

The SUPPLY CHAIN DIGEST LETTER

This month: **Transportation Management Systems**

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Transportation Management Systems: Understanding Today's Solutions and Trends

It's a great time to consider a transportation management system (TMS) - as it appears many companies are realizing.

Research by Supply Chain Digest suggests that the number of TMS "transactions" - meaning the number of companies purchasing a new TMS license or adopting a new "hosted" TMS - has been about double in the past 12 months from what it was two years ago.

The reasons are simple - a variety of cost pressure and service challenges, plus the increasingly complex global nature of the supply chain and the increasingly strategic role of transportation in the overall supply chain. While perhaps too often

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PPG Combines Centralization and TMS to Achieve Transportation Excellence

PPG, a multi-billion dollar manufacturer of paints, glass, specialty coatings, and other products for both industrial and consumer markets, didn't just jump on the transportation centralization bandwagon - it helped define the concept.

"I believe we were either the second or the third organization in the country to create a central load control center, after 3M," said Jim Carr, manager of PPG's Logistics Center in Delaware, OH. "We've had a centralized model since 1990."

The Logistics Center manages about 175,000 loads per year across a variety of modes, supporting 15 different business units and 42 unique ship sites. PPG's success in centralization is especially interesting because of the great diversity of its freight moves and transportation requirements across its many products and business units. They utilize bulk carriage, temperature controlled equipment, single and double drop flat bed trucks, a dedicated fleet, traditional dry van, some rail and intermodal, and even heavy air freight.

On top of that, with PPG products going into the automotive manufacturing market and to many other manufacturing customers where the materials are critical, PPG often must manage its transportation with very short order-to-delivery windows.

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TMS Thought Leaders Discussion: Holistic Transportation Management

The SCDigest's Dan Gilmore recently spoke with **Adrian Gonzalez of ARC Research Group, and Matt Harding of Manhattan Associates**, about key TMS issues. Below is an excerpt of this discussion. The entire video interview can be viewed at www.scdigest.com/letter/tms.

Gilmore: *Adrian, I know you've been doing some research around the notion of a more "holistic" approach to TMS. What does that mean?*

Gonzalez: Historically, the way companies have managed transportation operations has been very fragmented. For example, one team focused on the private fleet, another on for-hire carriers, one focused on international, and another on domestic. Same thing with inbound versus outbound and even intra-company moves. There's been similar fragmentation on the technology side, with the same kind of distinctions in area of focus from vendors.

We're beginning to see progressive companies begin to organize and look at transportation operations more holistically in the face of rising transportation pressures. Similarly, leading TMS vendors are integrating what was a fragment collection of applications into a more unified platform that can help companies manage transportation more holistically across these areas.

Harding: We're seeing the same thing. Our customers are driving us towards a more holistic view. They are demanding a set of capabilities that extend beyond just truckload freight and managing carriers and rates and looking to optimize the whole network. We're seeing a huge interest in extending TMS capabilities across all assets and functional silos. The challenge is they may have different economies and different service strategies. Solving

that problem is a key part of Manhattan Associates' product strategy.

Gilmore: *In looking at this issue, I think some companies find that after adopting TMS, they find some "hidden" ROI that goes beyond the original cost justification, in part by managing the process more holistically.*

Harding: Absolutely. In the frequent case where networks have been operating in a decentralized fashion, what you find is that after a TMS implementation solves certain problems, other opportunities start coming up. There are many different areas, but the key is visibility to identify where those opportunities exist. If the freight is moving enough to keep customers mostly satisfied, there isn't a systemic way to really identify additional areas for savings and operational improvement without a strong TMS. Some times those opportunities are hard to see upfront, but they are there.

Gonzalez: Even many well-known companies have issues with just effective blocking and tackling in transportation. So that drives the initial TMS implementation. But once you start looking at the data and the improved visibility, often using performance management tools and analytics, then you start to identify whole new areas for continuous improvement.

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Gilmore: Many companies first bought TMS in the 1990s, or last looked at solutions then and are finally evaluating them again. What are some important recent changes in TMS technology?

Gonzalez: There are huge differences in today's TMS applications. From a pure technology perspective, most are moving from a client-server oriented architecture to a more services oriented platform. This helps ensure the systems are more open, flexible, and configurable. The other big difference is that in the past, a TMS was mostly a stand-alone application that had just a handful of users. Today, when you look at the functionality and information in a TMS, you can have hundreds or even thousands of users. The ability to configure the application for different user roles becomes very important.

Harding: What we're also seeing now is a greater focus on integrating other applications, like WMS, inventory planning, and dock door scheduling into a total supply chain approach. For example, what are the transportation impacts on certain inventory stocking scenarios? It also turns out that better transportation visibility by itself really helps to break down some of the functional silos that can exist within the supply chain.

For the complete video of this discussion with our experts, visit www.scdigest.com/letter/tms 

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referred to as the "perfect storm," as transportation consultant Stephen Craig of CP Consulting recently told SCDigest, "The 'silver lining' in this so-called perfect storm is that this is perhaps the best time ever to get corporate approval for new transportation management technology."

The time has simply never been more favorable for getting an approval for a TMS investment.

"TMS" HAS MANY DEFINITIONS

While there is unquestionably a strong interest in TMS solutions, the definition of TMS is one area where there is some confusion as to terms. This is because a variety of somewhat distinct categories can fall under the TMS umbrella.

- **Traditional TMS:** A system that is involved in the planning and execution of shipments, typically across multiple modes. This is the area of primary focus in this issue of **The Supply Chain Digest Letter**. You'll see as we describe in more detail below that the scope of these core TMS solutions continues to expand.
- **Network Planning and Optimization:** Of late there has been strong market interest in software that helps companies design and optimize their supply chain networks. Because transportation costs and service requirements play such important roles in this network optimization, sometimes companies describe what they are looking for as a "TMS" when the industry generally uses the "Network Planning" term. (We will be looking at Network Planning solutions and strategies in the January issue of The Supply Chain Digest Letter. Go to www.scdigest.com/letter to arrange your free subscription and ensure you receive this issue.)
- **Global Trade Management and International Logistics Systems (ILS):** These solutions are typically involved in several of the international-specific elements of global trade and goods movements, including import and export compliance and screening, documentation, track and trace visibility, sourcing, total delivered cost calculation and financial flows (letters of credit, etc.). Many have some transportation planning and execution capabilities. To make things more confusing, many traditional TMS vendors have added capabilities in this area, either through development or partnership (see below).
- **Parcel Manifesting Systems:** Traditionally used to select the best carrier and rate amongst multiple small parcel vendors (UPS, FedEx, DHL, etc.), and ensure technical and labeling/documentation compliance with those carriers. Recently, some of these more parcel oriented vendors have branched out into other modes, especially LTL and some truckload.
- **Routing and Scheduling:** Software that provides detailed, optimized street-level routing and

... this is perhaps the best time ever to get corporate approval for new transportation management technology."

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dispatch for multi-stop fleets, especially for companies with direct store delivery and home delivery operations. Some traditional TMS vendors provide routing and scheduling capabilities either directly or through partnership.

- **Fleet Management:** Focused on companies that operate private fleets, generally emphasizing the management of the physical assets, especially with regard to maintenance, parts warranties and related capabilities.

EXPANDING DEFINITION OF CORE

In the past 18-24 months, TMS vendors have made significant strides in delivering more advanced solutions that continue to expand what can be considered “core” functionality. Another important development is that the latest generations of solutions are clearly easier to configure, integrate, deploy and use than ever before.

In the recent past, we've seen continued vendor improvements in the depth and breadth of functionality, and in the ease of use and deployment. Some of the key new trends we're seeing include the following:

- **Improved integration and flexibility:** Nearly all TMS vendors are somewhere along the path of introducing solutions based on Service Oriented Architectures (SOA) that offer the promise of much easier integration with other enterprise applications and more flexible tailoring of the solutions to meet specific customer needs.
- **Dock door scheduling:** With more focus on supply chain synchronization and faster turn of trailer and dock doors, integration of traditional TMS with dock door scheduling modules has been an increasing trend. These dock door modules themselves are evolving from basic scheduling applications to ones which truly optimize dock and door processes.
- **International focus:** Though it's unlikely that no single vendor has a truly complete solution, the majority of vendors are adding more global transportation capabilities. However, they are adding these capabilities in different ways, with some more focused on being able to deploy their TMS in other countries, some more focused on optimization of the full inbound international through domestic moves, and others more focused on trade compliance and documentation.
- **On-demand or “hosted” solutions:** We'll discuss this growing trend below.

THE GROWTH OF ON-DEMAND

TMS Solution Profile Manhattan Associates



Solution Description:

Manhattan Associates' Transportation Management solutions provide everything you need to automate your transportation network. Transportation Management solutions will enable you to develop an optimal transportation plan for your day-to-day operations. Our solutions integrate transportation procurement, planning and execution so you can run a more efficient transportation network—and increase overall profitability. You'll be well-equipped to make the best resource-to-shipment assignments, adapt quickly to changes and events in real time and strengthen communication with your trading partners and carriers.

Key Customers:

PPG Industries, Coles Myer Ltd., Elektra del Milenio S.A. de C.V., Dick's Sporting Goods, MeadWestvaco

Web site & Contact Info:

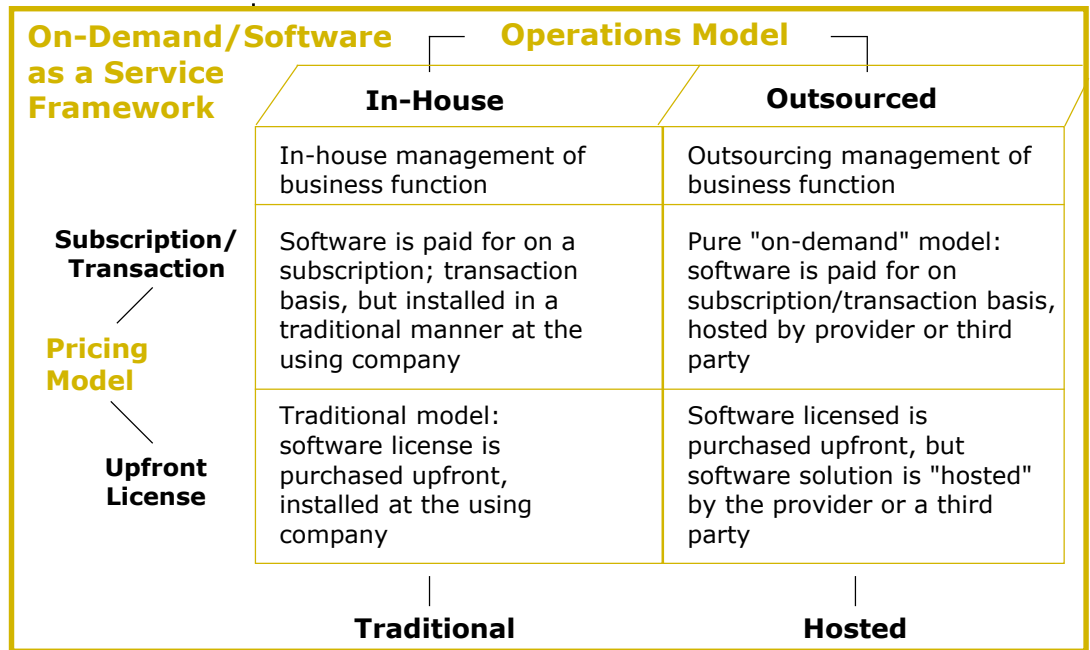
www.manh.com
Phone: 770.955.7070
info_americas@manh.com

Featured White Paper/Collateral:

- Case Study: "PPG Paints a Picture of Success with Manhattan Associates" Transportation Management Solutions
- Corporate Brochure

Available at the corporate web site, through the included response cards, or www.scdigest.com/letter

In the past two years, there has been strong growth in both interest and adoption of “on-demand” solutions, alternatively referred to as “hosted” or “software as a service.” While there has been considerable hype about on-demand solutions generally (e.g., Salesforce.com for CRM), TMS is an area where there has been as much user interest as any. In fact, SCDigest has heard of a couple of stories of companies adopting on-demand TMS solutions almost outside the formal corporate IT process, to get access to capabilities even if not much integrated with other enterprise systems.



Many companies are showing interest in on-demand TMS. What they mean by that term, and what is driving the interest, covers a range of possibilities. In fact, there are two key dimensions to the on-demand model versus the traditional way of purchasing and installing a TMS solution, with a third that often also comes into play with regards to TMS:

- **Pricing model:** Will the software be paid for upfront, by buying a *license* for the software, or will it be paid for incrementally as used based on transaction or subscription pricing?
- **Deployment model:** Will the software be deployed within the four-walls of the enterprise, on your hardware, or will the software be accessed through the Internet or other broadband approach (e.g., Citrix) and physically reside in someone else’s data center?

In a “pure” on-demand model, the software is deployed remotely on the on-demand company’s servers, and is paid for on a transaction or subscription basis.

But other combinations are possible, and while there are a few “on-demand” only vendors, most TMS vendors can adapt to customer-specific interests. For example, a company, based on capital budgeting concerns may decide it wants to pay for the TMS on a transaction basis, but wants the software deployed within its enterprise.

Conversely, a company may want to buy a software license upfront, but want hosting and management of the application to be performed by someone else.

- **Outsource functional management:** Many TMS buying cycles these days have a 3PL proposing to both provide the technology (often using one of the straight software vendor’s products) and also running some or all of the transportation functional processes.

There is no right answer. The key is to be very clear about what is driving your potential interest in on-demand TMS, and be sure to do the analysis of the options effectively. (See the Resources section at the back of this issue for more information available about on-demand TMS solutions).

We’ve even seen a few cases where companies implemented TMS “on-demand” initially either to speed time-to-implement or because capital appropriations were tight, only to later either buy a software license or move the deployment in-house.

CLARIFYING YOUR NEEDS

More so in the area of TMS than perhaps any other supply chain application area, SCDigest has seen companies that have not well crystallized what is really driving their interest. This leads to a variety of problems later, including difficulty deciding on a vendor, and a lack of clear and achievable project goals.

Below is a list of key questions **The SCDigest Letter** believes are key to clarifying your TMS needs. Answering

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these questions will in turn help you to much better focus on a shorter list of potential vendors:

- ? Are you looking for a “big”, enterprise scale solution or a lighter-weight, more execution oriented system?
- ? Similarly, are you thinking of deploying the TMS more at a facility-level, or in an enterprise/network oriented approach?
- ? Are you more heavily considering a traditional deployment/purchase or an on-demand approach?
- ? How big in your mix is parcel? If it is a heavy or predominant mode, it will likely change your potential vendor base.
- ? How important is WMS integration? If high, it may lead to some bias towards vendors offering both WMS and TMS. Be sure to way that against the benefits of integration with other planning systems or integration with your ERP system.
- ? Does the collaboration model have value? Some TMS vendors offer opportunities to consider moves in the context of others in their “networks,” offering the opportunities for in-network continuous moves or backhauls.

By answering these questions upfront, you will be in a much better position to clarify your functional needs and filter the list of potential vendors.

FUNCTIONAL DIFFERENTIATORS

While we've seen significant improvement in TMS solutions in recent years, and to some extent increased parity among the market leaders, there are still important differences among alternatives that need to be fully explored in relation to your specific needs. We summarize key areas of these functional differences below. See the Resources section at the back of **The SCDigest Letter** on-demand Videocast **How to Select a TMS 2006** for an opportunity to see an in-depth presentation on this and other related TMS topics

- **Footprint:** Not every vendor still has all the pieces. Make sure you understand what pieces the vendor has, and what is real versus what is just part of the “roadmap.”
- **Fundamental Data Model:** Will it support your order/shipment needs? You need to make sure the vendor

can model your environment and processes - this takes getting under the covers.

- **Optimization:** Levels of optimization capability vary, and SCDigest recommends that most companies do a “bake-off” with vendors on the final short list by taking actual company order data and having the vendor run it through their optimizers.
- **Support for Global Logistics:** If global inbound and outbound is a strong part of your projected needs, you will likely find significant differences between vendors in their support for global logistics generally, and their ability to link full cycle global through domestic moves.
- **Support for Workflow:** With transportation increasingly complex, the need to potentially support multiple businesses and transport models within your company, and the increased need for integrated TMS with other areas of the supply chain is key.
- **Support for Parcel:** Varies significantly from vendor to vendor.
- **Freight Payment:** Ability to easily match up transportation data to the company G/L is key and different between vendors. This is an area where the ERP solutions can definitely have some advantages. Another differentiator in this area is the ability to manage claims, both against carriers and suppliers.
- **Rating Engines:** Level of flexibility and support for multiple attributes.
- **Vendor and Carrier Collaboration:** Richness and depth of the web portals for integrating and collaborating with both carriers and suppliers. While most vendors offer something these days, there are differences in the level of functional richness.
- **Analytics:** Solutions range from basic reporting to very rich analytic applications that allow for detailed and “root cause” analysis.

To get at these differences, **The SCDigest Letter** recommends the use of detailed “scripted demos” that require vendors to demonstrate full process support for each area of your needs. It is not uncommon for companies to create two dozen or more of these scenarios. While this requires a lot of preparation work for not only the vendors but your own team, the results in terms of a much more clearly differentiated view of the solutions and a much better identification of the one solution that likely best meets your needs is well worth this upfront effort. □

TMS Solution Profile

Shippers Commonwealth



Solution Description:

Most comprehensive suite of TMS solutions for shippers or receivers of any and all sizes, providing guaranteed benefits with highest capabilities, quality, and speed, at lowest landed cost with life cycle support for our customers. We at Shippers Commonwealth pride ourselves on “customer for life” and self-funded TMS programs that pay for themselves in months. Visit our clients and see the proof for yourselves. Let us help you. We are “big enough to serve, yet small enough to care”.

Key Customers:

Alcoa; Sonoco; Johns Manville, Bon-Ton Stores; UPS; Stage Stores; Jeld-Wen, Boscov's Stores, 4 Seasons Automotive, North American Salt, among many others

Web site & Contact Info:

www.shipperscommonwealth.com

Phone: 843-557-1615 or 804-474-7700 X 126

info@shipperscommonwealth.com

Featured White Paper/Collateral:

“Case Study: Johns Manville Transportation Improvement Initiative” from Supply Chain Digest August 2006

“Case Study: Stage Stores Keeps On Truckin” from Chain Store Age/Retail Technology Quarterly July 2004

Available at the corporate web site, through the included response cards, or www.scdigest.com/letter

What Today's Shippers Want

by Robert Shagawat, CEO, Shippers Commonwealth

As pioneers in the development and wide-scale deployment of advanced Transportation Management Systems (TMS), we at Shippers Commonwealth see today's progressive shipper seeking dynamic optimization with interactive execution, now seamlessly combined with business intelligence for management. We also see increasing demand for complete Tier 1 TMS suites of the highest quality at an affordable price which can be rapidly deployed and “self-funded”.

On-Demand TMS solutions on a “pay as you go basis” with rapid deployment and outsourced hosting have now made integrated Tier 1 TMS solutions available to shippers of any and all sizes. Companies that are realizing measurable immediate and hard cost savings within 35 – 45 days include *Bon-Ton Stores, Sonoco, Alcoa, Johns Manville, Jeld-Wen, and North American Salt*.

There is greater readiness and sophistication to take on *Extended TMS Solutions (XMS)* for expanding to inbound, dynamic pool distribution, multi-modal, and multi-shipper collaboration as part of “communities” or a “commonwealth” of shippers (an XMS can integrate to any ERP system, not just the ERP that your company may be running today.) Significantly, we see today's customer base demanding the most complete TMS solution as delivered and supported by real TMS focused experts, not enterprise solutions where TMS is a partial “after-thought” with numerous gaps. Part of this is embodied in our motto: “*Big Enough To Serve, Yet Small Enough To Care...for our “Customers For Life”*”.

The sophisticated shipper marketplace now demands the deepest commitment to continuously improving solutions for complex transportation needs in a capacity constrained, high demand business environment. It is all about the four P's: products, people, productivity, and performance. The best products need to be delivered by the most qualified people for life cycle expansion and support.

All shippers and receivers should benchmark what their peers are doing in this space, and also look into XMS programs to advance into collaborative transportation for expansion or On Demand TMS programs to get started. It is always valuable to benchmark what the right process (and supporting TMS delivery program) can do for fulfilling your organization's logistics mission: delivering on-time, defect-free, at the lowest landed cost. Leading TMS providers can help you in this quest. □

Where's the ROI in TMS?

This may be the most favorable business environment we've ever seen to secure corporate approval for TMS solutions, but in the end the numbers still have to work.

After discussing TMS deployments with many companies, **The SCDigest Letter** has come to the following conclusions:

- ◆ In today's environment TMS systems almost always have an ROI that meets corporate hurdle rates or payback period requirements. These are high ROI applications.
- ◆ Many companies sometimes struggle to find that full ROI in quantifying project benefits due to lack of experience with TMS systems.
- ◆ The ROI calculations provided by vendors are beneficial in identifying likely areas of savings; however, the calculations typically overstate what the TMS will actually achieve. This is partly from a natural bias towards identification of a greater level of savings, and partly basing calculations on assumptions that everything will be executed perfectly and not taking into account things that can go wrong.
- ◆ ROI sometimes shows up post-implementation in ways that weren't initially envisioned.

SAVINGS BUCKETS

In general, the level of savings opportunities from TMS is driven by three main factors:

- ◆ The current level of transportation technology/ automation.
- ◆ The level of shipment consolidation opportunities, generally represented by the amount of LTL moves inbound and outbound.
- ◆ The current level of centralization, and plans for centralizing currently decentralized transportation functions. Many TMS initiatives are driven by a move to centralization (often termed the "load control center"), and often savings in manpower and carrier spend can be generated from centralization programs.

On the next page we list some of the key areas of savings from TMS implementations, along with some typical percentages of savings. When reviewing these numbers, please keep in mind that there are some redundancies, meaning you won't realize savings from

TMS Solution Profile SAP



Solution Description:

SAP is the world's leading provider of business software. Today, more than 34,600 customers in more than 120 countries run SAP® applications—from distinct solutions addressing the needs of small and midsize enterprises to suite offerings for global organizations. Powered by the SAP NetWeaver® platform to drive innovation and enable business change, SAP software helps enterprises of all sizes around the world improve customer relationships, enhance partner collaboration and create efficiencies across their supply chains and business operations. SAP solution portfolios support the unique business processes of more than 25 industries, including high tech, retail, financial services, healthcare and the public sector.

SAP for Logistics Service Providers delivers comprehensive capabilities for lead logistics providers, third-party logistics providers, forwarding companies, and ocean and trucking carriers. It provides an integrated, flexible set of solutions that enables you to handle complex business processes while managing operational activities.

Web Site and Contact Info:

www.SAP.com
Phone: 800-872-1727

Featured White Paper/Collateral:

Transportation Management and the Adaptive Supply Chain Network - Available at the corporate web site, through the included response cards, or www.scdigest.com/letter

all the areas:

Netting it all out, we typically see companies reducing transportation overhead between 10-30%,

optimal mode and carrier selection, then move to optimized shipment consolidation in phase 2.

KEYS TO ROI

To generate an achievable ROI calculation, it is critical to build a true “bottoms up” business case that is based on analyzing each area in detail to estimate the hard savings that are achievable over time. Some companies struggle with doing this internally, and may find that using an experienced consultant can help gain clarity and consensus.

The real key, of course, is to tie the savings to specific operational

programs. The question to ask is what, specifically, will be different after TMS implementation, and in what timeframes? It is important that everyone understands where the project justification is coming from, and how process must change to achieve these numbers. □

Optimal Mode/Carrier Decisions	freight spend savings 2-6%
Optimized LTL to Multi-stop Truckload or Pool Carrier Consolidation	freight spend savings 5-20%
Improved Efficiency in Operations	reduced overhead 10-30%
Core Carrier Program/Using Data to Improve Negotiations	freight spend savings 3-10%
Continuous Moves	freight spend savings 2-5%
Basic Order Consolidation	freight spend savings 1-2%
Improved Freight Settlement/Audit	freight spend savings 2-5%

depending on factors related to centralization. We also see a reduction in freight spend of between 5 to 15%. For most companies, this provides savings that generate a substantial ROI and rapid payback. It is possible for companies to generate total savings higher than these levels (these are exceptions) if there is very little current automation, high levels of LTL shipping that can be consolidated, and/or a move from a much decentralized operation to a centralized one.

UNDERSTAND THE TIMING OF ROI

The numbers referenced above generally refer to the total savings available from the TMS initiative. Vendors and consultants will sometimes discuss these savings as if they will come all at once. Of course, the savings emerge over time, both as users take time to fully embrace new technology and processes, and different levels of functionality and capabilities are phased in.

It is important to model these savings phases accurately. We’ve seen a few companies with strong total ROIs suffer internal issues because the projected savings were expected to be realized in the first year, not positioned to be achieved in several phases. It is quite typical, for example, for a company to put in basic TMS functionality first to automate transportation processes and perhaps

PPG Case Study

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Since the inception of the Logistics Center, PPG has relied on strong transportation technology. They began with a home grown system that ran on a mainframe computer. In 2002, however, Carr and his team decided that the burden of maintaining the system in-house, coupled with the newer, more advanced capabilities that were available in the commercial TMS (Transportation Management System) market, meant it was time to revamp the system and look to the outside.

After a substantial selection process (more on that below), PPG eventually chose a hosted TMS solution from logistics.com, now a part of Manhattan Associates.

THE ON-DEMAND CHOICE WAS EASY

While PPG considered a traditional deployment, in the end Carr said going the on-demand route was an easy decision because of the lack of investment required in IT personnel and infrastructure.

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PPG Combines Centralization and TMS to Achieve Transportation Excellence

PPG, like a growing number of companies, purchased or built TMS systems in the 1990s but then went back to the market for a second time. SCDigest thinks the lessons of these “second timers” holds some value for those investigating TMS solutions for the first time.

In PPG’s case, the company started by soliciting Requests for Information (RFI’s) from six potential vendors. From those six, four were invited to do presentations and unscripted demos.

From those presentations, two finalists were selected to respond to detailed “scripted scenarios” – a process that can be quite an effort for shippers to create and vendors to respond, but is definitely worthwhile because they generally provide a clear view of what capabilities the vendor truly has.

“We told the vendors ‘Here’s our business, these are the scenarios. Now, **show us**, not tell us, how it will work with your system,’” Carr said.

Going through this the second time, PPG also had the advantage of having the interface points between the TMS and other corporate systems already defined. Carr said that for new TMS adopters, getting these interfaces well mapped is key.

“You have to decide where and when you are going to pull order information from, what information you are going to pull, when you are going to update these systems with transportation information, and how you are going to handle the freight pay and accounting side of the data,” Carr said.

SUCCESS WITH THE NEWS TMS

Since PPG already had a history with building a TMS,

they were a demanding customer. Carr said that in addition to reducing the maintenance burden from it’s internally developed TMS, PPG was interested in realizing more advanced optimization and consolidation capabilities, using a system that was able to run that optimization program more quickly, and provide more advanced rating and routing functionality.

- ▷ Enhanced ability to create continuous moves or pick-ups from multiple PPG ship sites in a common geographic area such as Cleveland.
- ▷ Improved visibility to transportation moves across the network, improving efficiency and service both to the PPG business units and their end customers.
- ▷ Enhanced efficiency and lower overhead costs. More than 85% of all loads receive automatic optimal carrier selection, and next best recommendations are automatically made for rejected loads.
- ▷ Reduced transportation spend through improved optimal selection of modes, carriers and consolidation opportunities.
- ▷ The ability to react more quickly to changing business needs through configuration changes in the TMS.
- ▷ Management of inbound moves, and “reverse logistics” for the many reusable containers PPG uses for customer shipments.
- ▷ Broad use of the web to connect to carriers. About 25 of PPG top carriers use EDI, but the company now uses the web-based capabilities of the TMS to connect to another 100 or so medium and smaller carriers, streamlining manual processes and reducing cycle times.

The TMS from Manhattan Associates has delivered those additional capabilities. Some of the bottom line and operational benefits PPG has realized from the TMS are shown near by.

PPG is very focused on the efficiency of its Logistics Center. The 175,000 loads per year are executed with only 15 staffers, which Carr believes is a high level of productivity. A key metric he watches is loads per planner, and says the new TMS is critical to keeping that level of effectiveness high.

FINDING TRANSPORTATION LEVERAGE

“Centralization enables you to leverage your freight spend, your dedicated fleet, your processes and your technology,” Carr told us. “When the model is based on each plant or area doing its own thing, you just can’t get that leverage.”

He said in addition to the economic benefits, centralization enables a company to implement standardized best practices across all the businesses.

“We can create consistency in how we do things to both carriers and customers,” he said. Technology then plays a key role in that transformation.

“But you just can’t run a centralized load control center without this kind of TMS technology,” Carr emphasized. □

The Future of TMS

BY JP WIGGINS
INDUSTRY SOLUTIONS, TRANSPORTATION SAP

In the 1980s our transportation management systems (TMS) were rudimentary with simple features mostly designed to help outbound domestic shippers choose mode and manage transportation orders. In the 1990s, we saw the evolution of tools designed to optimize shipments across the modes and help reduce transportation costs, with initial features for third-party logistics (3PL) and logistics service providers (LSP). By the early 2000s, the industry saw TMS better suited not only for global shippers but also for the 3PL/LSP market.

What we are starting to see is that just like before we are reaching the limits of the current generation of products. The reason is the same: industry is starting to ask the technology to do more than the current products can support.

In today's world, software packages no longer fit into boxes for transportation management, customer relationship management, human resources, financials, and so on. The industry is starting to want solutions that go beyond these classic definitions.

The IT industry is responding to this demand by developing tools that are designed to not only solve TMS problems but business problems that clearly cross the

classic product boundaries; for example, solving problems across multiple tiers and not just within the four walls of one company. Inter-enterprise optimization is one of the new challenges we are now starting to face.

To solve these advanced problems, your TMS must be one with your other systems and not an integrated point product. In fact, integration is now a limiting factor for TMS (and overall IT) growth. Look at how much of your IT budget is spent on TMS integration and maintenance. Enterprise Application Integration (EIA) toolkits have helped the integration challenge but they are just a stopgap measure. A better way is emerging.

The next generation TMS is being built on the technologies of enterprise service-oriented architecture (enterprise SOA) on an open platform. When your business logic is built on the same platform, then the integration challenge is eliminated and all your software can share their unique functions without boundaries.

While it is not an exact analogy, I think of TMS like the spell checkers we used in the 1980s, which we would have to buy as an add-on tool. Today the functions of a spell checker are completely embedded in our desktop applications. Our desktop shares critical functions across all desktop applications. On a much larger scale that's how your TMS needs to be; it needs to share its business logic across all functions. This will stop us from wasting budget on integration and allow problem solving that crosses departments and enterprises. □

TMS Resources

Find the TMS-related information and tools you need. Available for download at www.scdigest.com/letter

Partial list of resources available:

On-Demand Videos and Videocasts

- *How to Select a TMS – The No Spin Zone*

Cost: \$299.00

\$50 savings for SCDigest Letter readers. Use coupon code: TMS2006

- *Cutting Costs with On-Demand TMS*

- *Holistic Transportation Management*

More Transportation Videos and Videocasts coming soon.

Tools

- On-demand TMS Cost Calculator
- Graphic: TMS Functionality Breakdown
- Graphic: Actual TMS cost justification analysis from a high tech manufacturer

Case Studies, Articles, and White Papers

Large selection of material, including the featured material from Manhattan Associates, SAP and Shippers Commonwealth.

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