demand. Orders can be pulled directly from multiple order management systems, ensuring accurate transportation requirements. Execution is enhanced through integration with SAP Extended Warehouse Management (EWM), enabling synchronized freight documentation, yard visibility, and real-time updates on truck arrivals and departures. Users also benefit from visual load planning at the pallet level and advanced cost management tools such as freight charge calculation, mode-specific charging, and tariff administration.

Decision support is embedded through configurable dashboards, KPIs, and real-time reporting to guide operational and strategic planning. The system also streamlines documentation by providing shipment templates across road, sea, and air transport while integrating with SAP Global Trade Services for compliance with international trade regulations. Leveraging blockchain, IoT, and machine learning, SAP TM connects seamlessly with the SAP Business Network to extend visibility across suppliers, logistics partners, and customers, giving organizations the ability to align transportation with broader supply chain strategies.

Updates over the last 12 months:

► **Package Unit and Load Planning Enhancements**

SAP has expanded its package unit functionality, allowing planners to see where and how package units are created and to group stages by execution documents. These updates tie directly into the Transportation Cockpit with drag-and-drop planning for freight units and package units. Load planning has also become more advanced with detailed mixed package building, center-of-gravity rules, and 3D load plan visualization, giving planners better visibility and control when building shipments.

► **Planning and Scheduling Enhancements**

SAP TM is part of the broader SAP Supply Chain Management portfolio, built on the SAP Business Technology Platform for cross-functional integration.

Capacity adjustment factors can now be applied for mass, volume, and normalized quantities. This helps fine-tune available vehicle capacity during optimization and vehicle scheduling. Schedulers also benefit from new visibility into capacity utilization while assigning schedules and the ability to factor in location attributes (like location type) when determining load/unload durations.

► **Scenario Builder Enhancements**

SAP expanded its Scenario Builder, allowing templates to be created from scratch, not just from existing system data. Users can also generate sample data in Excel format to accelerate testing and scenario modeling. This makes scenario planning more flexible and accessible for transportation teams.

► **Generative AI for Conversational Planning**

A standout update is the introduction of generative AI in SAP S/4HANA TM for conversational planning. Through the Intelligent Scenario Lifecycle Management framework, planners can now use natural language prompts to enrich the cockpit interface with data on demand. Instead of navigating through cluttered columns, users can ask for specific details—such as planned delivery dates or truck capacity—and the system dynamically fills in the requested information. This reduces UI load, improves performance, and creates a more intuitive user experience.

SAP introduced generative AI in SAP S/4HANA TM for conversational planning through Intelligent Scenario Lifecycle Management.

Uber Freight

Uber Freight is placed as an Expert in the 2025 TMS Technology Value Matrix, recognized for its TMS platform that supports procurement, execution, end-to-end shipment visibility, freight audit and payment, along with analytics. The solution is designed to streamline end-to-end transportation management, helping organizations optimize multimodal networks and enhance cost and service outcomes.

The Uber Freight TMS is part of Uber Freight's broader logistics applications which extends its core transportation capabilities with parcel management, AI-driven decision support, freight procurement optimization, and one of the largest carrier marketplaces in the transportation industry. Uber Freight Parcel TMS helps companies manage the parcel cycle, while Insights AI acts as a logistics co-pilot with transportation management experts that combines chat-based interaction with AI-generated dashboards, proactive recommendations, and decision support. LaneHub provides efficiency tools for lane management and capacity planning, and Uber Freight Exchange

Uber Freight TMS supports procurement, execution, visibility, freight audit, payment, and analytics in a single platform.

enables shippers and carriers to collaborate more effectively in freight procurement.

Within the TMS, users can simplify freight procurement, seamlessly plan and execute with flexibility in dynamic markets, gain full visibility into every shipment, and ensure timely, accurate invoicing and payments. Supporting capabilities include multimodal planning, dock scheduling, shipment tracking, proactive alerts, carrier performance scorecards, automated freight audit and payment, and advanced reporting. These features allow organizations to make better procurement decisions, reduce costs, and respond to disruptions more effectively.

Beyond its software portfolio, Uber Freight also delivers managed and network-based services, spanning managed transportation, international freight forwarding, cross-border logistics, and customs brokerage. Its global shipping services cover over-the-road, intermodal, air, and ocean modes, supported by a carrier network that provides both scale and flexibility. The company's consulting offerings assist organizations with supply chain strategy and transformation, network design, transportation planning, and facility and warehouse optimization, while its carrier-focused services provide access to digital freight tools, instant quote APIs, and bidding functionality for contract and spot freight.

Updates over the last 12 months:

► **General TMS Updates**

Following its \$2.25B acquisition of Transplace, Uber Freight invested \$120 million into a next-generation enterprise technology roadmap. This included the most significant overhaul of the Uber Freight TMS since its launch in 2005, adding expanded multimodal visibility and usability enhancements. At the same time, Uber Freight launched Uber Freight Exchange, a contract freight procurement platform that allows shippers to run auctions with their own carriers or tap into Uber Freight's +100,000-carrier network.

The roadmap also introduced Insights AI, a generative AI-powered tool designed to transform how shippers interact with their supply chains. Additionally, Uber Freight is orchestrating one of the most advanced agentic AI systems in logistics—purpose-built to automate real-world tasks across the shipment lifecycle. Designed to complement human expertise, this system combines intelligence that guides decisions with automation that executes them. Uber Freight has embedded AI agents across image, voice, and text to

The platform is part of Uber Freight's broader logistics ecosystem, which includes parcel management, AI-driven decision support, and freight procurement optimization.

Following its \$2.25B acquisition of Transplace, Uber Freight invested \$120M to overhaul its enterprise TMS architecture.

help shippers visualize, schedule, track, and pay for freight more efficiently. Its generative and agentic AI layers work together to not only surface insights and recommendations but also take real-world action to drive results.

► **Finance Updates.**

With the latest updates to Uber Freight's TMS Financials, shippers gain greater visibility and control over their freight finances, giving teams the clarity and confidence to act faster. Operators can track and manage the full order-to-cash journey directly within the TMS, eliminating the need for disconnected systems. A refreshed design, data-rich insights for faster decision-making, and new bulk tools reduce dispute resolution times by up to 20%, while streamlined workflows accelerate the end-to-end AR and AP process, giving shippers faster resolution and carriers the confidence of more efficient payment cycles. The result is greater control of freight spend and more accurate forecasting across the network.

► **Capacity Expansion and Autonomous Freight**

Uber Freight has expanded its Powerloop program, which provides telematics-enabled drop trailers and drop capacity solutions, into multiple new states across the U.S., extending its reach far beyond its original regional footprint. The company also continues to scale its autonomous freight operations, with over 100,000 autonomous miles driven on its network through active partnerships with AV developers and shippers. Additionally, Uber Freight now operates six U.S.–Mexico cross-border facilities, supporting a 20 percent increase in trade volumes across its customer base, while employing more than 1,000 staff to strengthen operations in the region.

► **Uber Freight Exchange: Spot**

Building on the earlier launch of Uber Freight Exchange: Contract, Uber Freight unveiled Uber Freight Exchange: Spot, designed to simplify spot freight transactions at scale. Exchange: Spot allows carriers to access real-time load information, bid on spot freight quickly and accurately, and take advantage of automated tendering workflows. By aggregating spot freight into one marketplace and adding features like upfront pricing, dedicated lane bundles, and personalized recommendations, the platform increases efficiency and transparency for both shippers and carriers. Shippers and their transportation management teams have the ability to quickly, strategically, and seamlessly shift between procuring spot and contract freight.

Updates to Uber Freight TMS Financials give shippers full visibility into the order-to-cash process within the TMS.

Accelerators

Accelerators in the TMS Technology Value Matrix are Pando, Princeton TMX, Shipy, Shipwell, and Turvo.

Pando

Pando is placed as an Accelerator in the 2025 TMS Technology Value Matrix, recognized for its Fulfillment Cloud offerings. The vendor supports manufacturers, retailers, and distributors across industries such as consumer products, automotive, retail, pharmaceuticals, and chemicals.

Within the Fulfillment Cloud, Pando provides modular transportation and logistics capabilities across four core areas. Its Domestic TMS supports AI-driven load planning, mode and route optimization, private fleet planning, dock scheduling, 3D load planning, and access to a 40,000-carrier network. The International TMS extends these capabilities to global freight, offering multi-leg journey management, document and capacity planning, trade compliance, rate intelligence, and real-time risk management using AI agents that monitor geopolitical, weather, and carrier disruptions. Freight Procurement streamlines sourcing through RFQ creation, bid analysis, spot-buy automation, scenario planning, and sustainable sourcing. Finally, Freight Audit & Payment provides contract and rate management, on-time freight accruals, automated invoicing, reconciliation, spend analytics, and collaboration tools to ensure accurate settlement.

A key differentiator is Pando's use of AI agents designed for specialized logistics roles, including a freight procurement analyst, transportation expert, freight audit and pay specialist, and freight insights analyst. These agents provide automation and decision support across procurement, execution, auditing, and reporting, enabling faster cycle times and more resilient logistics operations.

Recent updates and announcements include:

► Launch of Role-Specific AI Agents

In February 2025, Pando introduced a suite of autonomous AI agents designed to manage specific roles across the freight lifecycle. These included the Freight Procurement Analyst, Transportation Expert, Freight Audit & Pay Specialist, and Freight Spend Analyst, each targeting a distinct area of logistics execution. Together, they enable customers to automate procure-to-pay workflows end-to-end, from sourcing and contracting through shipment execution, visibility,

Pando serves manufacturers, retailers, and distributors in industries such as consumer products, automotive, pharmaceuticals, and chemicals.

A defining feature of Pando is its role-specific AI agents designed for logistics roles such as procurement, transport management, audit, and analytics.

auditing, and payment. Built on Pando's Logistics Language Model and Supply Chain Knowledge Graph, these agents possess contextual awareness that allows them to continuously improve decision-making, ensuring both efficiency and accuracy without requiring additional headcount.

► **AI Agent for Freight Payment Automation**

By June 2025, Pando expanded its portfolio with a global freight payment agent focused on automating the audit-to-pay process. This agent supports multi-currency, cross-border payments across more than 60 countries, with the ability to process same-day clearances. Linked directly to verified audit data, the solution ensures full compliance and traceability in payment execution. The result is faster, error-free transporter payments that reduce costly delays caused by mismatched invoices, improving liquidity and strengthening carrier relationships.

► **Workplace Productivity App Integrations**

Pando has also embedded its platform into widely used workplace productivity tools, launching native integrations with Outlook, Microsoft Teams, and Slack. This allows users to approve shipments, review exceptions, or validate invoices directly within the communication platforms they already use every day. The major advantage is what Pando calls "zero change management" adoption—there is no need for retraining or workflow disruption. By meeting teams in their existing digital environment, the company has accelerated AI adoption even in traditionally change-resistant logistics organizations.

► **Unstructured Data Intelligence**

To further reduce operational bottlenecks, Pando has enhanced Pi's ability to process unstructured logistics data across emails, PDFs, spreadsheets, scanned documents, and EDI feeds. Leveraging a combination of OCR, natural language processing, and domain-specific AI models, Pi can now interpret and act on unstandardized data, a longstanding challenge in freight operations. This capability reduces carrier onboarding times, shortens dispute resolution cycles, and eliminates the need for manual data entry from irregular formats—streamlining a traditionally time-consuming part of logistics workflows.

► **Embedded Market Intelligence & Benchmarking**

Through a strategic partnership with FreightWaves SONAR, Pando has embedded live market rate and capacity data directly into its

Pando introduced Freight Procurement Analyst, Transportation Expert, Freight Audit & Pay Specialist, and Freight Spend Analyst Agents.

The global freight payment agent now automates cross-border payments in over 60 countries, enabling same-day clearances.

procurement and audit workflows. Customers can benchmark bids and contracted rates against high-frequency market data to quickly identify above-market costs. Unlike standalone benchmarking tools, Pando makes rate intelligence immediately actionable by embedding it within the decision flow, allowing logistics teams to respond to shifting market conditions in real time.

► **Continuous Planning-to-Execution Feedback Loop**

In another major step, Pando partnered with John Galt Solutions to create a continuous feedback loop between supply chain planning and logistics execution. This integration allows logistics teams to secure capacity and negotiate competitive rates ahead of forecasted demand surges, while planners refine their forecasts based on actual execution data and carrier performance. By connecting planning and execution in a self-learning network, the solution reduces reliance on costly spot buys, improves resilience, and enhances both cost and service outcomes across the supply chain.

Pando's partnership with John Galt Solutions connects planning and logistics execution through a self-learning feedback loop.

Princeton TMX

Princeton TMX is placed as an Accelerator in the 2025 TMS Technology Value Matrix. The vendor supports organizations in industries such as Metals and mining, lumber and building products, paper and packaging, aggregates, agriculture, food and beverage, and consumer packaged goods.

Princeton TMX serves organizations in metals and mining, lumber, paper and packaging, aggregates, agriculture, food and beverage, and CPG industries.

The Princeton TMX transportation management system provides multi-mode support across truckload, less-than-truckload (LTL), rail, barge, and intermodal shipments. Core features include exception-based management, optimization, RFQ creation, tendering, and reporting. Tendering capabilities allow users to allocate shipments by equipment type, lane, quantity, preferred carriers, lowest-cost carriers, or percentage-based rules. Reporting functions cover profitability per load, carrier scorecards, carrier costs, lane performance, tender volume, fuel cost, and rail pipeline activity, in addition to KPI tracking and year-to-date performance. These reporting tools enable logistics teams to evaluate cost and service tradeoffs while maintaining carrier accountability.

Updates over the last 12 months:

► **Patterns**

PrincetonTMX introduced its new Patterns capability to automate rail shipment setup. By leveraging historical shipping data, the

feature eliminates repetitive data entry and reduces the likelihood of errors. This automation streamlines rail shipment creation for shippers managing recurring freight, improving efficiency and accuracy in day-to-day operations.

► **Advanced Shipping Notification**

The platform now supports Advanced Shipment Notifications, giving shippers earlier visibility into inbound freight. Suppliers can transmit updates via EDI before carriers provide status information, allowing shippers to anticipate arrivals sooner. This capability enables more proactive planning, better coordination with warehouse and yard teams, and a reduction in last-minute surprises or disruptions.

► **AI-Enabled Load Intelligence**

PrincetonTMX expanded its AI-enabled Load Intelligence module to provide prescriptive insights, advanced forecasting, and detailed carrier scorecards. The enhanced reporting suite allows shippers to evaluate carrier performance, anticipate potential network challenges, and use data-driven recommendations to optimize decision-making. These improvements strengthen forecasting accuracy and provide a clearer view of cost and service trade-offs.

► **Private Fleet Management Enhancements**

The company also delivered key updates to Private Fleet Management, extending dispatching and utilization optimization features. The enhancements allow shippers to better integrate private fleet operations with third-party carrier networks, enabling a unified view of capacity. This integration helps balance cost, service levels, and asset utilization across fleets, improving both operational flexibility and efficiency.

Princeton TMX's new Patterns capability automates rail shipment setup using historical data to eliminate repetitive entry and reduce errors.

Shipsy

Shipsy is placed as an Accelerator in the 2025 TMS Technology Value Matrix, recognized for its Smart Logistics Management Platform. The company supports organizations within logistics service provision (post and parcel carriers, freight forwarders), retail (omnichannel, grocery, and quick commerce), and manufacturing (automotive, consumer goods, and process industries).

The Smart Logistics Management Platform is designed as a modular ecosystem that brings together multiple logistics functions under one framework. At its core is a suite of engines and microservices, including an intelligence engine, integrations engine, workflow automation,

mobility, communications, and partner applications, layered with developer APIs and app composition tools. These modules are unified through a digital control tower that connects with external enterprise systems such as OMS, ERP, WMS, CRM, EDWs, and even email-based workflows.

Shipsy positions its platform to serve a wide range of use cases across the transportation lifecycle, including freight procurement, shipment tracking, route optimization, courier aggregation, and first, mid, and last mile delivery. Beyond TMS-specific functions, the platform extends into multi-carrier management, international freight forwarding, and warehouse-level appointment scheduling, helping organizations manage complex logistics networks. The last-mile delivery suite is particularly relevant for retail and quick-service restaurant operators, supporting real-time visibility, dynamic routing, and proof-of-delivery.

By combining control tower visibility with route and resource optimization, Shipsy provides organizations with the tools to manage costs, improve service quality, and increase supply chain resilience. Its architecture emphasizes flexibility, allowing shippers, carriers, and logistics providers to integrate microservices such as geocoding, live tracking APIs, and anomaly detection into their existing operations without requiring a complete system overhaul.

Shipwell

Shipwell is placed as an Accelerator in the 2025 TMS Technology Value Matrix, recognized for its flagship TMS solution built on the Shipwell Supply Chain Platform. The Shipwell Supply Chain Platform provides the foundation for its transportation management capabilities, offering unlimited scalability, composable architecture, and mobile/web readiness. On top of this foundation sits Transportation Management Intelligence, which enables data-driven decisions through connected data, AI-driven insights, and predictive analytics. Above this intelligence layer, Shipwell operates the Shipwell Marketplace, a partner ecosystem that connects users to carriers, integrations, workflows, and third-party services. This ecosystem feeds into the Carrier Network, which unifies the four functional pillars of Shipwell's TMS: planning, execution, visibility, and settlement. Within this layered framework, Shipwell delivers core TMS functionality such as load optimization, freight audit and payments, pricing intelligence, dock scheduling, multimodal visibility, RFP automation, and reporting. AI use cases span across order creation, load optimization, scheduling, predictive ETA, and settlement, ensuring users can automate and streamline core logistics processes.

Shipsy's Smart Logistics Management Platform unifies logistics functions within a modular, microservices-based ecosystem.

The Shipwell Supply Chain Platform provides a scalable, composable foundation for transportation management with full mobile and web accessibility.

Shipwell supports small to medium-sized businesses across industries such as automotive, consumer goods, manufacturing, oil and gas, chemicals, distribution, retail, aerospace and defense, and transportation. Organizations can schedule shipments, receive real-time quotes, and track loads with EDI, API, and ELD integrations. The platform integrates with billing and payment systems to accelerate financial processes and reduce errors, while compliance features safeguard shipments by monitoring carrier performance and ensuring contractual alignment.

End-to-end visibility covers all modes, FTL, LTL, parcel, ocean, container, and drayage, with over 850,000 drivers and 2M ELD-connected units integrated into the network. Tools like the Compass Dashboard consolidate shipment statuses and exception alerts into one view, helping users resolve issues proactively. Shipwell also enhances cost management with predictive lane pricing and detailed emissions tracking, enabling customers to reduce freight costs while improving sustainability.

Turvo

Turvo is placed as an Accelerator in the 2025 TMS Technology Value Matrix, recognized for its flagship TMS product. The vendor primarily serves 3PLs, freight brokers, shippers, and carriers, offering tailored TMS functionality designed to meet the needs of these sectors.

Beyond transportation management, Turvo also delivers the Turvo Collaboration Cloud and Network Visibility offerings, extending its value to organizations looking to unify logistics processes across trading partners. The platform consolidates order management, shipment execution, appointment scheduling, analytics, and integration hub features into a single system, enabling SMBs in distribution and logistics to streamline daily operations.

Turvo's control tower features allow organizations to assess partner performance, execute contracts, optimize turnaround times, and monitor driver activity. Within order management, businesses can tender shipments, arrange pickups, and compare carrier rates, reducing rerouting and accelerating order processing. Document and shipment execution functions further enhance efficiency by enabling users to upload, share, and edit shipping documentation while extending shipment visibility to external partners.

In dock and carrier management, Turvo supports self-service appointment scheduling, real-time truck status updates, and contextual

The Shipwell Marketplace connects users to carriers, integrations, workflows, and third-party services, expanding operational flexibility.

The Shipwell Marketplace connects users to carriers, integrations, workflows, and third-party services, expanding operational flexibility.

scheduling, simplifying dock coordination and improving on-time performance. For advanced analytics, Turvo Analytics: Supply Chain 360° equips users with configurable dashboards and targeted reporting. These tools help organizations identify top-performing carriers, lanes, and customers, refine freight seasonality planning, and prioritize high-margin clients.

Updates over the last 12 months:

► **Turvo and SMC³ Partnership for LTL Optimization**

Turvo announced a strategic partnership with SMC³ to embed its LTL rating, booking, tracking, and documentation APIs into the Turvo collaboration platform. This move eliminates manual steps in LTL execution and provides brokers and 3PLs with real-time visibility, streamlined shipment workflows, and more accurate pricing. Customers like Gebrüder Weiss highlighted the value in enabling shippers to self-select LTL carriers, access dynamic pricing, and improve transparency across freight operations. The integration reflects Turvo's push to expand beyond core TMS functions into data-driven freight optimization, particularly in the fast-growing LTL market segment.

Turvo partnered with SMC³ to embed LTL rating, booking, tracking, and documentation APIs into its collaboration platform.

Core Providers

Core Providers in the TMS Technology Value Matrix are Aptean, Blue Rock, Blume Global, FreightPOP, Infios, and Shiptify.

Aptean

Aptean is positioned as a Core Provider in the 2025 TMS Technology Value Matrix, recognized for its AI-native, purpose-built Transportation Management System (TMS) and Routing & Scheduling solutions. Engineered for today's shipping and distribution teams, Aptean's platform empowers logistics leaders to streamline operations, boost efficiency, and gain a competitive edge through unified intelligence, real-time visibility, and advanced optimization capabilities.

Aptean seamlessly leverages advanced AI automation to improve shipment accuracy and customer satisfaction. Aptean's TMS is trusted across industries where transportation reliability is mission-critical, including food & beverage, industrial manufacturing, apparel, retail & wholesale distribution, agriculture, and pharmaceuticals. The platform delivers comprehensive functionality for integrated transport planning, routing, procurement, tracking, and settlement, across all modes,

Aptean is recognized for its AI-native, purpose-built Transportation Management System (TMS) and Routing & Scheduling solutions.

including private fleet distribution and domestic and international shipments.

Key capabilities include dock scheduling, RFQ Execution, freight audit and pay, carrier and vendor portal connectivity, waterfall tendering, multi-stop truck load, 3D load building for optimized packing, last-mile routing and scheduling, planned vs. actual tracking, and proof of delivery and DSD.

Aptean differentiates itself by embedding transportation within a comprehensive supply chain and operations ecosystem. Beyond TMS, Aptean offers a full suite of solutions including ERP, product lifecycle management (PLM), manufacturing execution systems (MES), warehouse management systems (WMS), retail and supply chain planning, enterprise asset management (EAM), and overall equipment effectiveness (OEE) solutions, enabling customers to unify transportation with production, fulfillment, and asset management for end-to-end operational excellence.

BlueRock

BlueRock is placed as a Core Provider in the 2025 TMS Technology Value Matrix. Its flagship product is a 16-module TMS platform designed to support strategic, tactical, and operational transportation decision-making. The solution spans the full logistics lifecycle, covering pre-planning, execution, visibility, and performance management. Core modules include network design, routing and scheduling, procurement, multi-carrier booking, dispatch, dock and yard management, anomaly detection, freight audit, and customer care. The platform is built for flexibility, allowing organizations to support all distribution modes, integrate customer pickup planning, and manage both dynamic FTL and complex milk-run planning.

BlueRock differentiates itself by aligning capabilities across three planning horizons. At the strategic level, the system provides network design, scenario comparison, and consultancy tools that help organizations future-proof their distribution strategies. Tactical functionality supports routing simulations, volume analysis, and consolidated network performance analysis, enabling organizations to make informed medium-term adjustments. Operationally, the platform manages daily planning, trip-level visibility, and performance analysis to improve service reliability and reduce costs through automation and unified network monitoring.

Aptean's TMS serves industries where reliability is critical, including food and beverage, industrial manufacturing, apparel, retail, agriculture, and pharmaceuticals.

BlueRock's flagship 16-module TMS platform supports strategic, tactical, and operational transportation decision-making.

The platform is tailored to multiple customer types. For network planners, it provides advanced scheduling and last-mile distribution management alongside dock and yard execution capabilities. For contract logistics providers and shippers, it functions as a control tower, offering tactical planning, scenario simulations, and order lifecycle monitoring across multiple transport legs. The system proactively signals at-risk orders, benchmarks carrier performance, and delivers financial insights into costs, margins, and returns. For last-mile distributors, BlueRock supports real-time scanning of orders to trailers, arrival and departure validation at depots, and consolidated delivery orchestration. Its coverage spans B2B, home delivery, and white-glove services, including support for one- and two-man transport across single- and multi-hub networks.

Blume Global

Blume Global is placed as a Core Provider in the 2025 TMS Technology Value Matrix. The vendor delivers transportation management solutions tailored to ocean and rail carriers, manufacturers, LSPs, and terminal operators. For ocean carriers, Blume provides multimodal network integration, real-time shipment tracking, and its machine learning-driven Blume Street Turns tool, which improves driver and truck utilization. For rail operators, functionality extends to asset reservation, appointment scheduling, domestic reloads, and equipment maintenance and repair. For LSPs, including Intermodal Marketing Companies (IMCs), Blume enables inland execution, real-time visibility, and seamless partner collaboration to streamline multimodal operations across fragmented carrier networks. Manufacturers benefit from sourcing, supplier and quality management, program execution, order fulfillment, and logistics execution, supported by real-time visibility. Terminal operators can leverage Blume's Appointment Scheduling Solution, which integrates with Terminal Operating Systems (TOS) for logistics service providers, terminals, and truck drivers to improve yard and dock efficiency.

The Blume Global platform enables organizations to plan, book, execute, settle, and track shipments across a global logistics ecosystem. Financial workflows are supported through capabilities ranging from pre-move rating to automated auditing, invoicing, and payment, helping reduce errors and enhance cost control. Blume combines its own multimodal carrier network, developed to serve the complex needs of ocean, rail, and landside logistics with deep integration into the broader WiseTech Global partner ecosystem. This dual-network architecture provides customers with expansive reach, comprehensive

Core modules in BlueRock TMS include network design, routing and scheduling, procurement, multi-carrier booking, dock and yard management, anomaly detection, freight audit, and customer care.

Blume Global delivers transportation management solutions tailored to ocean and rail carriers, manufacturers, logistics service providers (LSPs), and terminal operators.

multimodal orchestration, and the ability to optimize transportation across diverse global flows. Together with robust execution and financial integration tools, Blume is uniquely positioned to support the end-to-end needs of shippers, carriers, and logistics service providers.

Recent updates and announcements include:

► **WiseTech Acquisition**

Following the acquisition and completion of Blume Global's integration into WiseTech Global in 2024, Blume now benefits from global scale, deep R&D investment, and access to a broader suite of international logistics solutions. This alignment enhances Blume's ability to drive innovation in landside and multimodal execution while reinforcing its strategic role within the global supply chain technology ecosystem.

► **Ocean Terminal Appointment & Payment Platform Launch**

Blume Global, a WiseTech Global company, has launched Blume Global Appointment Scheduling, a specialized platform designed for ocean terminal operators to streamline container flows, simplify truck scheduling, and provide 24/7 online payment capabilities. The solution delivers a unified digital environment for shippers, brokers, truckers, and drivers, helping reduce congestion and delays at ports. The first implementation is at International Container Terminal Services, Inc. (ICTSI), the world's largest independent terminal operator, which deployed the system at its Subic Bay terminal in the Philippines under the brand "Navigate."

FreightPOP

FreightPOP is placed as a Core Provider in the 2025 TMS Technology Value Matrix, recognized for its AI Enterprise Transportation Management solution. The vendor primarily serves medium-sized to large enterprises looking to streamline logistics and transportation operations across multiple modes.

FreightPOP's TMS is a supply chain solution offering that combines warehouse execution, operational planning, shipping and order management, tracking intelligence, audit, and analytics. Its core features include warehouse management functionality (including inventory control, picking, and staging coordination), carrier rate shopping, dock scheduling, route optimization, shipment booking, visibility, automated freight audit, and predictive reporting. Users can manage shipments across parcel, LTL, FTL, ocean, and air while

Following its acquisition by WiseTech Global, Blume gained access to expanded scale, R&D investment, and an integrated suite of global logistics solutions.

FreightPOP's AI Enterprise Transportation Management solution combines warehouse execution, operational planning, order management, tracking, freight audit, and analytics.

consolidating orders and automating carrier selection with AI-driven workflows.

The platform connects to more than 2,000 carriers, ERP, WMS, CRMs, business systems, and rate marketplaces, providing a centralized hub for shipment execution and visibility. FreightPOP supports document creation and label printing, including invoices and bills of lading (BOLs), while automatically feeding shipment data back into business systems. Its tracking and auditing capabilities allow organizations to monitor inbound and outbound shipments in real time and automatically reconcile carrier invoices against contracted rates. Predictive lane analytics and performance dashboards provide organizations with deeper insight into shipping spend and service quality.

Updates over the last 12 months:

► **FreightPOP Evolves into FreightPOP AI**

In September 2025, FreightPOP announced a major transformation into FreightPOP AI, positioning itself as the first AI-native TMS. Rather than layering AI onto existing features, the company is embedding it into the foundation of its platform. FreightPOP AI introduces two complementary modes: copilot-style assistance, which delivers real-time recommendations and proactive insights for faster decision-making, and agentic automation, which executes tasks and optimizes workflows behind the scenes with minimal manual intervention.

► **AI-Powered Route Optimization**

Earlier in June 2025, FreightPOP released its AI-driven Route Optimization tool, a multimodal solution designed to reduce wasted miles, lower freight costs, and streamline delivery performance across parcel, LTL, FTL, and international shipments. The tool dynamically generates the most efficient routes by factoring in traffic conditions, delivery urgency, fleet constraints, and customer priorities. With advanced features like multi-stop sequencing, dynamic rerouting, and fleet capacity balancing, it enables dispatchers to manage more loads with fewer errors.

► **Dock Scheduling Launch**

In February 2025, FreightPOP introduced Dock Scheduling, a feature designed to optimize dock utilization, reduce bottlenecks, and improve coordination across shippers, carriers, and warehouse teams. The module offers real-time dock visibility, automated appointment booking, and analytics-driven insights into utilization

Key functionality includes dock scheduling, route optimization, freight audit and payment, predictive reporting, and warehouse coordination.

FreightPOP announced its transformation into FreightPOP AI, embedding AI into the platform's foundation rather than layering it on existing tools.

patterns. Users can manage multiple dock locations through a centralized calendar view, with integrations to ERP platforms such as NetSuite, Acumatica, SAP, and Sage to synchronize scheduling data.

► **WMS Launch**

In October 2025, FreightPOP introduced FreightPOP WMS, a Warehouse Management System that extends its AI TMS into warehouse operations, enabling true end-to-end supply chain control. The system unifies inventory, bin, and order management with freight planning, shipping, tracking, auditing, and analytics—all within a single intelligent platform. Designed for shippers, manufacturers, distributors, and 3PLs, FreightPOP WMS combines AI-driven automation, mobile barcode scanning, and intelligent workflow orchestration to streamline warehouse execution.

FreightPOP launched FreightPOP WMS, integrating warehouse and transportation operations into one unified platform.

Infios

Infios, a Körber company, is placed as a Core Provider in the 2025 TMS Technology Value Matrix, recognized for its Infios Transportation Management Solution. Infios serves organizations across food and beverage, healthcare, pharmaceuticals, retail, manufacturing, logistics service providers, and wholesale distribution. The Infios TMS solution sits within Infios' broader intelligent supply chain execution portfolio, which also includes warehouse and fulfillment, order management, labor management, yard management, voice and gamification, slotting, and modeling and simulation solutions.

Within its TMS product, Infios supports multimodal transportation across air, sea, rail, truckload, LTL, last mile, parcel, and intermodal, with connectivity to more than 100,000 carriers. The platform includes features for multimodal optimization, dynamic routing, load planning, advanced rerouting, dock scheduling, and scenario-based modeling. Infios also extends to final mile and direct store delivery, offering visibility into shipments, claims management, compliance, and proof-of-delivery workflows. Its global trade, freight audit, and payment functions further streamline international shipments and financial settlement.

The Infios Transportation Management Solution sits within the broader Intelligent Supply Chain Execution Suite, which also includes warehouse and fulfillment, order management, labor management, yard management, slotting, voice and gamification, and modeling and simulation capabilities.

Updates over the last 12 months:

► **Rebrand to Infios**

In April 2025, Körber Supply Chain Software officially rebranded as Infios, a move that reflects its ambition to deliver a more unified and forward-looking brand identity. The new name is derived from the

concept of infinity, symbolizing limitless opportunities and the interconnected nature of today's global marketplace. Infios positions itself as a provider of agile, intelligent, and constantly evolving intelligent supply chain execution solutions designed to adapt to the demands of a rapidly changing business environment. The company integrates order management, warehousing and fulfillment, and transportation management into a comprehensive suite, with a strong emphasis on predictive analytics, AI-driven insights, and end-to-end integration. By retaining close ties with Körber AG and continuing to leverage its consulting and automation expertise, Infios promises continuity for existing customers while setting a clearer path toward scalable and future-ready capabilities.

Prior to the rebrand, Körber completed its acquisition of MercuryGate International, expanding its TMS portfolio and adding roughly 25 percent to annual revenue.

► Acquisition of MercuryGate

Prior to the rebrand, in October 2024 Körber Supply Chain Software completed its acquisition of MercuryGate International, one of the most prominent providers of transportation management systems. The acquisition was a major move in the supply chain software market, adding roughly 25 percent to Körber Supply Chain Software's annual net revenue and significantly broadening its TMS capabilities. By integrating MercuryGate into its portfolio, Körber advanced its vision of delivering an end-to-end intelligent supply chain execution suite that spans order, warehouse, and transportation management. The deal enables customers to either adopt best-in-class standalone products or take advantage of integrated suites, depending on operational needs.

The acquisition also brought leadership changes, with Tim Moylan appointed as Chief Commercial Officer and MercuryGate CTO Beth Hendriks named as CTO of Körber Supply Chain Software. These appointments signal a commitment to accelerating innovation, scaling sales and demand generation, and driving faster time-to-value for customers. Hendriks, in particular, brings a track record of cloud strategy and product delivery from her prior roles at MercuryGate, Oracle, and JAGGAER, strengthening the company's technology roadmap.

Shiptify

Shiptify is placed as a Core Provider in the 2025 TMS Technology Value Matrix. The vendor supports organizations ranging from SMBs to large enterprises across industries such as consumer goods, retail, e-commerce, logistics, distribution, food and beverage, manufacturing, and pharmaceuticals.

Shiptify's platform is structured around three main solution areas: multi-carrier management, dock and warehouse appointment scheduling, and its TMS Control Tower. Multi-carrier management covers digital bookings, rate comparisons, and shipment tracking. Dock management provides collaborative scheduling, appointment portals, and supplier quality monitoring, while the TMS Control Tower supports order and transport planning, expenditure optimization, dispute management, and integration with partner technologies. Together, these modules give organizations a single, unified environment for managing transportation and related logistics activities.

The Shiptify platform is organized around three core solution areas: multi-carrier management, dock and warehouse appointment scheduling, and the TMS Control Tower.