

eBook

Transportation & Logistics Execution

Gaining the competitive advantage



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Introduction

Logistics and transportation companies are under constant demand from customers to reduce prices, improve services, and increase visibility. Customers want versatility, more data and greater interoperability — all with strict cost controls.

Traditional EDI processes, often slow and inflexible, are no longer adequate to meet your information exchange needs, or those of your customers and partners. Now more than ever, it is crucial for transportation and logistics companies to adapt and evolve in order to meet the growing demand from customers. E-commerce is growing exponentially, and with it comes a wide array of challenges, threats, and opportunities.

This eBook will broaden your education on:

- What is driving the need for immediate change?
- The biggest threats to your logistics and transportation organization and how you can prevent them.
- Transportation and logistics trends.
- Transforming IT in global logistics for a strategic advantage.
- The proven solution for gaining the competitive advantage (how you can maximize profitability, grow your value network, accelerate customer acquisitions and onboarding, reduce costs by 30-50%, and experience a 3-5X faster speed to market).

What Is Driving The Immediate Need For Change?

If you took the time to read our eBook “Logistics Industry: Cloud Technology Is Changing The Game” then this section will look very familiar. That is because we have reiterated the content verbatim in this eBook. We concluded that the information provided in this section is so imperative, it simply could not be left out.

Customers/Consumers

Customers and consumers want more data or information. With the growth of mobile phone use and the ease of access to the Internet, people are demanding information in real-time. They expect visibility into their package movements, the ability to change address or drop off location and easily return the products if needed. Merchants and marketplace are demanding the same thing from their carriers/agent/forwarder partners. Driving competition and more stringent SLA's.

New Technology

We have to understand what is happening in the world of logistics, transportation software, and services. The volume of start-up companies in this space is growing at 65% year on year, essentially unbundling many of the software and services provided by shipping and logistic giants. These start-ups have the ability to adopt newer technologies, be leaner, and provide services at significantly less cost. There are many options available to e-commerce/retailer and manufacturing companies. Traditional services no longer provide the best value. The big thing is the agility and speed to operate. Old technology tools do not support this.

“Augmented reality (AR) is the real-time use of information in the form of text, graphics, audio and other virtual enhancements integrated with real-world objects. It is this “real world” element that differentiates AR from virtual reality. AR integrates and adds value to the user’s interaction with the real world, versus a simulation.”

Gartner

Augmented Reality

Augmented reality is the ability to enrich objects you see with layers of computer-generated information. Augmented reality is going to become commonplace within supply chain logistics; first mile, last mile and warehouse picking applications.

The key to augmented reality is the ability to integrate systems so that rich media can be embedded within the message or data. From there, the integrated data can be streamed to mobile devices or through glasses. Bots are the key element to increase the conversation with the physical flow of shipments. Real-time discussion with end-points supporting the flow, e.g. end-customer can ask by Skype at any point the location of the shipment, discuss with the possible sensor temperature, etc.

The critical component to this is integration agility and speed between systems that contextualizes and visualizes the environment the person is working in with the appropriate media.

E-commerce

If E-commerce is changing the way we shop, it's also changing the way we ship. This is creating inefficiencies that weren't present before. Unpredictability is becoming the norm. E-Commerce and free shipping have resulted in smaller boxes and more shipments as consumers buy what they want, when they want. A proliferation of distribution centers means that such boxes are often being moved shorter distances, or even shipped in separate packages from different warehouses.

The importance of inventory, order and track-and-trace data in real-time across the retail supply chain can help overcome the unpredictability. This can only be achieved using real-time interoperable integration.

Accompanied by the growth of E-commerce is an increase in ships, ports and infrastructure necessary to deliver the goods to the consumer. Even with the reduced cost of ocean freight, total shipping costs are still on the rise, along with minimum order values for free shipping. The larger component of that shipping cost lies in last mile delivery services.

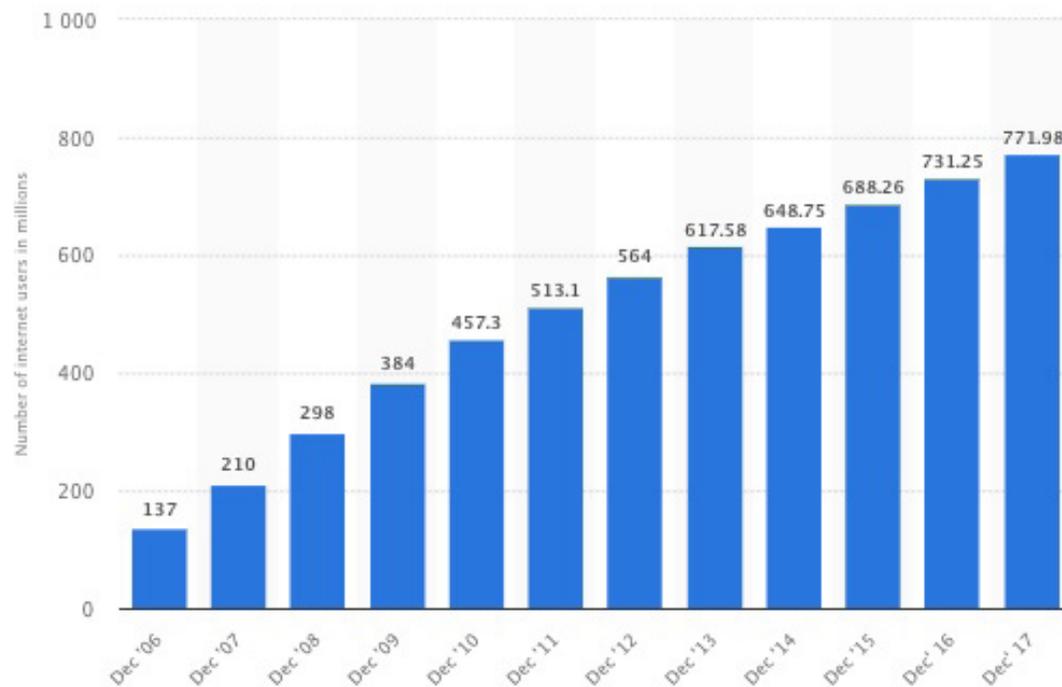
Shipping investment

Changes happening in shipping will greatly reduce the cost of inter- continental shipments. There has been significant investment into new ships/vessels, new ports and other infrastructure. This investment will make way for exponential growth in shipping capacity.

- The expansion of the Panama Canal from 5,000 to 13,000 TEU.
- Significant investment around the world in container terminals. Shanghai Port continues its growth and expansion.
- Worldwide 110 vessels between 10,000 and 18,000 TEU to be delivered by 2016.
- Major cargo sharing agreements. For example the P3 Alliance (involving Maersk, MSC and CMA- GGM) that operates 38% of the world's container capacity. These alliances and co-operative agreements enable more sharing of data, more integration and more real-time actions/statuses.
- Investment in Rail to move containers across countries or continents. (Trans-Eurasia Rail)

The China effect

The market opportunity in China is immense for e-commerce and online shopping. The online population in China is 648 million, but only half participate on online commerce. More than 500 million Chinese access the Internet via their mobile device, and are the leading mobile online shoppers. Online market places make up 90% of all goods purchased in China.



Number of internet users in China from December 2006 to December 2017 (in millions).

The Biggest Threats To Your Logistics And Transportation Organization

Despite the fact that the logistics industry is experiencing major changes, some companies have been blind to the fact, and well, the outcomes have not been favorable.

Although there seems to be a relative calm, the needs and demands of shippers are growing. Same day delivery, sometimes down to hours and hyper local (point to point), is the new norm. Shipping is no longer a tactical decision driven by cost. New considerations are more strategic, factoring in the likes of customer expectations, sales volume, and/or product mix. Shippers want logistics partners that can operate across their diverse supply chains and distribution networks, while maintaining a high level of performance during high demand or disruptive periods, like 'Singles' Day or labor disputes.

The expected exponential growth of e-commerce, and the inroads it's making in b2b and cross- border activities, is causing great complexities where transparency and tracking requirements are critical. We are seeing an expanded need for services that manage perishables, high-margin valuable and/or sensitive products, such as groceries, electronics, pharmaceuticals, high value fashion and electronics that require exceptional handling, refrigeration, security, reliability and tracking across all partners.

These trends are creating new demand patterns for the commercial freight transportation and logistics industry. Here we talk about five of the biggest threats to your transportation and logistics organization, and how you may be able to prevent them from affecting you. Small or large, all are susceptible.

Even the largest global forwarder is feeling the pressure. Roger Crook, the CEO of DHL global forwarding quit back in April 2015, under mounting pressure of their failed IT project. More recently, it was thought that DHL global forwarding might be up for sale.

Freight carriers face four different types of disruptors; here are strategies to defeat them.

New nimble competitors are entering the market. They provide new and different services at competitive rates that leverage innovative technology and are quick and reliable. These providers are the niche or disruptors in the industry.

Local network builders

The biggest move here is Amazon. They are building a network of localized warehousing and distribution requirements that enable speed and flexibility. This is similar to retailers executing click and collect or delivery directly from store. It is really about getting the last mile distribution closer to the end consumer. This is what gives you the speed and flexibility at a competitive cost. Shipper are actively looking for these types of services.

Crowd sourced solutions

UberRush is the new player here. The interesting thing, is an entire business can disappear overnight. There are many crowd source solutions that are making an impact in the industry, see below.

These organizations have flexible models for workforce management, non- union individuals. They leverage mobile or new technologies to connect shippers to carriers or providers. Time will tell how it goes.

New start up carriers

These companies fly under the radar of the large carriers. They target new and small shippers that have small volumes but require a specific and differentiated product and service. Their offerings often go beyond shipments to a broader set of logistics activities, such as website design and online channel management.

Full service providers

These providers are looking to provide or meet the demands of all customers with a range of services, forwarding, line haul and last mile. They can scale there business to meet demand, leasing assets as needed to complement their own controlled equipment. To expand lines of business they are looking to acquire assets and make smart acquisitions. Through these acquisitions, they can grow profits while reducing overhead. We have seen many instances of this in the last 18 months.

- DSV acquires UTi Worldwide for \$1.35 billion.
- XPO logistics acquires Con-way freight for \$3 billion.
- UPS acquires Coyote Logistics for \$1.8 billion.
- FedEx acquires TNT express for \$4.8.
- Japan Post acquires TOLL holding for \$5.1 billion.

It doesn't stop there. The list is long.

The question now must be, how can you strengthen your operations and grow your customer base? Just like Amazon many capable organizations are going to rise. This means there is a substantial need for you to develop and implement a number of capabilities that will allow your organization to transform. This is critical, because the needs from our customers simply demand this. If you don't you are gone.

Addressing customer demands come in the level of service we can provide them. This starts with giving your people the tools they need to do their job beyond the customer's expectations. You must, however, balance customer needs and operational efficiencies. Empower and encourage frontline employees to address shippers' challenges within the framework of their daily duties. They should be able to provide shippers with greater visibility and maneuverability with respect to the timing and mode of shipments, and they should automatically aid shippers with global, cross-modal solutions — perhaps by mixing and matching owned and third-party services.

The recent acquisitions mentioned above were all strategic in one way or another. Your thought process must be the same. Understand your market, your competitors and the new entrants. When you identify product, operational or services gaps, consider acquiring companies that may fill those gaps. When doing so make sure you have a concise and quick plan for integration.

You have to take on new technology. Specifically, cloud-technology that can be deployed quickly and scale with the business at minimal cost. Cloud data integration and analytics will allow you to capture data across your value networks and analyze it in real time. This provides a broad and more in depth view of operations. Integrate this data with your customers and third party provider systems. As a result, all will have greater supply chain visibility. On top of analytics, implement proactive alerting to monitor processes.

Look at your overall business and operational model. Think outside the box. Develop your own local shipping networks, establish alliances and build partnerships. Start to think more dynamic methods like hyper local, trunk delivery or drone delivery. Create small networks to address the needs of customers like same day or scheduled hourly delivers or swaps. These networks are more flexible and can adapt or absorb supply chain disruptions.

Making these capabilities part of your strategy, or a combination of them, could save you and make you the disruptor in town. Don't sit back. Start planning now.

Transportation & Logistics Trends

Due to the anticipated growth in commerce and shipping, it is obvious that logistic companies need to invest and prepare for the future. In the case of DHL, whose write-downs exceeded €300 million after it abandoned its New Forwarding Environment IT System project in 2015, there was a significant case for change in their IT environment. One that was driven by the trends you will find below.

Driven by the change in consumer shopping habits (Online and Mobile) and retail investment in online strategies, the world of logistics is destined to change forever. As the landscape changes, here are FIVE key trends to keep an eye on in 2016 and going forward.

Growing customer demands and expectations

We simply cannot stress this enough. In a recent conversation with a Supply Chain Executive of one of the largest logistics companies globally, he presented his single biggest challenge was his company's ability to respond to customer demands. Specifically, the challenge was around integrating with customers and providing the right information when they wanted it. Customer needs around data are always changing and the industry is struggling to cope.

A Gartner research report in November 2015 showed that the single biggest factor (74% of respondents) contributing to supply chain complexity was in fact customers. Specifically, this included customer's needs, demands and

expectations.

Of course when we think of this, we need to be alert in terms of the SLA's and KPI's we include in our contracts with customers.

Continued supply chain globalization

It is common practice among many countries around the world to buy products directly from China. Subsequently, retailers are supplying products via Alibaba and JD.com to the 527 million Chinese shoppers. The opportunity continues in India with Snapdeal and Flipkart, with these online markets feeding the savvy Indian shopper. For any retailer or merchant, efficient cross border logistical operations and inventory management is critical.

Growing data complexity; more of it, it is more variable and we want it now

It is all about the data, Big Data. Data integration, data visibility and data analytics. The challenge with the old school or traditional way of doing things is that many of the existing systems do not provide the agility and speed to meet the demands of the new world.

Again reverting back to the Gartner research report in November 2015, 49% of respondents indicated that growing volume, variability and velocity of data were factors contributing to supply chain complexity.

You have to leverage the power of data, real time data integration, analytics and modern cloud solutions. When managed well, these services can also yield substantial cost savings for the carriers and logistics companies that provide them. With speed and agility you can provide a greater level of service to your customers.

E-Commerce growth, more choice, more products, more places to buy from, and more places to collect from or ship to

Again, something we cannot stress enough. Alibaba on singles day racked up \$14B in sales in one day. On Cyber Monday, online sales grew by 16%. At Wal-Mart, mobile accounted for 70% of all online traffic. E-Commerce sales will exceed \$3.5 trillion within the next 5 years. Retailers are pouring millions into their online strategies. More online sales are now done in Asia Pacific than North America. In Europe, click and collect shopping has exceeded 50%. We will begin to see significant change in the US. All of this complexity just adds more parcels, more routes, and more traffic.

Consolidation, alliances and collaboration

Gartner recently predicted that by 2020 the top 10 global 3PLs will control 80% of the world's logistics volume. Back in September, XPO Logistics announced it was acquiring Con-way for \$3B as it extended into the trucking business.

For ocean carriers, alliances (referred to as Mega Alliances) are the name of the game. These 4 alliances 2M, O3, G6 and CKYHE now represent 16 of the world's 20 largest container carriers.

The Air Cargo business is no different. Dominated by the Chinese and Asian carriers, alliances or joint ventures are ways to scale and continue winning business. Lufthansa cargo's alliance with ANA cargo formed earlier this year is a good example of this.

Keeping up with global logistics trends will be essential to survival and growth. If you cannot scale and meet customer demand, it is possible that you may find yourself fighting to dig out of the trenches.

Transforming IT In Global Logistics For A Strategic Advantage

Information technology has always been a key part of all logistics operations. Even in the first postal or courier operations centuries ago, it wouldn't have been possible to deliver goods to recipients without some kind of understanding where the physical items should be delivered. Fast-forward to the current day, and the information requirements are constantly increasing.

Recipient information is still there, but today customers (both senders and recipients) want to know the exact status of shipments. In some cases, the recipient may want to transfer the delivery route dynamically based on his or her current location. In any case, the volumes require that delivery orders and billing are fluent and automated.

Because of this, many logistics operators are struggling. They have been implementing their information systems over decades, and the increasing – especially cross-continent – volumes cannot necessarily be handled by old systems that are possibly designed for domestic or otherwise limited use. As new customers require more and more automation (manual work is slow, error-prone and expensive), there are new requirements for public APIs that operators need to provide. Traditional batch-based information exchange may not be enough anymore, as connected customers and partners want to have everything in real-time. Depending on your age, your improvement backlog can be quite long.

Some of the players that are changing the landscape have taken a completely different approach to the logistics operations. Take Alibaba, for example. With 8.5 million sellers and massive transaction volumes, Alibaba is actually just one huge computer, integrating merchants, customers, payment providers, and logistics companies. The whole concept is based on the effective use of information technology on a scale that is hard to understand by us mortals. Certainly, traditional players understand the need to renew. Because challenges in the physical transportation of goods are pretty well known (the same challenges have been there for centuries), they are fairly simple to understand and act upon. The only way to compete in a changing world is the use of innovative information technology, causing increasing pressure on logistics companies' IT organizations.

The IT challenges in logistics are similar to those in any industry that heavily rely on IT. Transforming to the new century is not necessarily easy, and typical failures in renewing IT can be seen in logistics –the same failures that happen across all industries. In the example of DHL, our educated guess is that DHL tried to do things in a “big bang” kind of way, trying to replace everything at once. If this had worked well, it probably would have been pretty cool. But there are always huge risks associated with a big bang – things like putting the continuity of all the existing operations at risk.

A few months back, Sami Tähtinen, our CTO, happened to watch an old Finnish educational program from the early 70's. The program focused on providing its audience a peek into the emerging IT industry, and explaining different jobs that are available within the industry. Even though some jobs (like filling in punch cards) do not exist anymore, I remember a quote from a systems designer they had interviewed. This young guy, in his suit, sitting behind his desk with a pencil, drawing pad and a fully packed calendar, said something that brought a smile to my face. He said, “The one problem in this industry is that it is so young that all working procedures have not fully evolved. For instance, it looks like every time we are trying to do work effort estimates for a new project, we are always too optimistic... It looks like none of our projects are finished within the estimated work amount or schedule”.

That was over forty years ago, and I bet a lot of people in the IT industry will still agree.

The problem with estimating work efforts, and the risk of “big bang” kind of deployments has been understood within computer programming for a long time. In order to manage these risks, the agile software development principles have been adopted across the software industry. The basic (maybe oversimplified) idea in agile development is to create quick benefits to the customer by first creating quick, working and tested prototypes, and then incrementally add functionality to the existing solution.

Even though any software designer you encounter is most probably familiar with the concept of agile development, are you? If you are developing business, can you agree with the idea? If you are not familiar, I strongly suggest you to read the agile manifesto, and consider if this would be the correct way of developing your business. No big bang, but simple, quick changes and additions. No risking your existing business, but creating new services and products in an agile manner.

Another change in IT that has happened since that young suit was interviewed in that 70's educational program is the substantial increase in available software components. The nature of programming is changing from building everything yourself, into integrating existing components. These components can come in the form of packaged software suites, external services exposed by your partners, or software components that you can integrate tightly in your own applications. To put it simply, today we are in a situation where it is hard to find a single problem that someone else has not yet solved. Instead of re-inventing the wheel, you can just get the wheels you like, and integrate them into your overall solution. After all, if you are going to buy a new car, but don't like your dream car's tires, do you end up building the whole car from scratch instead?

Sami encountered a sample of some innovative design when he was reading about Aalto-1 satellite, a student project of Finnish Aalto University. This nanosatellite, scheduled to launch into orbit later this year, has its own integration challenges. Without knowing too much detail, he love one specific part of its design.

In order for the satellite to communicate with the ground station, it of course needs antennas. These antennas have their own requirements – they need to fit into very small space before deployment. They need to expand reliably when in space, and they need to handle the huge vibration caused by the rocket launch.

Surely, Aalto University understands its memory metals, but Sami really admired the way they've found a well-proven, cheap and resilient technology that they are using in the antennas – see this video. (If you didn't quite grasp what those antennas are made of, we can hint that if you have ever done some renovation, and needed to measure something, you most probably have this technology in your toolbox). A beautiful example of integration proven technologies to a modern solution.

Bottom line. There are good technologies out there. In logistics IT – as in any business-critical IT – you no longer need to risk building everything from scratch. You can use the best technologies out there, integrate them as you need, and do all of this in agile manner. With this approach, you will experience fast results helping your customers (and increasing your revenues), minimizing the risk to your existing operations (no big bang), and maybe, most importantly, enhance and expand your operations quickly and in a controlled manner. All this can happen, and with controllable cost.

The Proven Solution For Gaining The Competitive Advantage

Traditional EDI processes, often slow and inflexible, are no longer adequate to meet your information exchange needs, or those of your customers and partners.

For logistics and transportation companies, the efficient exchange of data is key to providing great customer service, winning and onboarding new customers and minimizing unnecessary costs. Youredi provides an agile platform to execute logistics data exchange tasks in real time, in any format, any protocol across borders, lanes and modes. Youredi dedication is at the highest possible level developing new value added services constantly, such as analytics, activity based process monitoring and bots to mention a few.

Youredi's iPaaS is a web-based, real-time robust solution, designed to easily complement or replace any existing, more traditional platforms you may already run. It allows automated connections and simple configurations, and can be self-managed and controlled. With Youredi you can increase your speed to market by at least 3-5 X.

Choosing a platform that processes all logistics data in any format — and that supports all communication protocols — will place your organization on the leading edge of fully integrated transportation logistics.

You'll be able to establish new relationships and grow volumes with full track and trace, any back-end integration in-house or with trading partners, data enrichment, order and inventory management, and fulfillment services for all of your customers.

With a lean, cost-effective integration and analytics platform that can be delivered securely from the cloud, you'll realize maximum value across your transportation and logistics operation.

High value. Low cost.

Youredi provides a platform and team that act with the agility that your transportation logistics demand. Our platform offers both replicability and transparency. Because there is no need to invest in hardware, software, upgrades or scarce resources, and because our platform doesn't require you to replace your existing integration infrastructure, integration with Youredi presents minimal financial risk.

With Youredi, you'll also experience the added value of Analytics. You can create dashboards that provide real-time analytics, allowing you to make decisions that deliver maximum profitability, optimal efficiency and satisfied customers. With KPI management tools ready whenever you need them, you'll both realize enhanced operational efficiencies and minimize costly mistakes. You can also transport through the API all the data to your legacy BI tools in case it is the preferred front end tool for analytics.

Data integration platform as a service (iPaaS) now offers forwarders, carriers and agents a new way of exchanging data. One that is easy to use, quick and affordable with great ROI. Think about it. If you could process every document electronically to every partner in your network at just a few cents, the savings are significant.

Simply connect to the cloud in your format and protocol. The integration service provides the transformation, validation and enrichment of all data to the format and protocol required of that of your supply chain partner.

The platform allows easy message modification on the fly and the ability to provide other message types in other standards or formats. For example, UPU standards, X12/ EDIFACT. Or managing different processes, like Invoicing and billing; EDI810, CASS billing. Furthermore, it allows for integrations across other transportation modes. If you want to add flexibility and scale designed for the e-commerce world, then Youredi is the proven solution. Gartner has recognized Youredi already in 2014 as “Cool Vendor In Integration” globally, and 2015-2016 Youredi is recognized in the “Magic Quadrant for Enterprise Integration Platform as a Service, Worldwide” with special focus in Supply Chain data integration and analytics.

About Youredi

Youredi is a leading global provider of a cloud-based Integration Platform as a Service (iPaaS) solution with a focus on global supply chain management and logistics.

Youredi enables quick connections and message translations between supply chain partners and customers. Integrating with communities, carriers, shippers, consignees and the systems that they use, Youredi provides global scale, speed, and agility. This seamless real-time flow of 100% accurate data, provides organizations the ability to analyze and optimize all supply chain processes.

Youredi provides a range of solutions related to big data, IoT, and analytics.