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EBOOK

Are We There Yet? Realistic ETAs for Goods on the Move

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Introduction

Do you remember taking long road trips as a kid? A few hours into the drive, you started asking your parents a question you would ask again and again: **"Are we there yet?"** Either you or your siblings would repeat it throughout the journey with everyone else in the car growing more and more impatient.

A similar interaction occurs between shippers and their logistics service providers (LSPs) during long transport journeys. The shipper repeatedly asks, "Is my stuff there yet?" until the cargo finally arrives at the port. Today most people have access to a global positioning system (GPS) to see where they are and when they will arrive at their destination, and this helps them give their kids a reliable response. With international shipments that typically spans twenty days or more, GPS is only sufficient for giving shippers the current location of their goods. It doesn't help at all with "When will my stuff arrive?" Why is that?

Disruptions: Managing What You Can't See

Managing a supply chain is a delicate act that requires understanding and insight into a multitude of external and internal factors. Events surrounding geopolitical turmoil, climactic weather shifts, trade wars and global pandemics have shown us that we can't predict what challenges will disrupt even the best-laid plans. Even if you put extraordinary external events aside, effectively managing an end-to-end supply chain requires granular-level visibility into every functional area of your operation. Companies lacking such visibility are blind to potential disruptions, constantly reacting to problems after they've occurred using stale and untimely data.

Would you feel confident making a multi-million-dollar decision based on unreliable data? In addition to the financial implications, a disruption can negatively impact customer service levels, partner relationships and your brand's reputation.

Now more than ever, companies with complex multi-tier supply chains realize that they need cross-functional, cross-enterprise and cross-ecosystem visibility to identify potential supply chain disruptions and execute remedial actions. To reach this level of visibility, you need some critical capabilities:

- Real-time updates providing the location of cargo in transit
- In-depth insight into predicted arrival times for proactive remediation
- Connectivity to planning, supply and transportation execution solutions
- Collaboration tools for working with upstream and downstream partners

The Challenges of Managing In-Transit Moves

Transportation delays are one of the many potential disruptions supply chain managers face, and numerous factors play into them. After leaving the shipping dock, cargo connects across multiple transport modes and legs until it gets to its final destination. The estimated time of arrival (ETA) at each connection point in the journey will vary — and when each ETA is off schedule just a little, those small delays accumulate and result in a substantial amount of time. Usually shippers don't know there's a problem until after a shipment is late. This inevitably causes friction between shippers, their LSPs or freight forwarders, and their customers.

Thanks to the "Amazon Effect," the demand for fast, on-time delivery continues to increase, making it difficult for shippers to keep up. When you can't give your customers an accurate ETA or an alert that a shipment is delayed prior to the expected arrival date, you risk losing their business to a competitor who can.

Port-to-port delays, customs delays and lack of in-transit status updates are just a few of the challenges that can alter a shipment's intended timeline.

Common Disruptions in a Shipment's Journey from Manufacturer to Destination

Port-to-Port Delays

Ocean carriers transport 90% of the world's trade, making maritime transit essential to our global economy. The average cycle time of a trans-ocean shipment is twenty-one days, with six days of variability to account for events that might throw off the schedule. A **number of disruptions can play into these events:**

- Inclement weather conditions
- Navigational hazards that cause a vessel to change course
- Feeder vessel schedule failure
- Shortage of truck or rail cars to haul the cargo away
- Labor shortages or strikes
- Yard space shortages
- Port congestion

In addition to these obstacles, **carriers and LSPs face a number of challenges just getting vessels in and out of the ports.** The shipping industry may be growing year after year, but the actual ports are not. Many port authorities are working on upgrading archaic systems and limited infrastructures, but not all are willing to make the investment. Larger ports have to accommodate more than 200,000 twenty-foot equivalent units (TEUs) a month, and with antiquated systems or a lack of proper infrastructure, the ports can get congested rather quickly. As a result, a vessel might have to wait offshore for extended periods. Historical data helps us understand a port's speed of docking, but without current, accurate information from the port and the vessel, how can a shipper plan its next moves?

Even when ports are operating with modern technology to facilitate an organized feeder vessel schedule, they can't always support the demand.

For example, from September 2014 to February 2015, workers went on strike at 29 ports along the U.S. West Coast, costing the country's economy $2 billion a day and leaving carriers without a cost-effective way to unload their containers from the ships. This standoff caused port productivity to fall 73%, forcing some vessels to wait weeks to berth.

Delays like those are out of a shipper's control and can cause a vessel's schedule to vary from a couple of hours to several days — or even longer. **Every shipment is critical for filling increased demand, and a shipper cannot wait days or weeks to find out if its goods are stuck out on the ocean.**

For example, if shippers have prior knowledge that a labor dispute is ensuing in a specific port region, they can avoid delays caused by a potential strike by adjusting their schedules, changing course or moving existing inventory around to fill the demand until the shipment arrives.

When delays occur, making last-minute schedule changes to trucks or rail lines waiting to carry the cargo to its last leg has expensive implications for the shipper. Coordination with dock teams, warehouse staff and container logistics managers helps companies avoid higher wait-times charges, demurrage and detention fees, dock appointment changes, and customer penalties.

Customs Delays

Your shipment may have had smooth sailing during the entire voyage, but that means nothing to your customers if their goods are tied up in customs beyond their expected delivery date.

Entry documentation that shippers present at the time of shipment requires a closer look to determine the shipment's potential risk level, and this too can affect a shipment's timeline. To make matters more complicated, the terminology used in government regulations may not match the nomenclature on standard shipping documents — even when they refer to the same items.

After a shipment has arrived, **exporters must carefully adhere to complicated, ever-changing compliance regulations**. Depending on the nature of the shipment, these might involve numerous locations around the globe. However, most companies lack the specialized knowledge in-house to manage compliance processes and avoid the risk of violations.

Lack of In-Transit Status Updates

Disruptions do not come from the places you know well but from areas where you lack reliable data.

For shippers and LSPs that use traditional methods to obtain arrival estimates, **tracking in-transit shipments is the most challenging aspect of logistics** due to the lack of status updates. A vessel that runs into a nasty storm or encounters geopolitical unrest could veer off course, lose a few containers or even become a target for robbery. Shipments in transit easily slip into a visibility "black hole."

Shippers need to know where their loads are and when each one will arrive to coordinate handoffs between carriers and modes. Black holes make it nearly impossible for shippers to know what kinds of events are threatening their cargo's arrival time. Siloed decision-making and disconnected point systems compound the issue and continue to make shippers vulnerable to inefficiencies and disruptions.

How to Adapt to the Unexpected

Shipping conditions, transportation schedules and trade regulations are continually changing, making it imperative for shippers and carriers to monitor all legs, modes and regions where goods are moving. Organizations cannot manage what they cannot see. A modern supply chain is a system, and each component depends upon others. Managing the whole requires granular-level visibility into all parts, and without this visibility in real time, leaders are not able to identify potential supply chain disruptions or understand how they affect downstream operations.

Tools that provide real-time data shine a much-needed light into the black holes of shipping. To avoid missed hand-offs and a frantic scramble to make alternate plans, reassure dissatisfied customers and escape costly penalties and fees, companies must harvest big data from multiple systems and sources to identify points of friction. **Advanced technology is available that allows you to leverage machine-learning algorithms to process and utilize information from various areas:**

- Container events
- Ocean schedules
- Historical data
- Weather patterns
- Real-time automatic identification system (AIS) data
- Trade regulations

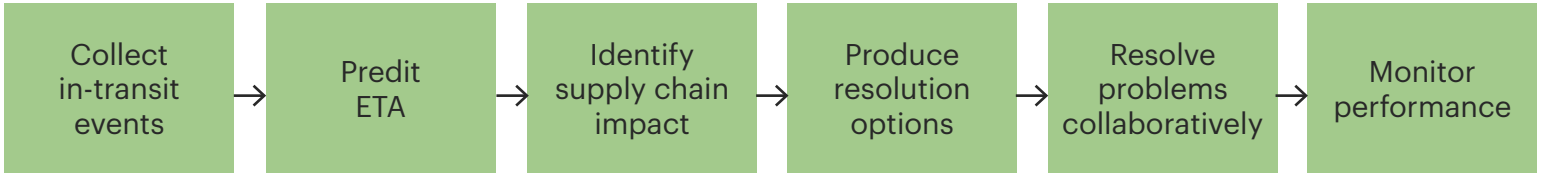
An automated system can use this information to generate dynamic, real-time arrival updates and predictive ETAs. By combining in-transit visibility with accurate arrival times, you can connect your logistics ecosystem with your extended supply chain and go beyond just knowing the status of shipments to evaluating decisions based on their overall inventory and revenue impact.

Positive Impact on Your End Customers

To compete in today's market, supply chain professionals must take ownership and promptly address deviations from their original plans. Otherwise, customers will quickly find a substitute. End customers and consumers are not concerned about the issues their shipments encounter on their journey from the supplier. The only thing customers and consumers care about is receiving the goods they paid for, and if they don't show up at the expected time, it's automatically the shipper's fault.

While robust in-transit visibility is essential, it can only highlight where your goods are at a given moment in time. When shipments deviate from the planned timeline, reliable predictability is the key to making intelligent decisions for remediation.

Streamlined Process for Identifying Disruptions, Evaluating Next Steps and Taking Action



Predictive ETAs build on your in-transit visibility capabilities to provide the granular-level arrival estimates essential for mitigating disruptions. Arming yourself with reliable information from proven machine learning algorithms and combining it with your planning and execution systems effectively changes the conversation with your LSPs from "Is my stuff there yet?" to "Does this delay actually impact production or will the next leg of the journey need to be expedited?" With this level of visibility and understanding, customer service levels improve exponentially.

Imagine that your parents were able to give you a GPS that incorporated accident delays, speed traps and bathroom breaks into its ETA. You'd have been able to avoid irritating your family and sit back, relax and enjoy the ride.

The world can be chaotic, but that does not mean your supply chain has to be.

About e2open

At e2open, we're creating a more connected, intelligent supply chain. It starts with sensing and responding to real-time demand, supply and delivery constraints. Bringing together data from customers, distribution channels, suppliers, contract manufacturers and logistics partners, our collaborative and agile supply chain platform enables companies to use data in real time, with artificial intelligence and machine learning to drive smarter decisions. All this complex information is delivered in a single view that encompasses your demand, supply and logistics ecosystems. E2open is changing everything. Visit www.e2open.com.

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