#4 of Four TMS Perspectives

Managing all **Domestic** and **International** Transport Together

As global trade encircles the world in twisting, complicated ways, profit margins are decreasing everywhere. Supply chain expertise is becoming a crucial means of differentiation. There's great pressure to create agile, responsive, and risk-proof supply chains while curbing costs and improving overall efficiency.

Any serious effort to reduce costs cannot ignore transportation. Second only to the direct cost of goods themselves, transportation is an organizations's highest indirect cost. Despite this, there's been limited effort to reduce it. The main reason is that in most organizations, transportation spend gets distributed across multiple silos.

Organizations have looked to transportation management systems (TMS) to optimize transportation and costs within these silos. But traditional TMS technology limits just how much cost organizations can remove, and does not address the larger goals of supply chain agility and responsiveness.

This four-part series focuses on a new type of TMS, one that is not just globally aware, but is rooted in the very idea of breaking down silos and encouraging transparency. This new TMS — a global TMS — is end-to-end, network-based, and trans-business. It looks to optimize costs, savings, and efficiencies – without a massive rip-out-and-replace project.

This Perspective Piece explores the notions of domestic and international transport, and how they combine.

#1 Creating a Common Foundation for the Agile Supply Chain

#2 Using Communities to Bridge Partitions

#3 Focus on Customer Experience from a Global View of Supply Chain

▸ **#4 Managing All Domestic and International Transport Together**

The Geography of Transportation

Today, transportation management systems are specialized and largely geographically limited, mostly managing land-based transportation within North America or Western Europe. Other geographies including Asia-Pacific and South America, as well as international transportation, have not been the focus of transportation managers or TMS applications. There is general agreement on the need to address these gaps to enable agile and responsive supply chains. Various large enterprises, logistics service providers, and industry analysts see the need for a single "ubiquitous" logistics network in which an organization can plug in once and have access to any and all of its partners and information.

Many TMS system providers advise first to "focus on domestic." But what does "domestic" actually mean? Transportation operations in North America, Western Europe, South America and Asia-Pacific have very different requirements. Most of the applications focus on domestic US geography while a smaller number is able to address Western European operations with some limitations. They operate in silos. Even when they address the functional requirements of other geographies, they stay too expensive to justify an implementation in a silo. These gaps highlight the need for a single view, connecting all domestic and international transportation through a common foundation.

A Look at International & Domestic Transportation

International and Domestic transportation processes have very different characteristics and pose different challenges. These processes have traditionally been managed differently, so much so that there is hardly any overlap between the groups managing them, between the processes themselves, and between the applications and partners primarily used.

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FIGURE 1: liminating barriers between domestic & international: A global view eliminates pockets & silos.

For example:

- Multi-stop truck routes are a big part of any domestic transportation setup. International transportation requires a multi-leg, multi-mode, multi-carrier strategy in almost all cases.
- Transit times in ocean transportation, primary international transportation mode, are measured in days and weeks while domestic transportation worries about hours of service.
- Ocean booking itself is a multi-step process and starts when little is known about what a shipment may look like. The first time a domestic carrier receives a tender is when the load has already been configured.
- International transportation planning is still a primarily manual process with little or no optimization. Domestic planning operates in an automated or semi-automated way with a fair amount of optimization.

Organizations have to manage these transportation operations for different geographies. Connecting these silos in terms of processes, information models, and partner communities and bringing them into a single global view of the supply chain is essential.

The Characteristics of TMS: International versus Domestic International Transportation

- Contains unique planning and execution requirements not traditionally addressed by domestically oriented transportation management systems designed for truck and rail transport.
- Base functionality set includes procurement, contract management, execution, audit and performance management. Support for multi-leg, multi-modal shipment optimization is a bigger requirement along with automation and exception management.
- Domestic Transportation capabilities typically exist to plan domestic freight movements, perform freight rating and shipping across all modes (truckload, less than truckload, air, parcel, rail and intermodal), consolidate orders, select the appropriate route and carrier, communicate (tender) with carriers, and manage freight bills and payments.
- Vendors support North American multi-modal planning, execution and settlement.

Getting There

A global view of transportation brings together international and domestic TMS to enable cross-silo planning optimization, execution and visibility. This opens the door to realization of cost savings "within the silo" and "cross-silo." More importantly, it builds efficiency and agility into the supply chain thus enhancing customer experience.

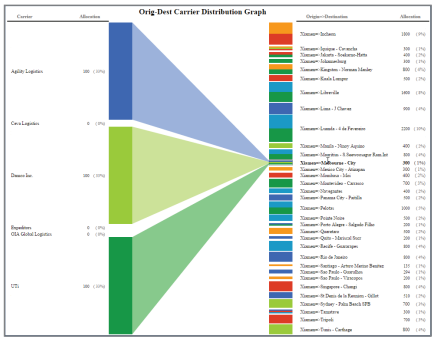
Supply chain visibility allows an organization to see and understand how it is operating and find inefficiencies across all regions and modes. Proactive supply chain managers contextualize this picture with a connected global view and support it with planning and execution capabilities to drive compliance and manage by exception. Building this level of view and control requires deep considerations.

The typical supply chain at a large company has a number of internal ERP systems, portals, and various supply chain applications. Add to that the number of partners they work with: carriers, 3PLs, freight forwarders, banks, and first tier and second tier suppliers. Considering all of these parties, the functions they serve, and the different signals and applications already being used, the idea of standardizing on one TMS seems quite daunting. Companies have multiple business units, different products, different markets and varying supply chain requirements. It is indeed a futile exercise to converge to a single application.

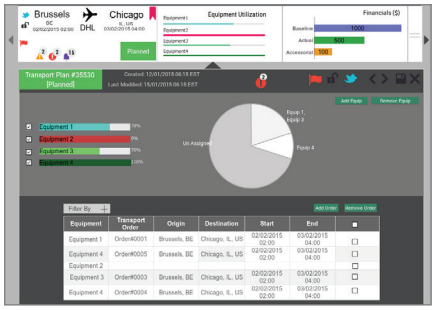
A strategic, global approach says, "Let us standardize the information flow and build a community model around the supply chain data — allowing for local community-based process needs — allowing all supply chain partners to collaborate on it."

The key is placing an end-to-end supply chain layer that all existing applications can plug into. This delivers a single platform for controlling, planning and viewing all

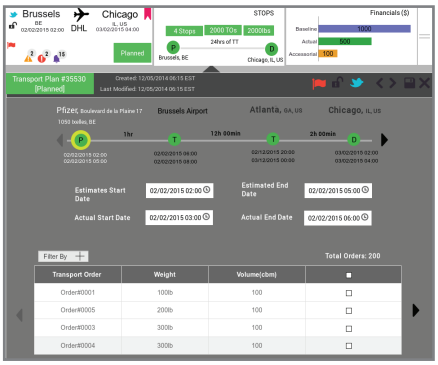
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Sourcing Analytics



Built-in-Dashboards



Manage Exceptions

data, regardless of region or mode. Data is integrated and everyone views and uses the information in the format they require. Most importantly, different messages from other partners and updates from carriers or suppliers are captured. Anything happening in the supply chain that impacts a customer shipment resides inside that layer, providing true end-to-end execution and visibility through a supply chain control tower.

The difference in this approach is that companies don't have to build or standardize or replace applications and partners. There's no forced standardization of processes requiring a local or regional approach. TMS in a cloud-based layer brings together all supply chain applications and partners and integrates the data flow to empower all users. Barriers that once existed around international and domestic transportation become a thing of the past. Silos between regions, departments and parties are dissolved – replaced by a single global view — and a new kind of TMS, a global TMS, can take shape.

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