

An Executive White Paper

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# Five Keys to Transportation Planning and Optimization Success

*Delivering a tangible business advantage*



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# Five Keys to Transportation Planning and Optimization Success

## Delivering a tangible business advantage

### Introduction

Automating and optimizing transportation management has become essential for companies in today's more fluid, global, omni-channel world.

Reducing freight costs continues to be a primary motivation for investing in Transportation Management Systems (TMS), but securing capacity and improving overall transportation operating efficiency are becoming strong motivators, too.

TMS suites often extend to include optimizing across multiple modes of transportation, paperless execution, freight accounting with auditing or self-pay functionality, tactical modeling, strategic planning and sourcing, and procurement. With supply chains becoming increasingly global, transportation management solutions must grow to include global logistics capabilities, which are important factors in understanding your cost-to-serve metrics.

The ability to think strategically while exploiting tactical opportunities has become a crucial challenge for all companies with products to deliver.

This paper reviews the latest business challenges that are driving initiatives in transportation. It outlines five key factors in achieving transportation success, controlling costs, taking charge of the transportation process, and ensuring outstanding customer service.

*Omni-channel capabilities must be incorporated into transportation management strategies.*

## Challenges Driving Transportation Optimization Initiatives

Today companies must solve an ever more complex transportation puzzle within the global supply chain context and global economic environment. Transportation management systems have become an essential basis for best-in-class companies, suppliers, and customers to plan, automate, optimize, and collaborate on challenges such as:

### Controlling Cost

When inbound and outbound transportation costs are bundled, they often represent the single largest costs that supply chain teams face. Inbound costs are frequently overlooked, but best-in-class companies know they can compete more effectively by reducing these costs while maintaining service levels.

### Embracing Omni-Channel

Service levels are tougher to optimize in an omni-channel age. Logistics flows now extend to the residence, requiring a more granular look at transportation flows. In some markets Same Day and Next Day delivery capabilities with varying levels of service are required in order to compete with the likes of Amazon, Walmart and others who have launched these capabilities in the marketplace. This new type of service and the associated cost must be understood and incorporated into transportation management strategies.

### Meeting Multi-enterprise requirements

The need for robust internal and external collaboration has become a commonly accepted requirement across the enterprise, for both inbound and outbound flows, spanning carriers, vendors, 3PLs and customers.

### Utilizing data to improve operations

It's one thing to have a general "awareness of events" as items move from overseas onto the ocean, and from ocean to rail, fleet, TL and LTL, and on to distribution points, and in some cases to the customer. But it has become crucially important to have real visibility into these events and their costs. Best-in-class organizations know visibility and proactive planning provide maximum flexibility.

*Five keys:**Contract and rates management**Routing and SLA compliance**Mode shift, aggregation, consolidation**Route and stop optimization**Settlements and payments*

## Five Keys to Transportation Optimization Success

Transportation management systems uniquely address and overcome the challenges outlined above, allowing supply chain teams to be more responsive and plan strategically to stay cost-efficient. Here are five key areas in which an advanced transportation management solution can reshape an organization's competitiveness and profitability.

### 1 Contract and Rates Management

**What to do:** Work with partners to establish rates, anticipated volumes, and capacity requirements. With rates for all modes and carriers and their service levels in a centralized database, the rating engine of the TMS will automatically calculate costs and provide cost/service/transit time information for qualifying carriers.

**How to do it:** Capture costs as items move through supply chain and verify that they comply with contracted rates. A sophisticated rating engine must analyze all rate types and options to calculate optimal-cost shipping solutions incorporating both inbound and outbound shipments.

**Result:** Systemic improvements in supply chain efficiency from automatically planning least-cost, most efficient shipments across multiple modes and carriers, spanning rail, truck, LTL, parcel, and intermodal alternatives. Ability to clearly evaluate cost to serve.

### 2 Routing and Service Level Agreement (SLA) Compliance

**What to do:** Base contracted rates on a correlated set of volumes by lane and mode.

**How to do it:** Ensure fulfillment at the desired level of service at the targeted cost.

**Result:** Actual shipping execution complies with the plan as intended while taking all constraints into account. Validates selection of the lowest cost carrier resources that meet extended cost and transit time goals. If necessary, alternate modes or carriers can be identified.

*An integrated phased planning solution spans both demand-side and supply-side in one comprehensive, shared system.*

### 3 Mode Shift, Rate/Lane Aggregation and Consolidation

**What to do:** Periodically assess the ability to shift modes, and perform rate and lane aggregation and consolidation.

**How to do it:** Aggregate, consolidate, and streamline the supplier mix to take advantage of available volume/discount/service level opportunities as conditions ebb and flow.

**Result:** Systematic approach to planning, executing and analyzing shipping activities to gain continuous improvements. System recommends potential mode shifts, sourcing changes and channel and lane shifts.

### 4 Route and stop optimization

**What to do:** Optimize and track all modes (e.g. multi-stop trucks, inter-modal, rail)) to carry loads on both inbound and outbound routes.

**How to do it:** Apply sophisticated transportation management technology to drive a “continuous move” approach, which is a more complex optimization opportunity than one-way scheduling. Understand and track shipments in motion, marry shipments in route with planned shipments opportunistically to maximize carrier efficiency.

**Result:** Comprehensive visibility to transportation in motion that tracks all shipments in transit. Proactive rather than reactive problem solving.

### 5 Settlements and Financial Payments

**What to do:** Capture and verify actual freight cost of every shipment, and allocate cost to the channel, customer, and product. Create a feedback loop that links results back to strategy and tactics.

**How to do it:** Take a look at actuals, evaluate how your locations and carriers are performing, and implement key performance indicators that support your whole business. This often overlooked functional area is essential for tying the actual transportation cost to the shipment and thus the allocation of that freight cost to the orders that were shipped, the channel, and their products.

**Result:** Discover of how well the organization has done against contract rates, understand costs by channel and customer, ascertain the level of compliance achieved by location and mode. Leads to continuous improvement and year-over-year benefits.

**Transportation Imperative:**  
*Inbound transport cost  
 In many cases, inbound freight costs are not even broken out, leaving the full cost of transportation buried in the product price. Whether the shipments terms are pre-paid or collect, these costs often “fly under the radar,” and often can’t be allocated to the channel or customer, posing a real problem. Companies should seriously consider taking some control away from the supplier by managing the inbound transportation flow, optimizing inbound freight and carrier selection, and gaining visibility to the shipment in transit and the associated transportation cost. Also, the ability to connect inbound and outbound shipping allows the company to take advantage of carrier economics.*

## The Case for Transportation Management Solutions

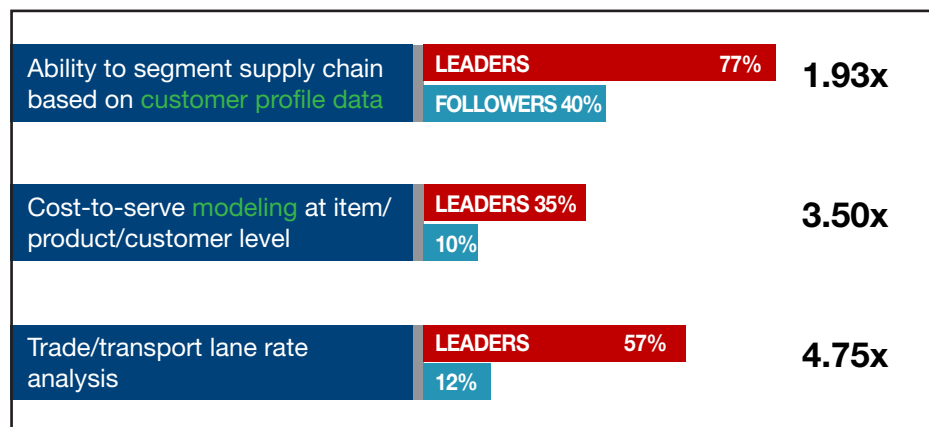
Research conducted by the Aberdeen Group confirms a direct link between the degree of automation best-in-class companies have in place and excellence in attaining complete and on-time deliveries and orders, as well as controlling per-unit landed cost and cutting the number of out-of-stock occurrences. (See Figure 1.)

Performance Metric	Leaders	Followers
Orders delivered to customers complete and on time outbound	95.4%	86.4%
Orders received from suppliers complete and on time	94.6%	84.4%
Change in total landed per-unit cost in past year	-0.5%	+4.5%
Change in frequency of out-of-stocks in past year	-7.5%	+0.9%

*Strategic Inbound Optimization: Linking Costs/Events to Improve P&L, Aberdeen Group, August, 2014*

**Figure 1. Automation gives leaders the edge**

As Figure 2 shows, best-in-class companies are almost twice as likely to segment the supply chain based on customer profile data, and are three and a half times more able to do cost-to-serve modeling at the item, product, and customer level. Leaders are almost five times more likely to do trade and transport lane rate analysis. Given that transport cost is the single largest cost in total cost-to-serve, it is paramount to measure rates and analyze them against your competition, other lanes and modes of transport, as well as by customer and segment.



*Strategic Inbound Optimization: Linking Costs/Events to Improve P&L, Aberdeen Group, August, 2014*

**Figure 2. Key capabilities that distinguish leaders from followers**

**Transportation Imperative:**

*Channel of preference*  
**To compete in the global marketplace, companies must be able to serve their customers through the logistics channel of preference. Companies cannot rely on a process that assumes once shipments arrive at a DC, all deliveries are going to be handled “by someone else.”**  
**To succeed, transportation managers must become collaborative and have the ability to honor the brand-holder’s preferences, even if that means shipping to the end customer. To remain unwilling or unable to ship straight to the residence at a competitive cost and service level may actually threaten viability.**  
**Supply chain teams should consider this a root requirement to run the business, not a “nice-to-have.”**

**How Best-in-Class Companies Benefit from TMS Optimization**

Best-in-class companies reap rewards by achieving increased visibility, collecting granular shipment-by-shipment and item-by-item information for both shipment events and costs, and proactively leveraging optimization tools to take advantage of opportunities. Figure 3. Highlights several benefits.

**Spot bid capability.** Automation tools allow transportation teams to place a load out for bid or respond to a request by way of an electronic exchange. The exchange allows companies to take advantage of price breaks as well as expanding their options beyond the group of carriers they typically work with.

**Dynamic hub optimization.** Allows time-sensitive shipments comprising multiple products to be broken apart so some items can be directed through a 3PL to flow directly to the consumer label. This requires a degree of in-depth visibility, cost awareness, collaboration, and real-time control that can only be provided by a transportation management system.

<b>1.59x</b>	<b>More likely to automate spot bid capability</b>
<b>1.14x</b>	<b>More likely to automate suppliers and inbound carriers’ information exchange</b>
<b>1.14x</b>	<b>More likely to automate support for dynamic hub optimization</b>

*Strategic Inbound Optimization: Linking Costs/Events to Improve P&L, Aberdeen Group, August, 2014*

**Figure 3. Sample benefits best-in-class companies derive from automated transportation management solutions**

*Transportation management solutions differentiate the company's service capability and generate benefits that go straight to the bottom line.*

## **Conclusion: Transportation Management Solutions Drive Performance**

Transportation management systems have become an essential platform for best-in-class companies, suppliers, and customers to plan, automate, optimize, and collaborate. Leading supply chain teams exploit their transportation management systems to control costs, take charge of the transportation process, and ensure outstanding customer service. They focus on addressing both outbound and inbound costs, while adopting omni-channel capabilities, meeting multi-enterprise requirements, and utilizing data to improve operations. For them, it is crucial to think strategically while exploiting tactical opportunities.

Transportation management solutions can create game-changing improvements that differentiate the company's service capability and generate benefits that go straight to the bottom line. Best-in-class companies exploit their TMS tools to optimize five key transportation areas:

- Contract and rates management
- Routing and SLA compliance
- Mode shift, rate/lane aggregation and consolidation
- Route and stop optimization
- Settlements and Financial Payments

Best-in-class companies handle the "big data" created by shipments, customers, items, and products that flow day-in and day-out, and measure performance over time. They understand how transportation's interconnected costs ebb and flow with the other costs in the supply chain (e.g. fulfillment), particularly as the organization steps up to support straight-to-the-home shipments and parcel transport in an omni-channel environment.

As the transportation component of supply chain operations—and cost to serve—becomes more and more dynamic, it is paramount to stay on top of—or ahead of—its ever-accelerating evolution. This makes adopting the right transportation management solution the biggest key of all.



## Logility Voyager Transportation Planning and Management™

Logility's industry-leading solution automates and optimizes the end-to-end transportation process, from planning to delivery and settlement. Capabilities include advanced freight management, load building/optimization, mode/carrier selection, load tendering, shipment tracking, freight rating and auditing, and real-time logistics management. Its web-based portals facilitate carrier and vendor collaboration, while advanced analytics drive increased efficiencies for TL, LTL, rail, inter-modal, ocean, parcel and air shipments. Logility Voyager Transportation Planning and Management handles the toughest challenges, such as fuel price fluctuations, tight capacity, customer demands and omni-channel imperatives.

## About Logility

With more than 1,250 customers worldwide, Logility is a leading provider of collaborative, best-of-breed supply chain solutions that help small, medium, large and Fortune 500 companies realize substantial bottom-line results in record time.

Logility Voyager Solutions™ is a complete supply chain and retail optimization suite. Its performance monitoring architecture provides a comprehensive range of solutions spanning retail merchandise planning and allocation; demand, inventory and replenishment planning; sales and operations planning (S&OP); supply and inventory optimization; manufacturing planning and scheduling; and transportation planning and management.

For more information about Logility, call 1-800-762-5207 or visit [www.logility.com](http://www.logility.com).

