
Published 14 April 2021 - ID G00746192 - 7 min read

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Initiatives: Supply Chain Technology Strategy and Selection

Visibility to international transportation and the different legs of a shipment is a key priority for shippers and 3PLs and their customers. Supply chain technology leaders can use this research for an overview of the international/multimodal logistics visibility market, trends and vendors.

Get the full story
This content is part of a larger body of research on this topic.
Magic Quadrant for Real-Time Transportation Visibility Platforms

Market Differentiators

Many companies have a need to access visibility across some or all the legs of an international multimodal shipment to keep a pulse on inventory and container location, and to get prescriptive insights on the estimated time of arrival (ETA) and potential delays or disruptions. This need has driven innovation and improvements in an already existing market of international visibility.

While many real-time transportation visibility platforms (RTTVPs) have expanded capabilities beyond core domestic road transport and now include pieces of, or all, international visibility as well, this research is focused on internationally focused vendors that are not included in the Magic Quadrant for Real-Time Transportation Visibility Platforms.

As organizations are shipping products and inventory across the globe, there is an inherent need to get an understanding of the location, ETA, and condition and/or safety of that product or equipment. This segment of transportation visibility predominantly serves international transportation use cases (air, ocean) and international multimodal moves including rail and drayage.

International and multimodal transportation platforms offer visibility across the different legs of international shipments with emphasis on multimodal needs (air, rail, ocean, road). These solutions provide a technology platform with the features of a network, logistics applications and community. Some solutions focus only on specific legs or modes of transport in international transit, some provide full visibility through partnerships with other vendors, and some provide holistic visibility across the journey.
The solutions offer capabilities for supply chain visibility and advanced analytics, with data lakes containing data captured from multiple data sources — internal and external, structured and unstructured. Analytics and artificial intelligence capabilities are used to deliver predictive visibility and further prescriptive automation/resolution. Shipment insights can be offered as part of a transportation management system (TMS) offering or as a stand-alone solution.

The role of international visibility technology is more critical now than ever before, as organizations facing unprecedented challenges need to know where their in-transit goods are and when those goods will be available.

Components of International Transportation Visibility

International/multimodal visibility platforms bring multiple components together within one platform to offer visibility to shippers across all legs of their shipments in transit. These platforms pull together location information from carriers with historical performance information and external data to provide shippers location information in near real time. They also offer predictive ETA calculations for each leg and often, ultimately, for the end destination of a shipment. To predict disruption and calculate more accurate ETAs, these platforms also pull in external data along with carrier or location data. The most common data sources used by these vendors originate from:

- Ocean vessel automatic identification system (AIS) satellites
- Vessel tracking providers
- Air cargo carriers
- Freight forwarders
- Schedule providers
- Ports and terminals
- Rail ramps
- TMS and ERP solutions

Trends in the Market

Gartner has identified a number of new trends in this market that affect existing platforms, as well as companies not traditionally categorized in this market that are offering some of these capabilities.

Recent trends in the international/multimodal visibility market:

- Existing platforms offering extended capabilities that go beyond visibility, such as schedule alerts, booking capabilities or even market intelligence.
Considerations for Technology and Service Selection

Key Differentiators for International Visibility

The key components and differentiators of international/multimodal logistics platforms are:

- The extent of their international carrier network and ability to connect the multiple different modes
- The advanced analytics they are able to provide
- The predictive ETAs
- The accuracy of those ETAs along with their exception management capability

The variety of source data collected in these platforms provides shippers with access to available shipment schedules and carrier notifications in near real time should an unpredicted event happen. This data availability, together with the application of ML and AI, predicts the ETA of the shipment and determines when the cargo will be available — ultimately enabling organizations to make informed decisions based on reliable data.

Another advantage of these solutions is that they allow organizations to not only estimate realistic ETAs, but also plan ahead before moving inventory from one location to another. As the system estimates available capacity for certain lines, organizations can make better decisions to send cargo to nearby, alternative ports to avoid potential port congestion and further delays.

Notable Vendors
Vendors included in this Magic Quadrant Perspective have customers that are successfully using their products and services. Selections are based on analyst opinion and references that validate IT provider claims; however, this is not an exhaustive list or analysis of vendors in this market. Use this perspective as a resource for evaluations, but explore the market further to gauge the ability of each vendor to address your unique business problems and technical concerns. Consider this research as part of your due diligence and in conjunction with discussions with Gartner analysts and other resources.

**ClearMetal**

ClearMetal started as an advanced analytics platform with a strong focus on data accuracy and quality. It primarily focuses on the consolidation, cleansing and processing of data from multiple sources to corroborate that the data received from an ocean freight transportation is accurate and valid, or to fill existing gaps in the process. By offering granular container milestone visibility, the platform can transform that information into predictive insights on ETAs and statuses. It allows users to manage by exception, notifying the end users when deviations to the plan occur such as rolled containers, blank sailings or delays in transit. The platform not only gives customers access to in-transit visibility but also does pre-transit planning.

**E2open**

E2open is a supply chain management (SCM) provider, offering a broad solution set leveraging capabilities from the acquisition of companies like INTTRA and Amber Road. E2open's In-Transit Visibility product combines INTTRA's large ocean carrier/provider network and visibility with Amber Road's visibility capabilities and extends further through a partnership with Shippeo. This solution offers real-time insights, proactively monitoring shipments in all modes, while providing predictive ETAs and alerts to customers. The visibility product enables visibility into 40% of all global trade. With the broader platform offering, customers are able to connect visibility into planning to determine impacts of disruption on demand, inventory and service.

**Infor**

Infor Nexus is an SCM software provider that started as an ocean booking portal but expanded into a much broader platform. Infor Nexus’ global trade capabilities include contract sourcing, multileg and multimode planning and execution, shipment optimization, freight audit and payment, and shipment visibility. Infor Nexus is connected to an extensive ocean carrier network and has a strong history of connecting shippers to carriers, including air and truck, which enables the visibility within the solution. Over the past few years, Infor Nexus has added real-time tracking of ocean, air and truck shipments, as well as connectivity to cargo sensors. Through partnership with a wide range of data sources, such as project44, Infor Nexus can pull together its international carrier networks with the strength of project44’s vast road carrier network. This allows Infor Nexus to provide customers a more holistic multimodal view into their shipments.

**TransVoyant**
TransVoyant analyzes big data streams with proprietary ML algorithms and establishes learned behavior models for carriers, lanes, ports, roads, suppliers and other nodes in the global supply chain. This, coupled with continuous analysis of real-time and predicted global events, enables it to predict lead times, variability, disruptions and opportunities to initiate prescriptive actions. It defines end to end not only as between-node in-transit movement but also in-node activities and behaviors within warehouses, manufacturing facilities, cross-docks, ports and borders, among others. Additionally, it uses condition data from IoT devices and has API connectivity with leading IoT device vendors. TransVoyant fuses and harmonizes data from all sources to provide granular visibility (part, item, material number, customer, order and SKU) from the first move to the last-mile delivery, regardless of mode.