



TMS+

Go beyond transport to optimize cost,
service & resiliency

Today's question becomes: How do you leverage data to automate and optimize across the full order lifecycle?

In the aftermath of the pandemic, supply chain inadequacies have been revealed in a new and starklight. Most found themselves ill-prepared for the magnitude of disruption in supply and demand, followed soon after by political unrest, labor and material shortages, and sharp inflation. These challenges didn't end with the pandemic; it's clear that disruption is here to stay as the so-called "new normal." What's also clear is that to not merely survive but thrive in the today's volatile, global market, companies need to take a more synchronized approach to their various business processes.

A synchronized or holistic approach means no longer shying away from complexity, no longer simplifying but embracing complexity. Businesses are no longer limited by the technology available to them. This shift to a holistic perspective is met with endless opportunities made possible by modern, unifying technology. Where companies typically plan and optimize transportation independently from distribution and from how they order products, cross functional visibility is a fundamental first step to converging these worlds. From there, leaders must determine what to strategically do with that information once they have it. How will they execute on it?



“Transportation doesn't exist in a vacuum – neither should your solution.”

The 'TMS+' is a more than a standalone Transportation Management System (TMS). It's a supply chain execution technology that recognizes companies today operate as multi party ecosystems, and that transport management activities are just one component of high-functioning supply chains.

Flawless execution relies on strategic planning; cost-effective operations require flexibility and agility to mode shift and access a full cost-to-serve picture beyond transport; high customer service levels rely on being capable to promise to factoring inventory levels and availability across all domains into transport planning and execution.

In this paper we discuss why a holistic, "TMS+" approach is integral to success in the new normal and beyond. We outline how the TMS+ breaks down silos to optimize across inventory, transport, logistics, and order management concurrently, intelligently, and in a timely and relevant manner for cost, service, risk, and sustainability.



Why are you looking for a TMS?

Logistics teams will seek out a TMS for various reasons depending on where they are in their digital journey. Some businesses want to eliminate manual processes, others may feel stuck in their legacy systems or struggle with carrier connectivity and access to capacity; if you've only connected digitally to a small percent of service providers, connecting electronically to those you still partner with manually can now feel too timely and costly to do.

There are also Businesses that, after having invested in the latest and greatest TMS with all the bells and whistles, find themselves using an outdated version, and upgrading to the latest instance can be as costly as purchasing a new system. In some cases, business simply grow and evolve and find that their once state-of-the-art TMS doesn't accommodate the new modes, geographical areas, or services they now require support for.

Whether it's a lack of efficiency, visibility, coordination, or flexibility and agility to adapt to change, initiatives to invest in a transport management solution all share a common goal: to leverage new opportunities for automation and optimization to improve OTIF and customer service levels at the best possible cost. The difference between short-term gratification and long-term, continuous success boils down to what specifically are you automating and optimizing to get those results?

Why consider the full life cycle?

Traditional TMS' are good at shipment planning, shipment execution, and shipment costing but they don't evaluate these areas from an order perspective.

The concept of a holistic approach is not a new one. For a long time now, analysts and practitioners have been talking about the need to break down silos between the different functions, as well as silos between the different stakeholders in the supply chain life cycle. For many companies doing so has simply been a challenge.

Looking across a typical systems landscape, there's difficulty in coordinating across different systems, both internally and across networks. Enterprise systems aren't always well integrated, with ERPs, warehouse management systems (WMS), order management systems, financial systems, and so on, each from different vendors.

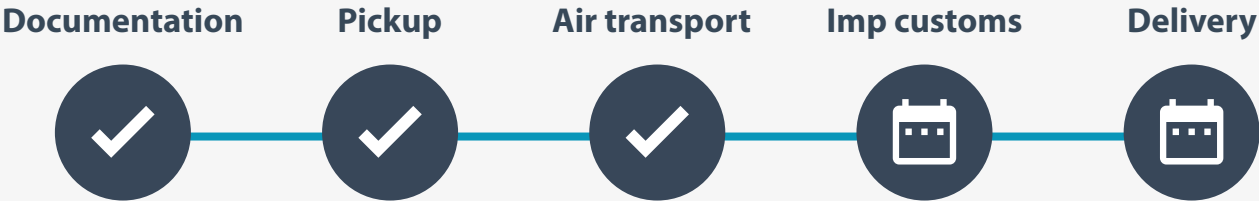
In addition to this, businesses using a 3PL must interface with that provider's systems, along with all the other service providers and customers across the network, such as multi-tier suppliers and warehouses.

The result is a hodgepodge of different systems with different interfaces, records, users, and processes that are somehow collectively responsible for seamlessly delivering an optimized 'micro supply chain' –or set of movements from allocation through delivery that reflect the best service at the best cost.

Each individual system may be highly adept at determining the optimal move for its own function and then pass that information along to the TMS, but they don't factor collective data and complexity to optimize across functions.

There's also a higher total cost of ownership that comes with implementing and maintaining multiple disparate systems.

An upgrade in one area leads to extra implementations and costs in other areas across order management systems, control towers, returns management systems, and so on. Each have their own maintenance schedules which need to be coordinated with multiple providers. It also means that during implementation, if you request additional functionality, those extra modules will hike up the cost, timeline, and project scope.



Why adopt a TMS+ perspective?

Transportation Management Systems were once implemented to drive transport cost reductions. A significant commercial shift in the market has placed pressure on even B2B organizations across diverse industries, like healthcare, automotive, and technology to place greater priority on customer service levels and deliver a "wow" experience. But driving the best experience at the best cost requires taking into account far greater variables than just transport: It's considering all inventory availability to be capable to promise while cost-efficient; it's understanding all the service level requirements from a single order perspective; it's coordinating all warehouse activities, such as picking, packing, and labelling, in addition to all transport activities; it's considering all possible

legs and modes of an order journey; and it's being agile enough to manage exceptions and disruptions fast when they occur. In other words, it requires orchestrating across the entire supply chain – across all logistics flows and all transportation steps, concurrently (not within isolated systems), in a multi-party business network. Simply optimizing your own fleet or your own sites is not enough; businesses must connect to other parties in their network and be able to see across, control, and optimize each order flow from an end-to-end perspective to drive operational excellence.

Multi-enterprise visibility on a single user interface

Multi-enterprise visibility is absolutely fundamental to ensuring all network parties have a single view on supply chain execution activities and are also able to coordinate and take action. By “execution” we refer to more than just shipment from point A to point B, but also the entire execution planning process, starting from order allocation, which requires a homogeneous view into inventory levels across systems, locations, and warehouses, through to the logistical steps that take place before shipment, such as booking, labelling, and dispatch. Once orders are shipped, views across all modes and legs of an order journey ensure teams have visibility and control over critical events and milestones like cross-docking, customs, import and export, or final mile, collections, and swap operations. Drill-down, granular views into every order’s details help teams fulfill service level requirements and quickly manage exceptions.

In terms of user interface, a TMS+ offers a unified experience, inclusive of all functions and settings across planning, execution, finance, and analytics. Unlike modular solutions and environments that often require logging in and out between systems or toggling between different interfaces, records, users, and processes, the TMS+ uses one single data model. This means a unified environment where the transportation management functions don't look different from the warehouse management functions nor the order management functions nor the inventory or returns management functions.

		Analytics		Planning		Execution		Financials	
TMS+ Capabilities	Standard TMS	On-Demand Reporting	Carrier/Partner Scorecard	Multi-Modal Rating	Continuous Optimization	Booking & Tendering	Event Management	Service/Rate Agreements	Freight Audit
		On Time, In Full (OTIF)	Operational Performance	Multi-leg Planning	Dynamic Carrier Selection	Document Control	Labeling & ePOD	Invoices Match Pay	Pre-Invoice/Self-Bill
		Inventory Performance	Supplier Order Performance	Available to Promise (ATP)	Inventory Planning	Visibility & Control Tower	Warehouse Capacity	Financial Control Rules	Order-Based Margins
		Predictive Performance	Multiple Order Metrics	Multi-Order Planning	Advanced Planning	Exceptions Management	Reverse Logistics	Total Landed Costs	Anomalies Detection



Continuous optimization of each and every order

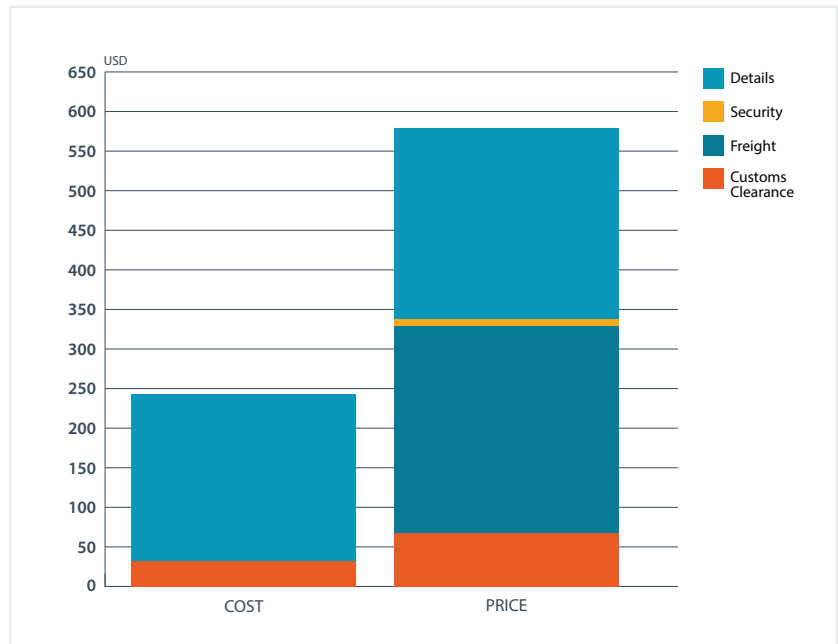
To be competitive and profitable in today's global market means optimizing across the full order lifecycle. Consistent OTIF delivery at the best cost must look beyond simply optimizing transportation management. Dynamic order allocation tends to be relegated to multiple instances of multiple ERPs and other enterprise systems. These systems don't have the capacity to process all the variables that go into dynamic sourcing around routing beyond the customers' needs and SLAs, like material and inventory availability in addition to transportation options across all modes and cost levels. The TMS+ computes these elements of order management concurrently to determine the optimal use of all resources and present the best approach within milliseconds.

The ability to continuously optimize on the level of a single order resolves the many inefficiencies that arise with batch optimization. Where teams would've had to wait for a 2pm batch or 8pm batch run, in an order-centric system, every order that comes in gets optimized and a special order can be isolated and treated as higher priority without it affecting a lower priority order that doesn't have to be immediately served. Moreover, orders can be planned and executed sustainably through dedicated calculations and metrics.

A TMS+ also frees teams from inefficiencies and manual, disjointed processes. Through defined workflows, multi-enterprise teams work together seamlessly in a digitally unified experience. Collaboration and coordination occur alongside the strategic guidance of business rules and machine learning, from order planning through supply chain execution – capturing and optimizing the activities of cross-functional teams at every node of the supply chain, so that customer requirements are satisfied, SLAs are met, the best cost levels are maintained, inventory is balanced, and teams are equipped to adapt to capacity constraints and other such challenges.

Finance control for a full cost-to-serve picture

The pressures of high fuel costs and contract rates alongside growing inflation, businesses are operating on thinning margins. CFOs understand that controlling costs requires a holistic look at finance, drilling down into all activities beyond just transport to warehousing, for instance, with picking charges, as well as multi-currency, multi-country duties and taxes. Where traditional transport management systems don't offer complex calculations, a TMS+ goes beyond transport costs to capture all types of costs throughout an order journey, including hidden costs, such as handling, customs, duties, and storage. Automating cost control over these end-to-end movements can save organizations on average 6-11% of total logistics costs. Businesses can further track and set revenue goals. For every single order, teams can set and track target margins for those activities.



Sustainability for greener supply chains

Intelligent automation and optimization across order, logistics, and transport management do more than improve efficiency and revenue –they empower businesses to make conscientious choices about who they partner with, how they monitor and control greenhouse gas emissions, and how they can support the circular economy.

For instance, converged order planning and execution helps maximize resources and reduce empty miles. Prebook and create service orders in anticipation of customer or shipping orders to book to capacity when possible, merging and matching as orders come in.





Each leg that contributes to GHG emissions (e.g. pickup, airtransit, and delivery) is calculated and allocated to the order, arriving at a total.

Teams can also input all requirements and constraints and apply smart route optimization and dynamic partner and carrier selection to plan and execute order flows against the lowest carbon footprint. Reverse logistics flows can be similarly optimized, alongside support for repair flow management, replacement services, and controlled recycling.

The TMS+ further empowers you and your network to continuously improve. Conduct extensive checks on your customers and suppliers and use configurable features to support network partners' local environmental initiatives. Use the dashboards to monitor network KPIs and share real-time analytics on CO2 emissions for all orders to support goals and make conscientious decisions.

The benefits of adopting a holistic technology strategy

Businesses today share a very similar problem with their technology strategy. Logistics managers will start thinking about transportation management systems to solve execution challenges, such as adding a missing mode or automating and optimizing carrier and route selection for shipments. But when CFOs or VPs of Supply Chain approach the holistic business process, they will find this siloed strategy at odds with their overarching goal of optimizing operations and reducing costs wholesale – across all functions, across the end-to-end supply chain. They find they are better served with a solution that combines the extended functions of order management and inventory visibility that inform transport management capabilities and competencies and that minimizes visibility gaps, response times, costs, and latencies.



As a multi-enterprise supply chain business network technology, the TMS+ interfaces with all the different systems businesses use to bring in relevant data, standardize this information on one platform, and applies smart business rules to automate and optimize across orders, inventory, and transportation. Running through the various scenarios around inventory, sourcing locations, and transportation options, the TMS+ is able to recommend immediate actions about the best way to route each order through its own micro supply chain, extending execution to encompass all necessary activities from the moment an order is received, including booking, labeling, and warehouse dispatch, through to the actual movement and delivery.

Today's challenges are much broader than just transportation. It's critical and competitive to begin thinking about managing the previously isolated functions of order, inventory, logistics, and transport concurrently. End-to-end supply chain visibility and execution control have company-wide implications. Holistic technology allows businesses to understand planning impacts, trace orders and shipments from allocation to delivery, and improve supply continuity, on-time shipments, and responsiveness to changes in supply and demand. This means better asset utilization and reduced overhead from fewer expedites. It means higher service levels at lower costs and greater customer satisfaction and loyalty. It means setting the foundation for seamless business growth and a platform that helps you easily scale with partners. Most importantly, it means that while you can be certain the future of supply chain is yet unknown, you can rest easy that you have a flexible and agile technology ready to receive it.



About Kinaxis Inc.

Everyday volatility and uncertainty demand quick action. Kinaxis delivers the agility to make fast, confident decisions across integrated business planning and the digital supply chain. People can plan better, live better and change the world. Trusted by innovative brands, we combine human intelligence with AI and concurrent planning to help companies plan for any future, monitor risks and opportunities and respond at the pace of change. Powered by an extensible, cloud-based platform, Kinaxis delivers industry-proven applications so everyone can know sooner, act faster and remove waste. Don't believe us? Ask us to prove it. Learn more at [Kinaxis.com](https://www.kinaxis.com).



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