The New Business Case for Inbound Transportation Management

Cost reduction is key but so is lead time reduction, improved production scheduling, supply chain visibility and more.

Sterling Commerce
An IBM Company

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Executive Summary

As prices remain under pressure, companies continue to seek ways to drive down operating costs through business process improvements. But one process known to yield exceptionally high return-on-improvement is often overlooked: inbound transportation management.

Inbound transportation management is where companies take control of inbound freight from suppliers—consolidating loads, planning continuous moves, and negotiating with carriers directly instead of paying for whatever shipping services the supplier chooses. Known as 'freight collect,' the buyer owns the carrier relationship and is responsible for shipment planning, tendering and payments. Direct savings result from more efficient use of equipment and fuel, fewer less-than-truckload deliveries, and lower freight rates due to increased volume. This can add up to millions of dollars a year, all of which go straight to the bottom line. Even so, transportation cost reductions are just the first installment of a much larger return. The greater benefit is realized up and down the supply chain in the form of:

• lead time reduction and decreases in lead time variability
• lower inventory levels
• end-to-end visibility from order to payment
• management by exception
• improved efficiency in the receiving process
• improved manufacturing processes

All of this begs the question, why have companies been slow to implement inbound transportation management programs? One problem is that the cost of inbound transportation is often bundled with the cost of goods, so all the excess and unnecessary spending happens under the radar of financial officers. Another problem is that the program has no natural home within existing business units. Inbound freight contracts are typically negotiated as part of the procurement process, whereas the tools and expertise for controlling transportation spend reside within the transportation unit. But the biggest hurdle in most companies has been a lack of infrastructure to adequately support collaboration with suppliers. Transportation concerns tend to rank low on the list of IT priorities and, historically, the general assumption was that the level of connectivity and communication required to run an inbound program would be too difficult and costly to put in place.

Today, these are minor challenges. New on demand technologies have made inbound transportation programs much easier to implement by:

• facilitating communications with carriers and suppliers
• bridging internal gaps between procurement, transportation and supply chain management
• creating reliable data and automating data flow among all parties
• providing end-to-end visibility into order and shipment status

They have, in fact, created a new business case for inbound transportation management where the ROI is higher and faster, the upfront investment is minimal, and the benefits impact core operations. Within three to six months, most companies will see double digit savings in transportation costs alone; they will also see a reduction in inventory, a likely increase in inventory turns, and a considerable reduction in firefighting—which leads to lower production and fulfillment costs.

This white paper addresses the concerns of CFOs who are looking for a solid, cost-cutting strategy with a minimum of risk. It also addresses the questions of supply chain, transportation and procurement executives who need to lower costs in their functional areas and are weighing the feasibility of an inbound transportation management program.

Drawing from published case studies, we examine the benefits of inbound transportation management both in terms of direct cost reduction and impact on downstream processes.

We also look at lessons learned by early adopters, such as plugging into existing networks of suppliers and carriers and using business analytics for continuous improvement. Finally, we'll look at technology requirements at a high level and explain how new, on demand transportation management system (TMS) solutions have taken a broader focus, to facilitate processes beyond the transportation department.

For example, some inbound TMS solutions are closely integrated with order information, so they can compare "ready to ship" items with the actual items on the order, notifying all interested parties of shortages or variances well in advance. They also enforce vendor compliance with packaging and labeling requirements, to meet the needs of receiving and warehouse personnel. In fact, the benefits to production, purchasing, and inventory management are so pronounced, the business case for inbound transportation management often begins outside of the transportation department.

The Hidden Costs of Inbound Transportation

If you are currently leaving all your inbound transportation arrangements to your suppliers or vendors, you are probably spending more on transportation than you need to. Analysts estimate that the amount companies overpay on inbound is somewhere between one and two percent of the total cost of goods.

This gap between what inbound transportation should cost and actual cost can be boiled down to a few words: suppliers' transportation decisions are not in your best interest. Some of your suppliers and vendors treat the cost of transportation as a profit center, in that they charge more than they pay for transportation. In many cases this is to hedge against uncertainties in the transportation process, such as fuel increases or delivery delays that result in penalties.

But even when there are no intentional markups in the cost of transportation, suppliers will naturally make decisions based on their own business needs, not yours. For example, manufacturers and wholesalers typically want to clear their docks at night. Therefore they will choose to ship using the more expensive option of less-than-truckload (LTL) just to get loads off the property.

The waste—in terms of cost, efficiency and fuel—multiplies quickly when you think of several suppliers shipping LTL. For example, a company might have five suppliers in close geographical proximity who are shipping goods the same day. Instead of filling a single truck with product from all five suppliers, the buyer is forced to pay the much higher cost of five separate LTL shipments.

In short, when the supplier owns the carrier relationship and is responsible for the planning, routing and optimization of shipments, the buyer loses any opportunity to consolidate loads and lower shipping costs.

How Inbound Transportation Management Works and Where the Savings Come From

An inbound transportation program reverses all this. Now the buyer owns the carrier relationship. Before the goods are ready to ship, the supplier sends the buyer the ship quantity, ship-from location, availability date, weight and other attributes. (See Figure 1, Inbound Transportation Management Process, next page.) The buyer uses this "ready to ship" information to determine the routing, perform the optimization and select and tender to the carrier. The buyer then sends the routing instructions, pick-up date and carrier information back to the supplier so they can be ready to load the truck when it arrives.
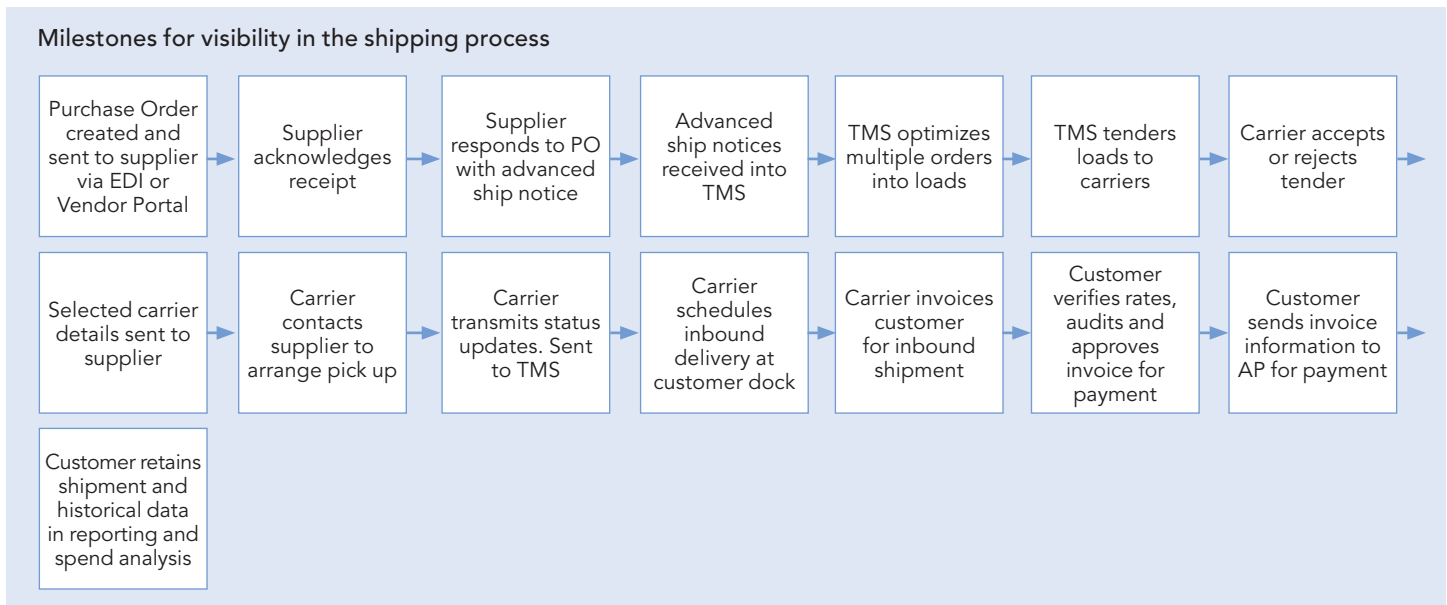
Milestones for visibility in the shipping process

Purchase Order created and sent to supplier via EDI or Vendor Portal	Supplier acknowledges receipt	Supplier responds to PO with advanced ship notice	Advanced ship notices received into TMS	TMS optimizes multiple orders into loads	TMS tenders loads to carriers	Carrier accepts or rejects tender
Selected carrier details sent to supplier	Carrier contacts supplier to arrange pick up	Carrier transmits status updates. Sent to TMS	Carrier schedules inbound delivery at customer dock	Carrier invoices customer for inbound shipment	Customer verifies rates, audits and approves invoice for payment	Customer sends invoice information to AP for payment
Customer retains shipment and historical data in reporting and spend analysis						

Figure 1. Inbound Transportation Management Process

Petco Optimizes Inbound Logistics

Petco, a nationwide specialty retailer for pet supplies, needed to move from prepaid to collect and gain real-time visibility to their inbound supply. Working with Sterling Commerce, Petco was able to:

- Onboard all EDI and non-EDI, suppliers
- Gain forward visibility into ready-to-ship orders, allowing inbound planners and buyers to see their expected shipments
- Enforce contract rate compliance to reduce costs
- Automate auditing processes and gain detailed reports of freight payments
- Improve load building to reduce transportation costs by $5-8 million annually

With a good on demand TMS, all necessary negotiations with carriers and suppliers are automated. Those with limited technological capability can communicate through a single-connection Web portal. When all transactions are electronic, data is not only more accessible, it is more accurate. This is essential because the quality of the data will drive the performance of the process.

Freight costs are reduced in three important ways. First, companies are able to leverage their total transportation spend to get competitive rates. Secondly, using optimization technology, they can convert line-haul and less-than-truckload shipments into full truckloads or continuous moves. According to ARC, savings per shipment can range between 5 and 35 percent. And finally, companies that have private fleets can take advantage of their own assets for inbound as well as for outbound shipments, using inbound shipments as backhauls.

Lead Time Reduction and Decreases in Lead Time Variability

Other cost savings result from upstream and downstream supply chain processes, the largest being a reduction of inventory. Here's why: When suppliers control inbound transportation, companies may not know how much of their order has shipped until the truck pulls up to the dock. Poor visibility to the status of orders and shipments creates uncertainty, which companies typically offset by carrying excess inventory.

Conversely, when companies take control of their inbound transportation they know exactly when an order will ship, the actual quantity shipped, and when it will arrive. This enables them to plan and respond to deliveries more effectively, and reduce safety stock without creating out of stocks. In the case of WalMart, who recently announced an initiative to control their inbound freight (see sidebar on next page), lead time predictability is expected to save $500 million to $2 billion in inventory reduction. While

Benefit of Lead Time Predictability at WalMart

"Gaining visibility of the inbound freight before it is picked up allows inbound planners to schedule the freight to match what is needed in inventory replenishment and manage labor needs—adding predictability and performance.

In the case of WalMart the benefit of added supply chain reliability could be—on the low side—$500 million in inventory reduction. On the high side, as much as $2 billion in lower inventories is possible. The resulting impact on cash flow and operating income would be equally significant.

However, this kind of program and the benefits are not unique to WalMart. This level of inbound control is the holy grail of logistics and supply chain management to any large retailer and many large manufacturers in the US."

— Excerpt from the June 30, 2010 *Supply Chain Digest* article "Understanding WalMart's Inbound Freight Strategy" by David Schneider, president of David K. Schneider and Associates.

no one moves as much inventory as WalMart, companies of all sizes can benefit from the same tactics.

Inventory turns increase as well, which has a direct impact on revenues. This is because you can to react to changes in demand during the lag time between when an order is placed and when it is delivered. When your suppliers own the shipping process, there is not much you can do about changes in the demand profile during this lag time. But when you own the inbound transportation process, you can make routing changes right before shipping to ensure product will be delivered to the areas where the most demand exists.

In summary, when you take control of your inbound deliveries, you can design them to meet your own needs. That is, you can shorten lead times, synchronize deliveries to demand, and have materials or products delivered within tight windows of time to significantly reduce the amount of inventory on hand.

End-to-end Visibility

Today's TMS solutions go beyond transportation concerns to provide visibility into the entire order and delivery process to everyone who needs it. This includes procurement, warehousing, production scheduling and supply chain managers as well as transportation managers.

This extended, role-based visibility is a huge game changer that cuts costs and improves efficiency all across the supply chain.

For example, TMS solutions are very good at rating and re-rating shipments based on all available scenarios to calculate best landed cost. (The "landed cost" of a product is the sum of all costs associated with making and delivering that product to the point where it produces revenue.) Transportation costs that add to the landed cost of a product include freight costs, fuel surcharges, assessorials such as detention fees, and so on. These costs can be substantial in the aggregate, yet they rarely come into play in the vendor selection process because procurement has no visibility into the TMS.

But when you make these transportation costs available to procurement, through extended role-based visibility, you enable them to make better buying decisions. Instead of selecting vendors based on catalog prices alone, they can readily see the true cost of working with one vendor over another.

 Without visibility to inbound freight and processes, it is hard to identify and take corrective action on the process gaps that cause variability in a supply chain. This lack of visibility creates a flurry of phone calls, faxes and e-mails requiring full-time staff dedicated to firefighting. Conversely, the kind of end-to-end order visibility offered by today's TMS systems, gives companies unprecedented control over orders in transit.

For example, True Value Hardware needed to track products through a highly complex sequence of movements from the factory to the departure port, to the receiving port, through customs, to the carrier (rail or truck), to the deconsolidation center, and finally to regional distribution centers. As Figure 2 illustrates, there are potential "time bombs" at every juncture.

Current Import Flow

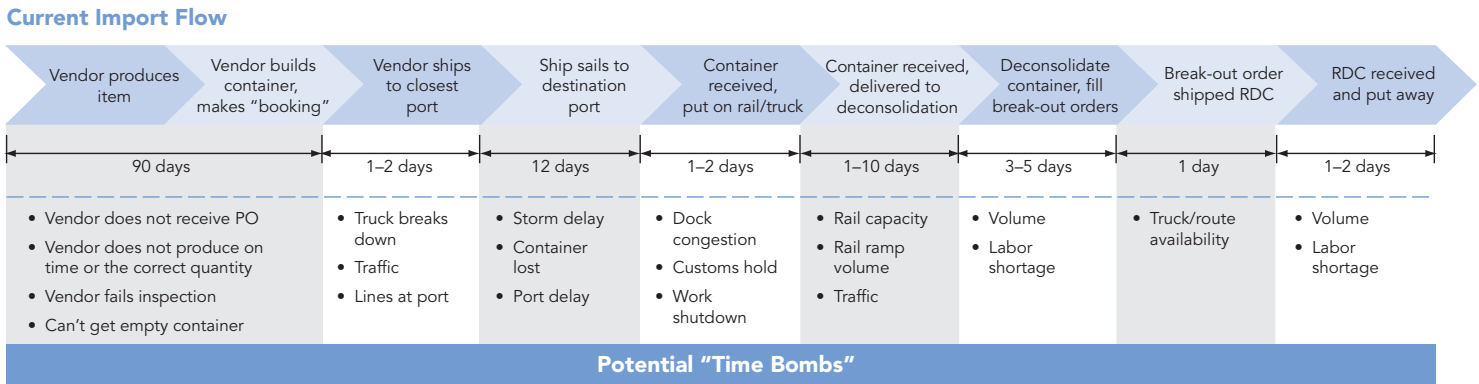| Vendor produces item	Vendor builds container, makes "booking"	Vendor ships to closest port	Ship sails to destination port	Container received, put on rail/truck	Container received, delivered to deconsolidation	Deconsolidate container, fill break-out orders	Break-out order shipped RDC	RDC received and put away
90 days		1–2 days	12 days	1–2 days	1–10 days	3–5 days	1 day	1–2 days
• Vendor does not receive PO • Vendor does not produce on time or the correct quantity • Vendor fails inspection • Can't get empty container		• Truck breaks down • Traffic • Lines at port	• Storm delay • Container lost • Port delay	• Dock congestion • Customs hold • Work shutdown	• Rail capacity • Rail ramp volume • Traffic	• Volume • Labor shortage	• Truck/route availability	• Volume • Labor shortage
Potential "Time Bombs"								

Figure 2. True Value Inbound Supply

With end-to-end visibility, True Value was able to get out of troubleshooting mode. Because they could now see the exact status of any shipment at any point in the process, they were able to reduce lead times by 57%, increase fill rates by 10%, reduce backorders by 85%, and improve service to all their customers. (See side bar on next page.)

To give companies optimum visibility, next generation on demand TMS solutions have changed in two important ways. First, they combine all EDI documents and input from all Web-based forms to provide a single data source compiled from order and transportation milestones across the supply chain. That means all players—suppliers, vendors, buyers, carriers—are operating from a single source of truth.

Secondly, they filter that source of truth into customized dashboards that selectively present information based on who needs to see it and their role within the supply chain. At the same time, they shield people from information overload and irrelevant information. So, for example, procurement managers can see if and when an order was acknowledged, how much of the order is actually shipping, and when the order will arrive. But they do not have to look at all the details of load tendering and routing.

These role-based views give managers easy access to the information they need to efficiently manage their specific part of the order and delivery process. They can also track their own KPIs to improve the part of the process that falls within their domain. For example, procurement managers will be interested in the performance of suppliers— are they consistently slow to load product, causing the company to pay surcharges to carriers? Do they consistently ship short orders? Are they compliant with company requirements for packaging and labeling or do they frequently cause delays at the warehouse?

Benefit of Increased Visibility at True Value

"The supply chain can be chaotic. Often we felt like we're in firefighting mode. What we're able to do now, [with visibility] is get out of firefighting mode and proactively manage and improve our supply chain.

We've seen a 20% reduction in our lead times, which is important, because we can get the product there sooner and at lower cost. We are also seeing [improvement in] that important metric, that fill-rate metric, that measures the service to our members and our customers. We're not only at goal, we're at record levels."

— Greg Linder
    Director of Supply Chain Operations, True Value

Working off a subset of the same data, transportation managers can track carrier performance. Is one carrier prone to equipment breakdowns? Are the drivers consistently on time? Are they meeting reporting requirements or are they continually slow to report delays? How does a carrier's rate of acceptance fall within tolerance levels? How are they performing against national averages? Are a carrier's low rates offset by inconsistent performance?

With role-based visibility, each department can make decisions based on the whole picture, while maintaining their focus in their own area of expertise. This leads to better decisions, better service and a significant reduction in costs across the board.

In summary, visibility benefits are derived both from the breadth of data available to interested parties across the supply chain and the way that data is presented within the context of solving problems, measuring performance and facilitating planning.

Management by Exception

Hand in hand with supply chain visibility is the whole concept of management by exception. In very large supply chains, it would be futile to monitor every touch point of every order as it moves through the supply chain under optimum conditions. What's important is to be alerted in real time when events go against plan. A TMS with extended, visibility and role-based alerting enables companies to successfully manage by exception. As in the True Value example, they can set up customized milestones where problems are likely to occur and define very specific alert triggers such as "notify the following people if this shipment fails to be unloaded at the warehouse within 48 hours." These customized alerts outperform traditional reporting systems because they happen in real time, giving everyone across the supply chain more time to react. Cost savings here, and they are significant, result from rapid response to conditions that could escalate into major problems such as line shut downs or lost customers.

As an example, if a supplier cannot fulfill an entire order, or cannot deliver at all, everyone who needs to take action will be alerted instantly. Procurement can reorder or find another source of supply, warehouse workers can fulfill from safety stock, and production managers can adjust their schedules according to when raw materials will be on hand.

Improved Efficiency in the Receiving Process

At the warehouse level, taking control of inbound supply offers so many benefits, it is not uncommon for warehouse managers to be the first to recommend or take ownership of an inbound transportation initiative.

With control of inbound supply, warehouse personnel can greatly improve service to their customers. If the product needed to fill an order has been picked up, the warehouse manager knows exactly when the truck is expected and can plan accordingly. If the truck has problems en route to the DC, warehouse managers will be alerted in time to adjust work orders.

Eliminating Bottlenecks at Tractor Supply Company (TSC)

"Before, TSC had no inbound shipment visibility so the company often experienced bottlenecks at its distribution centers. Now the company manages container flow and knows exactly where all shipments are at any given point in time. We have been able to reduce pickup lead time to one day. This has translated into less safety stock in the system. and a net transportation savings of $500,000."

— Mike Buttarazzi
Director of Transportation,
Tractor Supply Company

Other key benefits to warehouse operations include:

Reduction in overhead costs

When notification of inbound supply is automated, warehouses require fewer resources to do the same amount of work or can assign resources to more value-added work. This is because order status confirmation by phone or fax is replaced with instant and accurate information about incoming orders, while automated appointment scheduling enables better planning.

More balanced workload

The appointment scheduling functionality of an on demand TMS can also make the receiving process run faster and more smoothly. Warehouse managers can level out flow through so it's more even on a day to day basis, avoiding the typical Monday morning backup of trucks.

More cross docking

With better insight into all incoming loads, warehouse managers can identify more cross-docking opportunities. They can schedule cross docking of inbound shipments after hours, increasing utilization of assets without disrupting outbound operations.

Less damage

Hand in hand with cross docking are opportunities to reduce the time and touches required to move inventory to stores or materials from the dock to the assembly line. This reduces incidents of inventory loss and damage.

More efficient operations

A TMS that enforces vendor compliance with labeling and packaging requirements can lead to huge efficiency gains, especially when RFID is in play. In fact, some TMS systems are flexible enough to enforce any requirements necessary to maintain or improve the efficiency of your receiving, put away, inventory or accounting processes. For example you can enforce requirements for marking, labeling, tagging, bar coding, Bill of Lading preparation, Garment on Hanger shipments, direct to floor merchandise, pallet specifications, contacts, purchase order guidelines, hazmat and back order processing.

Improved Manufacturing Processes

If you are a manufacturer, streamlining and controlling inbound transportation is the easiest way to remove costs from your goods and lower your delivered price while maintaining target margins. By having inbound shipments in the TMS, manufacturers have greater visibility to what parts are in transit and when they'll arrive, which streamlines manufacturing processes and improves labor planning at receiving.

An interview published in *Supply Chain Digest* featured observations from three manufacturers: John Deere, WMS and Continental Mills, who, at the time of interview, were in the early to middle stages of taking control of inbound freight. All three agreed that it was easier to sell the concept to management by showing how the increased visibility could reduce risk and lead to greater efficiency in the manufacturing process, rather than talking about freight savings alone.

The representative from Continental Mills said that knowing when a delivery was going to be late allowed them to "develop a Plan B instead of shutting down a line." WMS said that the advance notice gave them the flexibility to have some parts delivered directly to the production line instead of storage, which accelerated production. The logistics director of John Deere said that the company had a routing guide but no way to enforce it and no visibility into the level of compliance. So suppliers often shipped goods any way they wanted to. "I think there was a lot of the 'load for lunch' going on," he said "and a lot of the suppliers' decisions were not in our best interests." By taking control of inbound, the company expected to save 5% on inbound freight costs the first year and even more later, which is considerable given Deere's high freight volumes.

A case study from HJ Heinz tells a similar story. Heinz was looking for a TMS solution that had a background in managing inbound raw materials, that could handle freight payment, auditing, and claims management, and that had the flexibility to work with a full range of over 2,000 suppliers. By taking control of their inbound supply, Heinz realized a 10% reduction in transportation costs in addition to many other benefits. (See sidebar.)

How to Increase Your ROI

Companies that have taken control of their inbound supply have done so with varying degrees of success. As with any new process, there is a right way, a wrong way and a better way. Here are some guidelines, compiled from lessons learned from early adopters, that will help you avoid pitfalls and get the highest return on your investment.

Tap into existing networks

Choosing a company that can get your suppliers up and running quickly and that can plug you into large, existing networks of suppliers and carriers, will cut months off your implementation time and tens of thousands off your startup costs.

Look for a TMS company with a background in business collaboration and experience in onboarding suppliers. They are more likely to offer instant connectivity to 80 to 90% of the carriers you work with, and to some of your suppliers. Also, a large network of carriers will produce more valuable business intelligence when you are collecting benchmarks for continuous improvement. For example, most TMS systems will measure carrier performance over time and show you how they rank against one another; but when your TMS is connected to a network of thousands of carriers, you can also measure carrier performance against nationwide benchmarks, gaining a true understanding of whether or not your carrier network is performing at optimum levels.

Even with access to the largest networks, some partner onboarding will be required, so make sure your TMS provider has the tools and experience to quickly and accurately bring suppliers and carriers into your inbound transportation program. Onboarding tools should accommodate EDI-capable companies as well as small companies with limited technical expertise. Some training will be necessary, so again, look for proven expertise in the whole roll-out process. Depending on the know-how of your TMS

Benefits of controlling inbound transportation at HJ Heinz

- Achieved end-to-end visibility in all aspects of inbound freight

- Set up alerting and scorecarding of supplier performance

- Gained better control of total landed costs by benchmarking costs and accessing data from carriers and suppliers from within their TMS

- Gained sufficient access to performance management data, eliminating bad behavior of repeat offenders and tailoring processes to unique business scenarios

- Realized a 10% reduction in transportation costs through improved efficiency

provider, partner onboarding can take a few hours or it can delay your time to payback indefinitely.

Look for built-in business intelligence
While the benefits of inbound transportation management are substantial, it is not an exact science; and the last thing you want to do is take on a new process that introduces a whole new set of inefficiencies. So another important step is to look for a TMS solution with embedded business intelligence. This will mitigate your risk and allow you to take control of your inbound transportation processes systematically.

With embedded business intelligence you can run "what if" scenarios and make incremental changes, testing the results and measuring the financial impact of your decisions before you implement on a large scale. Once you are a fully operational, you can fine-tune and optimize your operations for continuous improvement.

A TMS with robust business intelligence will allow you to run real-time business analytics on any area of your operation. For example you can perform complex analysis to get to the "why" behind an event or action or do time trending to analyze what has changed over previous years, quarters, months and so on. Data from your day to day operations is organized in logical categories such as fiscal periods, suppliers or carriers by region, suppliers or carriers by type, suppliers or carriers by volume and so on.

This immediate access to business analytics helps dispatchers make better decisions in real time. For example, when they need to select a carrier for a high-priority customer, or for a shipment critical to the production schedule, they can access context sensitive data to see which carriers have the best record for on-time performance over, say, the last four weeks. You can even automate decision-making to 'drive the process' based on real-time data analysis and pre-established criteria.

When you are running analytics, a good business intelligence engine will present information at the summary level but allow you to drill down to the transaction level to find root causes. You should be able to rank, sort, forecast and nest information for greater insight and view and analyze data relationships graphically.

Make sure freight audit and payments are driven off contracts
Automation of the freight audit and payment should be driven off the contracts you negotiate with carriers. For example, in the contract you establish the price per mile and tolerance levels for performance. Any invoice that is higher than expected, based on these agreements, will be automatically flagged as an exception. At that point you should be able to drill down to discover the root cause of the variation. Without these automated checks, controls, and associations between charges and events, managing freight payments can be extremely time consuming and fraught with error.

Look for flexibility and ease of use—everywhere
When you are scheduling a truck to pick up an order, it's not enough to know when to pick up the goods. You need to have some idea of the dimension of the containers,

plus the ability to plan for special needs such as trucks with built-in hangars, gate lift equipment for heavy loads, refrigerated trucks that can haul frozen food, and so on. A good TMS will allow you to create supplier portals with an easy-to-customize Web interface that collects exactly the data you need; so when an order is ready, you will be sure to send the right kind of equipment to pick it up. These portals should ensure communications occur in the right sequence, with complete information at the right time, and be flexible enough to allow you to tailor the collaboration process to individual suppliers if necessary. If you try to take a "one portal serves all" approach, the portal will likely end up too complex, which destroys user confidence, causes errors and delays, and erodes financial gains.

A good TMS will also have the flexibility to automate complex tendering strategies that are constantly changing. For example when you tender a load to a carrier and they don't respond within two hours you might tender the load to another company. If that company fails to respond within a specified timeframe, you might go back to the first company or you might tender the load to three other companies simultaneously and wait for the first responder. If a highly ranked carrier repeatedly fails to respond, or drops below acceptable performance levels in other areas, you might lower its ranking or remove the company from your list of preferred carriers. All of this requires a great deal of flexibility in the TMS as well as excellence in design so that business rules are easy to change and navigation is easy to follow.

Create a cross-functional team
The role of managing inbound transportation will most likely require a new team that brings together experts from procurement, supply chain management, warehousing and transportation. If these departments do not report to a single director or vice president, management will have to work to bring down the walls of any "silo" mentality that exists. The team should also include an IT member or advisor to help everyone understand the role of technology in meeting their goals.

Take advantage of new mobility applications
TMS mobility applications lead to more frequent updates by carriers and better insight to the status of inventory in transit. Drivers may not always have access to computers but can easily give updates via phone. If these phones communicate instantly with your TMS, driver-initiated alerts can be broadcast to all relevant points in the supply chain. Mobile TMS applications also help carriers respond faster to load tenders, accelerating the inbound transportation process.

Choose an on demand solution
The ROI gains discussed in this paper assume that you will be using an on demand TMS, also known as Software as-a-Service (SaaS) model. By selecting an on demand TMS, you will be sure that all parties across business units as well as vendors, suppliers and carriers, will be working from a single source of truth. And, with an on demand system, both your overhead and initial investment will be lower. On demand systems shorten implementation time, preclude the need for software updates, and ensure that the technology you use to run your business is always state of the art.

What to look for in a TMS solution

Software as-a-Service model (SaaS)

Look for a solution based on the SaaS or on demand model. This is software that is owned, delivered and managed remotely by the provider and is accessed by subscribing to the service. The best on demand solutions will include access to supplier and carrier networks as part of the subscription.

Connectivity

Look for a solution with pre-built connectivity to supply chain participants and features such as 'self-provisioning' tools that take the burden off your staff and accelerate the onboarding process.

EDI support

The solution should deliver pre-packaged EDI standard document maps and ANSI X12 translation for all purchase order transactions and acknowledgements, change requests, advance ship notices, shipment status updates, invoices and payment advices.

Vendor portal

The input forms on the vendor portal should capture everything you need to know to send the right equipment and should enforce shipper-specific business rules and required fields. These forms should be easy to customize and should accommodate small suppliers with no EDI capabilities. Suppliers should be able to process purchase orders, request routing, and send advance ship notices (ASN) without using EDI.

Mobility applications for drivers

Today's TMS should come with mobility apps for cell phones so that drivers can report status more frequently and without having to access special equipment.

Freight audits and payments

Automation of the freight audit and payment should be driven off the contracts you negotiate with carriers.

Load optimization

Load optimization features should allow you to plan and control routes based on consolidation of inbound and outbound shipments. They should completely automate the process of notifying suppliers when and how the goods will ship.

Carrier selection

Carrier selection capabilities should allow you to select carriers based on lowest cost, ranking, and volume commitments. They should support both dedicated fleets and common carriers across all transportation modes including truckload (TL), less-than-truckload (LTL), intermodal, rail, ocean, parcel and air freight.

Business intelligence

Business intelligence capabilities should allow users to access supplier and carrier performance data in real time measured against user-defined benchmarks. Users should be able to define and monitor KPIs and measure carrier and supplier performance against network benchmarks. Users should be able to drill down from summary information to determine the root cause of exceptions and out-of-tolerance performance.

Vendor compliance

As a minimum, the TMS should ensure suppliers comply with guidelines regarding advanced shipment notifications (ASNs), carton sizes, barcode labeling and shipment routing.

Supply chain visibility

The TMS should track the complete order and delivery process and provide visibility into what goods the supplier has available for shipment. It should proactively notify suppliers when an order is out of compliance and minimize supply chain disruptions through custom order-flow models that allow buyers to create and monitor milestones. It should also allow for supplier performance tracking and score-carding based on pre-configured metrics.

Graphical dashboard

TMS dashboards should provide personalized and real-time access to supplier and carrier information and should easily alert users to order and delivery exceptions.

Conclusion

In most organizations, the cost of transportation is equal to or greater than the cost of warehousing, order entry and customer service—combined. Therefore, every dollar a company spends on transportation should yield the highest possible business value.

Implementing an inbound transportation program is not a trivial undertaking, but today's on demand TMS systems make it easier than ever before and deliver very high, very fast and very measurable return on investment. And, in today's economy, there is no justification for leaving money on the table, especially when the same initiative that reduces transportation costs leads to so many other process improvements.

WalMart's recent decision to control their inbound supply has generated new interest in the benefits of inbound transportation management. While mega retailers like WalMart and Best Buy stand to gain hundreds of millions by using their own fleets for backhauls, this is a program any company can initiate and profit by. Certainly the tools are accessible and available to companies of all sizes, and the motivation can only increase. That is, as more retailers and manufacturers enter the game, inbound may be the only transportation costs you can control.

The Sterling Commerce solution

Sterling Commerce excels in both inbound and outbound supply chain solutions with a market-leading TMS that also gives you access to a collaborative network of over 9,000 carriers and 30,000 suppliers. The Sterling Commerce solution for inbound transportation management includes easy self-provisioning tools for rapid partner onboarding and flexible partner portals for carriers and suppliers who are not EDI capable. It also provides end-to-end visibility of supply chain events from procure to pay, with role-based alerts to enable efficient and reliable management by exception. All of this is delivered on demand, which means fewer IT resource requirements and low total cost of ownership.

About Sterling Commerce

Sterling Commerce, an IBM® Company, helps organizations worldwide increase business agility in their dynamic business network through innovative solutions for selling and fulfillment and for seamless and secure integration with customers, partners and suppliers. More information can be found at **www.sterlingcommerce.com.**

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