SIEMENS

Supply Chain Visibility

Greater Transparency and Flexibility through the Digitization of Logistics



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With advancements in technology, companies in today's supply chain have come to expect easier access to information and faster communication. But rising competition and globalization have made attaining clear visibility difficult for companies in today's supply chain.

Strengthening the supply chain by making accurate, up-to-date information readily available to all stakeholders, including the customer, is the ultimate goal of supply chain visibility.

Supply chain visibility is all about knowing where inventory is at any particular time and how well products in transit can be traced from the manufacturer to their final destination. Its significance can be appreciated when it is removed from the equation. Imagine a supply chain without a network of shared information. We would be blind. The further we can see into the supply chain, the greater our ability to make the right decision.

But how is it possible to achieve a comprehensive overview of your supply chain? How do you bring all the necessary players - the customers, suppliers, carriers, warehouses, hubs, and service providers, along with the language barriers, various transportation modes, and various IT systems that come with them – together to create a cohesive environment?

Below, we outline the preconditions for supply chain visibility, highlight successful case studies, and discuss the role that cloud technology will play in the future of supply chain visibility.

What You Need to Benefit from Supply Chain Visibility

Integrating your process participants and IT systems

To gain deeper insight into the supply chain, manufacturers must first overcome several technological and process hurdles. By using a centralized, cloud-based platform, companies can ensure simple collaboration through flexible integration of all supply chain participants. Not only does this solve collaboration issues between shippers and carriers, but it also provides the necessary transparency for profitable, end-to-end supply chain visibility.

Having key players in the supply chain working together through a centralized platform also results in greater flexibility in how data is accessed. Data is no longer accessible to the immediate upstream or downstream partner, but rather to anyone who needs it. When everyone works together to build and use supply chain data, the quality of that data improves. The collective knowledge from all parties ensures that the data is constantly updated with new and validated input and in the end, we have created a high-quality pool of data that can be augmented with external systems and even production.

Understanding and designing processes along the supply chain

To maximize transparency, processes need to be transferred to IT-supported workflows. Organizations must understand the logistical processes of both upstream and downstream partners to establish uniformity through the standardization of these processes.

It's important in this context to have well-defined role concepts that are backed by rights and responsibilities. This ensures that all parties have access to the data they should have access to, rather than to information they do not need to see.

By defining rules and automated process monitoring of these rules, we shift the supply chain from a reactive state to a proactive one. The result: a more reliable supply chain.

The Link Between Supply Chain Visibility and Collaboration

You can't have collaboration without supply chain visibility, but visibility also depends on collaboration. The interdependency of these two elements of successful supply chain management is obvious: Efficient collaboration in turn yields better results and information, triggering a positive feedback loop.

By adding data to a centralized platform at the outset, you make it possible for downstream players to take the appropriate precautions or augment this data with their input. This, in turn, enables more efficient personnel and resource planning at loading docks or cross-docking facilities, for example. As the process unfolds, the data is continually augmented and validated by the system and its user community. Bit by bit, this generates a reliable pool of data that offers maximum supply chain visibility.



Case Studies



Case Study: Shipment Tracking

Overview: A European logistics service provider that manages several million shipments annually across multiple locations uses an IT platform to collect all customer orders in one place.

The challenge: The logistics service provider required an SCM solution for seamless, end-to-end monitoring of rail transports involving various rail carriers.

The solution: The solution was based on three pillars: the mapping of the structure of trains, rail cars, and containers; the definition of scheduling targets for the company's train network; and the import of tracking data from partners. After all parties and processes were defined in an end-to-end workflow, the existing data made it possible to automatically compile reports and generate proactive alerts when any deviations from the normal workflow occurred.

The result: The logistics company began establishing end-to-end visibility for rail transports using AX4. Today, the platform handles some 95,000 trains, rail cars, and containers each year. This involves processing data from 16 different rail carriers and various transfer stations and transport companies.



Case Study: Transport Capacity Optimization

Overview: A European shoe company uses a centralized, cloud-based logistics solution to procure goods from Asia.

The challenge: To accompany its internal expansion, the retailer needed an SCM solution that simplified communications and linked all service provider partners to the company in a single network. The solution needed to enable the exchange of order data with suppliers, make shipment and tracking data available, and enable company growth without incurring additional logistics costs.

The solution: Siemens Logistics implemented the logistics platform AX4 to enable fast communication between different parties. The retailer transmitted its order data from SAP to AX4, where it was then forwarded to the suppliers who confirmed the orders and generated delivery notes.

Logistics service providers were integrated into the data flow early on. This allowed the retailer to better plan its pickups and to leverage container consolidation effects.

The result: The retailer was able to increase the fill level of its containers by more than 15 percent and almost eliminate less-than-container loads.

Hundreds of thousands of purchase order items are handled each year by this retailer. The platform now delivers unprecedented visibility and streamlines communications. The shoe company can now supply its retail stores more quickly, break down costs to the article level, and reduce the costs of transports from Asia, where over half of the company's shoes are manufactured.



Case Study: Reporting and KPIs

Overview: LEONI deploys a centralized platform to manage the worldwide distribution of its products. The system enables cross-enterprise collaboration that includes its production sites.

The challenge: An IT solution was needed to easily integrate all participating suppliers and logistics service providers across all systems and language barriers.

The solution: Siemens Logistics implemented the logistics platform AX4, which enabled easy integration of suppliers and forwarders into the LEONI Wiring System's supply processes. This enabled worldwide sharing of all order and shipping data used to supply plants, storage sites, and distribution centers.

The result: Using AX4, LEONI was able to cover all steps in the process, from the initial shipping request to the final delivery. AX4 not only helped LEONI meet the strict logistics requirements of the automotive industry, but it also helped it achieve the sustainability goals of its industry partners. Today, the IT platform yields end-to-end visibility of every movement of goods, which makes it possible to identify and seize consolidation opportunities early on and eliminate special transports.



Logistics 4.0, the Internet of Things, and Supply Chain Visibility of Tomorrow

The volume of data generated, even over the last year, has a tremendous impact on supply chain and logistics. Through the digitization of logistics, or Logistics 4.0, we are creating a world that will bring together even more data from various sources such as vehicles or production facilities. All of this data will be transmitted into the core software system and crunched for logistics. The issue, however, is that most of this data is unstructured and difficult to leverage.

The only way to tap into this value is to merge the various data sources into a centralized IT platform so that once insights are realized, the community has real-time access and that value now becomes actionable.



Siemens Logistics, headquartered in Constance, Germany, is a leading provider of innovative and high-performance products and solutions for mail and parcel automation; for airport logistics including baggage and cargo handling; and for the digitization of logistics processes using high-end software. Comprehensive customer service completes the portfolio. Siemens Logistics has its own U.S. national LLC company headquartered in Dallas, Texas. With this local presence, Siemens Logistics LLC can ensure optimum customer service and competent local handling of projects. The U.S. team is part of Siemens Logistics' worldwide network of regional companies and offices.

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