American Shipper

2016: The Year We Network Our Supply Chains



Introduction

It's hard to find something that resembles more closely the idea of a network than a supply chain. Which makes it all the more ironic that the vision for decades has been of a chain tying trading parties and all their constituent partners together. Supply chains have largely been built and executed as if they were long relay races, with a baton being passed from sourcing to ordering to manufacturing to transportation to compliance to warehousing to fulfillment. In many cases, these legs of the relay race take place in isolation, as if the other legs don't exist.

A more modern approach is to view supply chains not as chains at all, but rather as networks of parties with a mutual interest in moving goods from one location to another within a specific timeframe. This network effect is enabled by technology that captures supply chain data—from order to execution—that is available to any partner in the supply chain at any time.

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It's also enabled by a workflow and societal culture that demands access to real-time information on a constant basis. While supply chains should have been functioning as networks all along, it's only recently that technology has empowered this network effect to come of age.



As 2016 emerges, a growing number of businesses are recognizing the necessity of a networked supply chain to deliver a "central nervous system" that has been lacking externally amongst communities of trading partners. And these trading partners are, at the end of the day, a direct extension of the business itself. There's no separating the two. Suppliers, truckers, railroads, shipping lines, logistics companies, customs brokers—any party that touches a shipment can be seen as a representative of the supply chain

I. Why the Network Approach is Significant in 2016

Let's look at this growing need for a network approach through the lens of what is likely to happen to supply chains in 2016. First, there are macro level technology developments that are indelibly changing how companies manage their supply chains:

- Companies are by now accustomed to managing more data than they ever did before, but that data is only going to increase exponentially as they get access to more information feeds.
- The Internet of Things will drive that data volume ever higher, but also has the power to enable a higher degree of visibility.
- On-demand, cloud-based supply chain software is now an entrenched, accepted way to address critical execution areas.

And second, there are specific global issues that will make supply chains more complex in 2016:

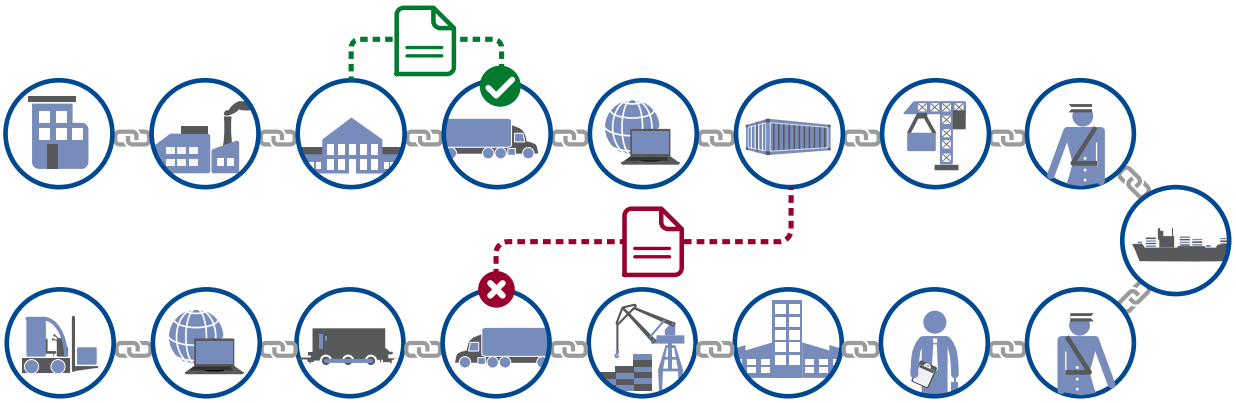
- The Trans-Pacific Partnership (TPP) could well go into effect next year, a development that will likely compel companies that source in Asia to redirect their supply chains to take advantage of lower duty levels among TPP members. That will yield lower tariff costs, but will increase complexity.
- Stagnant ocean freight demand will drive ocean carriers to restrict capacity in 2016, through broader alliance formation, vessel layups, and skipped sailings, to drive up rates.
- A looming trucker shortage in North America will have shippers considering supply chain networks that are less reliant on hard-to-secure truck capacity.

II. Inward-facing Supply Chains Will be More Difficult to Manage in a More Connected World

The traditional process for building supply chains has been for shippers to look at their own needs—suppliers, factory capacity, transportation capacity, warehouse space, logistics help at origin, and systems to help manage this all.

The problem is that approach is inward-facing in nature. Shippers that focus on their internal needs to such an extent tend to implement processes that are siloed.

Companies Within a Supply Chain Have Trouble Sharing Information



Let's examine a couple specific examples. Key functions like transportation procurement and inventory management are regularly locked within one department, often walled in further within the confines of an unconnected system (if a system is being used at all). Worse yet, procurement at multiple locations might be siloed even within a single organization. That same organization might have little visibility into its inventory levels (both in-transit and static) across its disparate transportation providers, distribution centers, and stores.

This manifests itself in supply chain inefficiencies. Transportation procurement as a whole might well be siloed from other supply chain functions within that same organization, so that sourcing decisions, for example, are made with little consideration of whether capacity can be effectively secured. A lack of visibility into inventory hampers a company's ability to respond to a spike in demand or react to a disruption because there is no real-time picture of what is actually in stock or in the pipeline.

The problem that runs through this siloed arrangement is that companies often fail to have a robust system of record that acts as connective tissue for their end-to-end supply chain. Thus companies fail to share information in an effective, accurate, and timely way to make decisions that would benefit the entire organization.

And that's just the start. This inward-facing orientation creates even more dissonance when a shipper has to work with its myriad external trading and logistics partners. Just think: if a company has trouble sharing and accessing a single version of data within its organization, how could it possibly do so with its service providers and suppliers?

All the while, the world is getting more intimately connected, and at light speed. Overarching commercial and societal trends like the Internet of Things and social media mean that data is being created in exponentially bigger volumes each day. Companies that fail to house critical data that needs to be shared among multiple parties now can't possibly hope to keep pace in a world where the volume of data keeps getting bigger relative to the volume of cargo they move.

That is, they can't keep pace if they keep doing what they've been doing.

III. Demand for Quality Starts with Sourcing and Continues with Logistics



Another thread to monitor in 2016 is increasing demand for quality. Shippers managing international supply chains realize that every single point of contact with their brand is a chance to succeed or fail. That stretches from the quality of product a supplier produces to the speed with which that product reaches a manufacturing facility, warehouse, or store shelf.

With increasing customer expectations comes the need for all parties in a supply chain to be connected in real time. A shipper is only as reliable as its weakest trading partner, supplier, or transportation provider. So it shouldn't have to rely on a partner that doesn't have access to information that all other parties have. That's the old way of building a supply chain—by stitching together discrete transactions that are all dependent on everything happening as they should. Like a carefully laid chain of dominos, that setup is rife with vulnerability and fragility.

A more sophisticated approach allows for the manager of the shipment to bypass bottlenecks by getting access to information sooner, and responding on the fly. So if an order from a particular factory is deemed substandard, that information is relayed in real-time, allowing the importer to switch to its already established contingency plan, such as sourcing from a secondary factory. Just as important, all the other parties attached to that shipment are alerted immediately about the substandard order. Transportation providers and 3PLs can act correspondingly, setting up drayage and ocean capacity near to the site of the secondary factory.

This type of information-sharing also fosters greater agility from the factory level down, enabling shippers to execute direct shipment strategies or other sophisticated omni-channel demands being placed upon them.

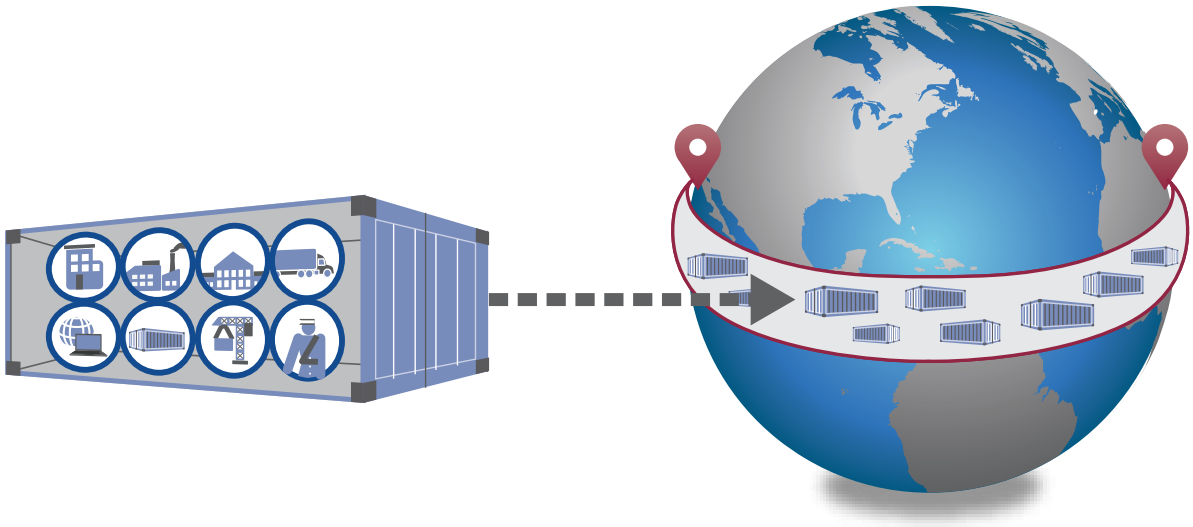
In a supply chain that acts like a chain of dominos, the shipper might not have been alerted to the order quality issue until it had taken delivery of the consignment at its distribution center. It would have little ability to tweak its distribution strategy to account for new customer expectations.

IV. Blurring the Lines Between Enterprises

This reshaping of supply chains is essentially about one core concept—the lines between enterprises that work together are indelibly blurring. Consumers see a product on the shelf and only attach one name to that product. They don't think of the name of the forwarder that arranged transportation or filed the customs paperwork at origin. They don't think of the shipping line that brought the product from one continent to the other. They don't think of the production facility where the product was made, nor the warehouses it was stored in at origin or destination.

So if a single brand is attached to a product, why shouldn't the enterprise whose brand is at stake ensure that all its supporting parties are tightly connected? In essence, the goal should be to think of each shipment as a single "micro-enterprise," with all the parties connected to that shipment working as closely as legal, human resources, and finance would within an organization. All those parties should be connected by the data that binds them.

Each Shipment is a Micro-Enterprise



V. Supply Chains Become More Prominent Within Organizations



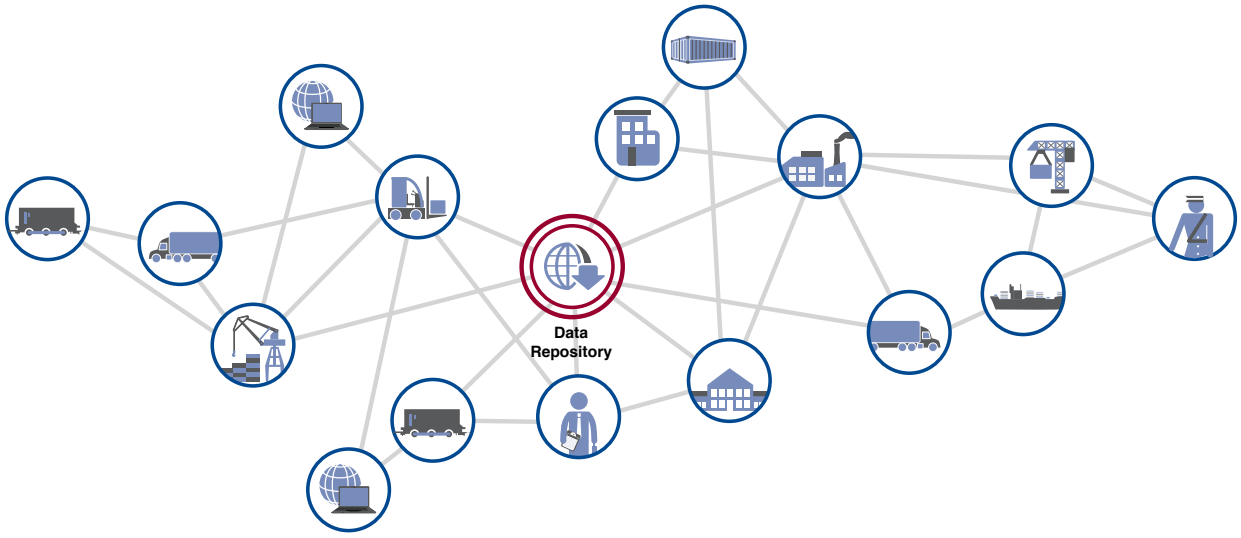
One undeniable trend in 2015 that will surely continue into 2016 is the rise in prominence of the supply chain within importing and exporting organizations. Simply put, companies that move goods across borders have realized their reputation is built upon a reliable supply chain. And building that reliability only comes when all the disparate personnel and data that comprises the supply chain is connected through a data hub or system of record.

There's also been a rise in the number of companies who have designated the role of "chief supply chain officer." This signals that companies understand the importance of this cohesiveness across their organizations. The question is whether they have the platform to enable that cohesion internally and externally.

VI. Moving from Supply Chain to Supply Network

So the goal should be to revise how supply chains are visualized—from the idea of links locked together in an unbreakable relationship to their nearest links to one where any party can access any other party through a centralized set of data. *A network approach to supply chains.*

Companies That Convert to a Supply Network Can Share Information at all Points



The idea is gradually gaining traction, but it takes a mindset to make it work. It takes trading partners and service providers willing to work closely together, to be willing to exchange key information, and to view each shipment as a sort of micro-enterprise unto itself, tied together with the data that is both specific to that shipment and crucial to all.

Given all the external dynamics shippers are faced with—volatile pricing and capacity in transportation markets, political instability in sourcing regions, natural disasters, and the potential for a massive new free trade agreement that covers key markets on four continents—failing to view your supply chain as a supply network could have drastic consequences.

Networked Supply Chains

Appendix A: About Our Sponsor



GT Nexus

GT Nexus operates the world's largest cloud-based business network and execution platform for global trade and supply chain management. Over 25,000 businesses across industry verticals, including adidas Group, Caterpillar, Citi, Columbia Sportswear, DHL, Electrolux, Levi Strauss & Co., Kohl's, Nestlé, Pfizer, Renault, and Sears share GT Nexus as their standard, multi-enterprise collaboration platform. This enables all network participants to operate against a core, real-time and always on set of information across multiple supply chain functions, allowing them to optimize the flow of goods, funds and trade information, from the point of order through final payment. For more information please visit us at www.gtnexus.com.

Appendix B: About *American Shipper* Research

Background

Since our first edition in May 1974, *American Shipper* has provided U.S.-based logistics practitioners with accurate, timely and actionable news and analysis. The company is widely recognized as the voice of the international transportation community.

In 2008 *American Shipper* launched its first formal, independent research initiative focused on the state of transportation management systems in the logistics service provider market. Since that time the company has published more than a dozen reports on subjects ranging from regulatory compliance to sustainability.

Scope

American Shipper research initiatives typically address international or global supply chain issues from a U.S.-centric point of view. The research will be most relevant to those readers managing large volumes of airfreight, containerized ocean and domestic intermodal freight. *American Shipper* readers are tasked with managing large volumes of freight moving into and out of the country so the research scope reflects those interests.



Methodology

American Shipper benchmark studies are based upon responses from a pool of approximately 40,000 readers accessible by e-mail invitation. Generally each benchmarking project is based on 200-500 qualified responses to a 25-35 question survey depending on the nature and complexity of the topic.

American Shipper reports compare readers from key market segments defined by industry vertical, company size, and other variables, in an effort to call out trends and ultimate best practices. Segments created for comparisons always consist of 30 or more responses.

Library

American Shipper's complete library of research is available on our Website: AmericanShipper.com/Research.

Annual studies include:

- Global Trade Management Report
- Global Transportation Procurement Benchmark
- Global Transportation Management Benchmark
- Global Transportation Payment Benchmark
- Import Operations & Compliance Benchmark
- Export Operations & Compliance Benchmark

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