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Transportation Trends Are On the Move

Will Your Current Transportation Management Strategy Support Them?



Tillman Estes is Director of Application Solution Management, SCM, with a focus on Adaptive Fulfillment Networks. He has over 19 years of experience in supply chain strategy and execution, with a primary interest in transportation and warehouse management. Prior to joining SAP Labs, LLC, he was the Senior Director of Product Management at Manhattan Associates. He can be reached at tillman.estes@sap.com.

For any company that touches a supply chain, transportation has quickly become a leading factor in determining the difference between profit and loss. It is estimated that transportation management operations currently account for up to 60% of an organization's overall logistics spending and, accordingly, have risen from a straightforward, goods-movement activity to the forefront of the CEO's agenda.¹

Transportation is at the core of supply chain management. It's the essential link between the extraction of natural resources; the fabrication of industrial, commercial, and consumer products; and the final distribution of goods to wholesalers, retailers, and end users. No matter what market you're in or

what your supply chain looks like, your business hinges on your ability to move your products, goods, and raw materials where and when you want to.

Establishing innovative ways to reduce costs and improve efficiencies and accuracies in your transportation plans demands a strategic approach to transportation management – and requires a technology backbone built on a flexible, integrated IT architecture. SAP supply chain applications are ready to enable this transformation.

Keep Pace with Emerging Transportation Trends

In a traditional, linear supply chain, commercial transportation was a fairly simple activity; goods and materials were taken directly from the manufacturer to the customer. But today, within an adaptive supply chain network (ASCN, see sidebar), transportation

¹ "SAP Charts New Frontiers in Transportation Management," available at www.sap.com/company/press/factsheets/press.epx?pressid=5125.



Bernd Mosbrucker is Director and Head of Application Solution Management for Adaptive Fulfillment Networks Solutions in the SCM area, including Transportation, Warehouse Management, and Order Fulfillment/Global ATP. Prior to joining SAP AG, he worked in sales and consulting at IDS Scheer AG. He has been involved in many SAP APO and SAP R/3 implementation projects. He can be reached at bernd.mosbrucker@sap.com.

Non-Linear Thinking: Why Fast, Efficient Transportation Is Best Suited to an Adaptive Supply Chain Approach

Responding to the demands of today's highly competitive global environment, traditional linear supply chains and their sequential processes are evolving into complex, global ecosystems that are highly responsive to customer requirements. These pull, or demand-driven, environments, working in conjunction with traditional push environments, are known as **adaptive supply chain networks** (ASCNs).

ASCNs allow all stakeholders in the supply chain, both inside and outside an enterprise's boundaries, to share knowledge, make collaborative decisions, and sense and respond immediately to changing conditions. An ASCN can connect the information chain across departments and companies better than a traditional, linear supply chain can; the result is improved collaboration with partners, suppliers, and customers. Multiple ASCNs, including those outside your sphere of influence, must work together and create an ecosystem. Most importantly, an ASCN will allow you to profitably restore order in the chaos of a modern supply chain.

Within the transportation arena, an ASCN relies on tightly integrated and transparent processes to handle many elements, such as freight procurement management, forecasting of shipment volumes, and planning and executing of shipments. From an economic viewpoint, careful handling and monitoring of transportation spend – as well as visibility into all activities through KPIs, scorecards, and other important analytic tools – are required to keep your ASCN running smoothly.

Remember that hope is no longer a strategy — you can't hope that your transportation plan is going to work. You need to be certain that you can manage transportation in the context of your overall supply chain.

has become a complex process into which you must factor several emerging trends (see **Figure 1**):

- **Transportation now involves a widespread network of partners and logistics service providers (LSPs)**, through which raw materials, parts, and finished goods must be moved quickly and accurately from point to point along the supply chain. Partnerships help shippers minimize inventory and manage more sophisticated practices such as flow-through and merge-in-transit, but they also put efficiency and visibility on center stage in a company's supply chain efforts.
- **Transportation is now a big business that has produced a sprawling global transportation landscape.** It's no longer good enough to know the best transportation providers or routes in your small cross-section of the world; companies must look at the total number of pieces of transportation equipment available worldwide, and know exactly how much inventory is tied up in each channel.
- **External factors, including unpredictable costs and capacity constraints, have changed the way companies think about transportation management.** Rising fuel costs have put a crimp in carriers' willingness to take unprofitable routes, and carrier capacity and driver availability has

been limited — by as much as 8% — with recent changes to the Hours of Service (HOS) regulations imposed by the Federal Motor Carrier Safety Administration (FMCSA).² As a result, the relationship between shippers and carriers has become a much more collaborative one, focused on driving up profits.

- **Consumer demand has increased, and user expectations have increased along with it.** When companies navigate today's transportation system, they have a smaller margin for error than ever before. To meet customer demand, goods must reach their destination in an economical and timely manner, with clear visibility into transportation time and rates. For example, if a customer pays extra to ship an item in two days, you've got to be sure that you can fulfill your commitment — customers no longer accept substitutions or delays.

To address these trends, companies need a transportation organization that has fast, streamlined business processes; works efficiently with network partners; and makes timely, profitable decisions. To get there, companies should focus on improving their

² See www.fmcsa.dot.gov/rules-regulations/topics/hos/hos-2005.htm for more information about these regulations.

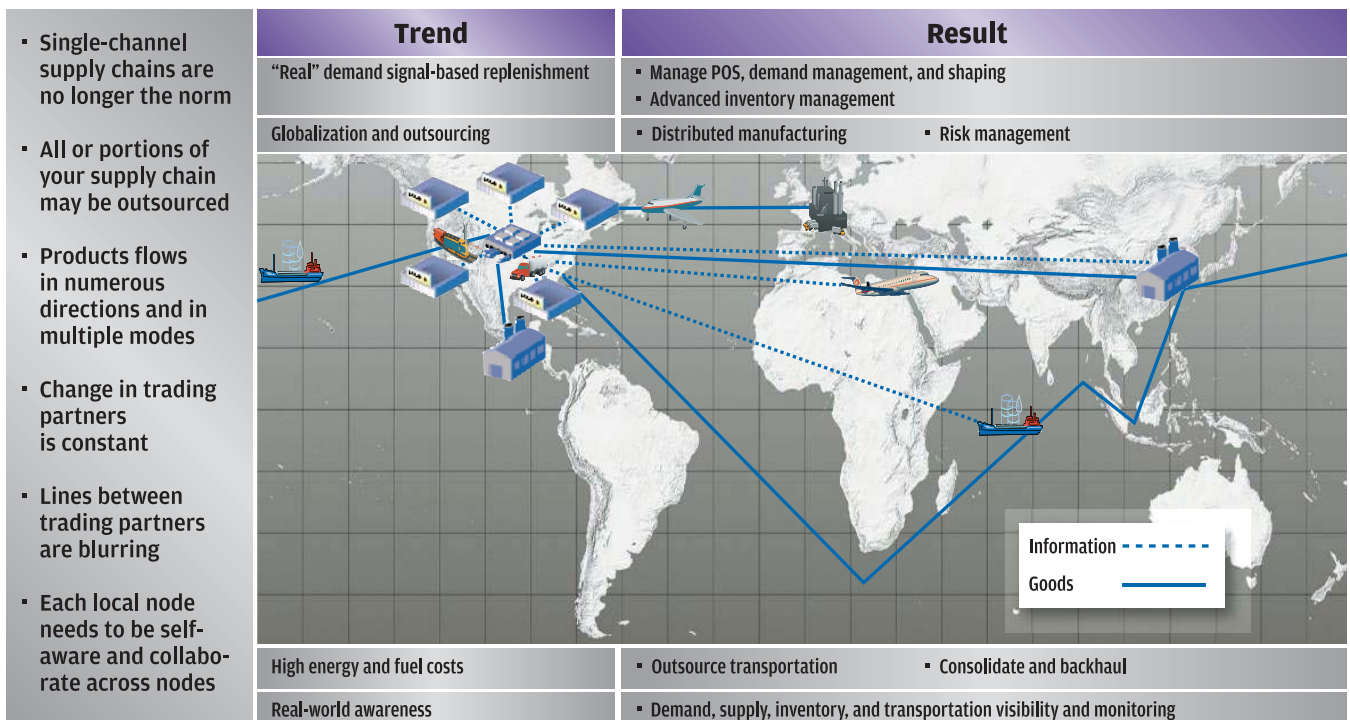


FIGURE 1 ▲ The changing trends of today's supply chains and fulfillment network; transportation has become more complex than getting from point A to point B

transportation speed, service, and flexibility while still reducing costs. But how?

4 Steps to Achieve Industry-Leading Capabilities

To develop these fast, streamlined, and profitable business processes, companies need to start looking more strategically at how they can use transportation as a competitive differentiator. A company seeking to achieve more efficient transportation and greater profitability must make significant changes in the way it performs every phase of the transportation process:

1. Implement new transportation and distribution strategies to improve carrier capacity utilization

Do You Know Where Your Transportation Providers Are Headed?

A Look at Future Transportation Management Business Models

To remain profitable in increasing-cost, low-margin environments, logistics service providers (LSPs) are developing different transportation management strategies. Three distinct business models seem to be evolving, and companies can expect to see transportation providers moving in these directions:

- **Yield innovators** include companies that arise from the rail, trucking, and container-shipping segments. They are typically asset-intensive, provide a standardized service in a certain area or region, and face fierce competition since their services can often be considered commodities. The goals of the yield innovator model are to make better use of assets through asset optimization, process excellence, cost control, and standardization, as well as to drive costs and maximize output by streamlining processes. Yield innovators achieve lower costs by optimizing operations and increasing automation with standardized IT platforms.
- **Portfolio innovators** include companies whose primary goal is to quickly move into profitable areas, exploit them, and, once they become a commodity, move on to the next area of growth. These companies try to in-source complex core execution processes that their customers would typically outsource, such as backhaul, multiple stop routing, freight audit and pay, or demand planning and forecasting. Portfolio innovators rely on flexible IT infrastructures that can be easily tailored to quickly changing customer needs.
- **Orchestration innovators** provide a one-stop shop by taking over the entire transportation function. Customers looking to completely outsource their logistics can rely on orchestration innovators to subcontract all operational tasks to third- and fourth-party logistics providers. By focusing on streamlining overall process management and increasing visibility, companies using this model can ensure customer satisfaction and smooth execution of supply chain activities. Orchestration innovators see connectivity between all parts of the supply chain as core, since it allows for increased visibility into processes, lower costs, and smooth execution to ensure customer satisfaction.

in a time of constrained carrier supply. Consider, for example, that every time you call a certain carrier to tender a load, the carrier denies your request. Why? Because every time they come to pick up, you're not ready. A new transportation strategy here could be something as straightforward as meeting your promises to the carriers – increasing your tender acceptance rate goes hand in hand with increasing capacity. Also, transportation companies must adapt to integrate new external trends, such as online delivery tracking, global trade, and offshore manufacturing.

2. Work efficiently with network partners to take advantage of last-minute opportunities.

Unlike days past when suppliers teamed up with only one primary carrier, suppliers should avoid putting all of their eggs in one basket. It's very rare that one carrier can handle 100% of your capacity, and strategic partnerships with multiple carriers can make you much more nimble in the marketplace.

3. Improve real-world visibility of transportation events and integrated business and logistical activities.

Improved visibility is directly tied to meeting customer expectations. In this case, your customer could be the end consumer that's going to receive your product, or the next distribution facility on a carrier's route. By providing enhanced visibility throughout the network, events can be detected in real time and, if required, appropriate actions can be taken to improve customer expectations and increase profit margin.

4. Consider outsourcing if transportation is not one of your core competencies.

Upon a closer look, some companies may find that they simply can't fill transportation needs as well as a third-party provider. You need to get products to market faster and more effectively in today's marketplace, and if that can be better accomplished through outsourcing, then you should strongly consider it. As you select a transportation service provider, ask yourself if you're looking for a point-to-point solution or a more strategic opportunity (see sidebar).

How SAP's Open, Integrated Approach Can Drive Innovative Transportation Management

Underlying your strategic changes in transportation management must be a solid IT infrastructure that

can support your efforts. As companies aggregate vast amounts of transportation-related data, connectivity and visibility become essential factors in making sound business decisions. Moreover, an integrated IT solution is paramount for companies who wish to streamline operations, achieve financial and strategic objectives, and meet customer expectations. But which technology mix is best-suited for your company's business model? Answering that question requires a closer look at today's IT environments.

Currently, most IT systems are monolithic – they are hard-wired and often rely on humans as the interface to connect complex landscapes. At the same time, core operational processes rely on this infrastructure, and there is no way to simply switch one landscape off and turn on a new one. The transition needs to be performed in small, digestible steps by leveraging existing investments and using a common language to connect legacy and future systems.

An enterprise service-oriented architecture (enterprise SOA) supports this paradigm by combining services, such as Web services, with the business semantics and process logic needed to build unique business processes (see **Figure 2**). A service-oriented application and integrated business process platform can drive innovation and enable business change by running services developed by SAP, other vendors, or in-house IT departments. The services are then used to compose end-to-end business processes called composite applications. This approach has many advantages, including cost-containment by reusing services, lower cost of change as a result of business process composition, and faster operations through the use of standard interfaces.

The transportation industry can greatly benefit from such business process innovation. For example, the reality for the fulfillment side of today's adaptive supply chain networks is based on SAP's **adaptive**

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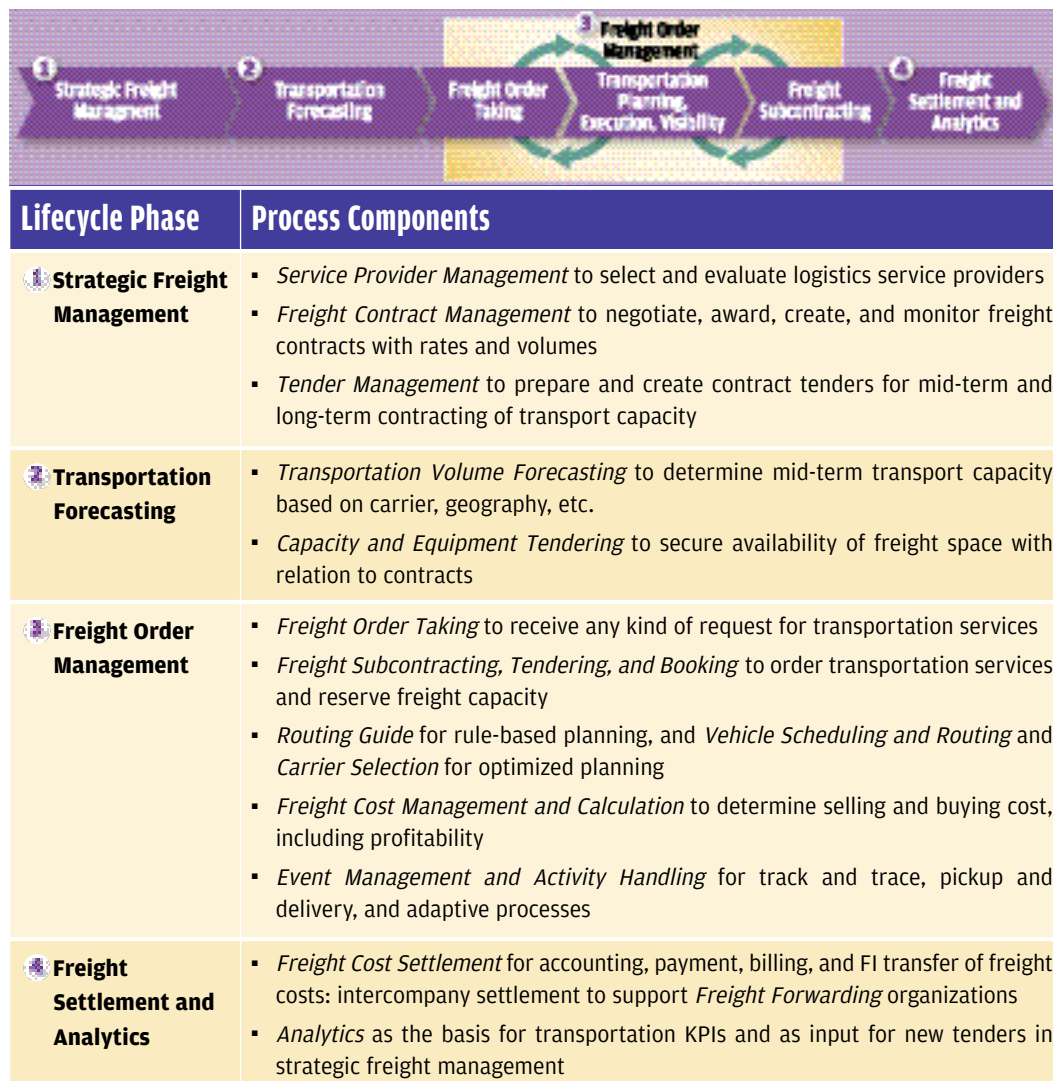


FIGURE 2 ◀ An overview of SAP's process-based approach to transportation management

fulfillment network (AFN) strategy, which includes the ability to continuously change processing and operations – and adjust plans and activities – based on real-world, real-time information. This information will be exchanged with collaboration partners, mobile assets, service centers, and customers. It is SAP's vision to not only deliver a transportation solution, but to embed transportation into this fulfillment network so that it becomes one with yard management, costing, and warehousing, all of which are based on business process innovation, adaptive and flexible solutions, real-world information, and an established partner ecosystem for fulfillment.

Conclusion

Transportation is global, and it poses major cost-saving opportunities for your business. SAP customers should take a fresh look at their current transportation management strategy and start taking strides to strengthen carrier partnerships and improve the cost, visibility, efficiency, and capacity of their transportation plans. Information technology is a major cornerstone of this evolution, and each company will derive

a different approach to move from today's point-to-point business models toward an adaptive transportation network. Since no transportation management strategy will be able to exist on its own, it will become even more important for one IT platform to support various business models. ■

Additional Resources

- www.sap.com/scm
- Sessions in the *Logistics, fulfillment, and transportation management* track at the *Logistics and Supply Chain Management 2007* conference in Barcelona and Orlando (www.sapscm2007.com)
- “Planning with TP/VS: The Third Pillar of Transportation Management” by Adolfo Menéndez in the August-September 2006 *SCM Expert* (www.SCMexpertonline.com)