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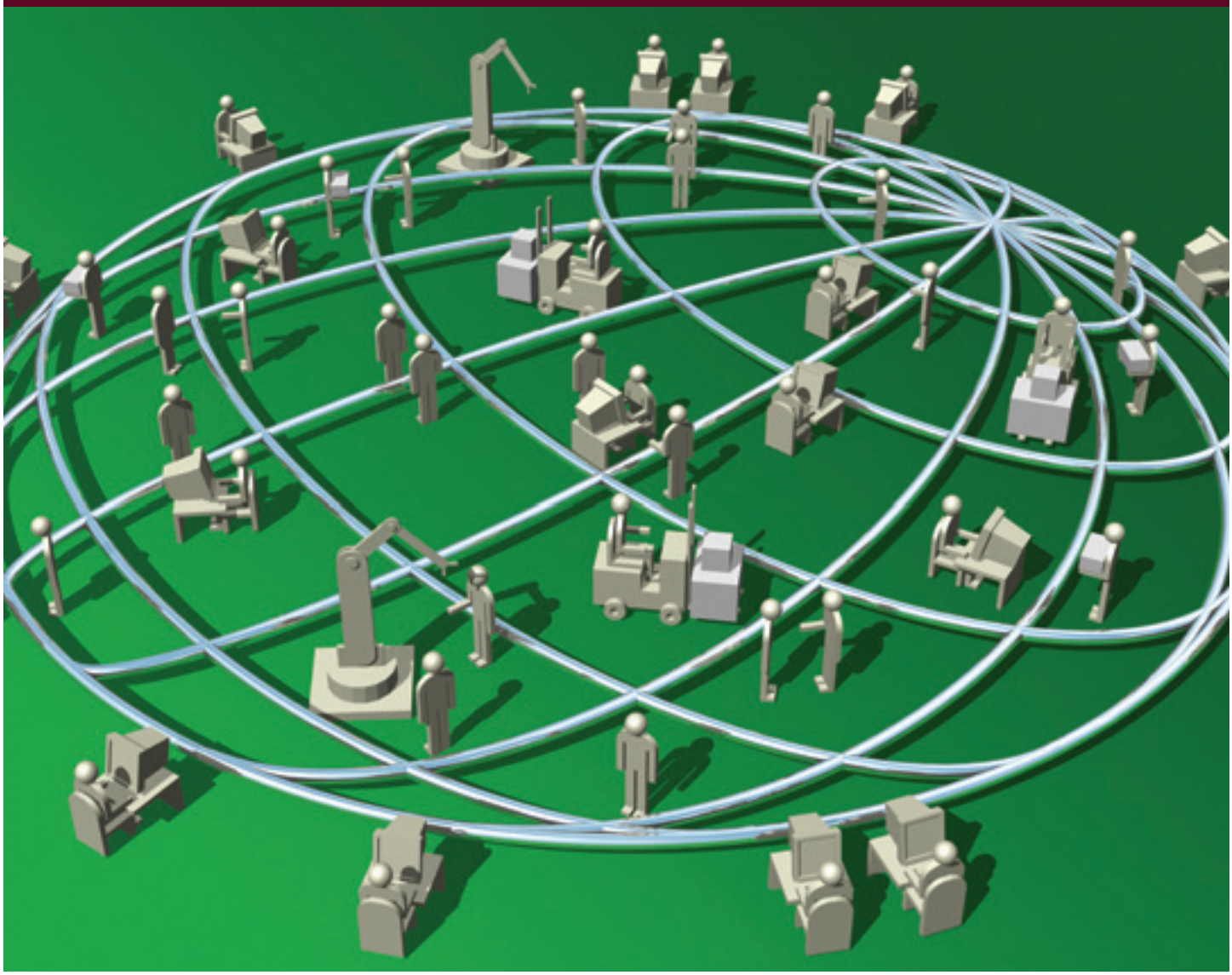
The Global Supply Chain Goes Collaborative



The Global Supply Chain Goes Collaborative

By Sebastian Ennulat

In today's era of high customer expectations, businesses naturally aspire to the highest levels of service, from order confirmation to guaranteed delivery dates. At the same time, it's imperative that they develop the ability to secure business continuity—to anticipate and mitigate possible supply chain disruptions, both local and global, that can range from political to environmental to economic and can seriously disrupt operations without warning.

Yes, most companies have invested in sophisticated enterprise resource planning (ERP) systems within the confines of their own organization; and many have gone further, expanding to include point-to-point connections with external partners. But if businesses are to succeed in both quality customer service and business continuity, they must take a new approach to supply chain management—specifically, the ability to orchestrate suppliers, assemblers, and distributors to a level of accuracy unheard of just a few years ago. Achieving that requires a shift to a singular view of goods and services among all entities that touch the supply chain.

From Insularity to Integration

Only a few years ago, companies were busily drawing up policies around how to close off and protect their supply chains. Now, to beat the competition it's all about collaboration. Indeed, in a recent supply chain trend analysis, Gartner took it a step further, focusing on the concept of "co-opetition"—the idea that partnering with potential competitors can be a transformational differentiator.

Yet, many companies are still using specific and limited point-to-point connections. Certainly that insular approach had value in its day. You could protect the integrity of your company's system while selectively sharing information with your supply partners as needed. But taking this approach today makes little sense. Each dedicated connection point requires its own contractual framework, information exchange protocol, systems, and data security arrangements—essentially a new wheel must be reinvented every time another connection needs to be made. It's a high maintenance model with limited flexibility, especially in the current business environment.

At the highest level of collaborative maturity we see organizations taking full advantage of today's communications and analytics technologies by fully integrating suppliers and customers into

the core supply chain through a common architecture, such as a portal via Cloud technologies or rolling out a standard interface to suppliers and customers.

This full integration and collaboration allows all parties to enjoy seamless end-to-end visibility of relevant supply chain processes and movements, and facilitates the collection of data that can be used for after-event reporting and management, forward-looking predictive analytics, and, of course, smarter supply chain decision-making.

It appears to be an obvious solution, so why aren't more businesses adopting it? Although the technologies are there, most organizations have to radically re-think their policies and business processes. But, consider how a collaborative approach could enhance your success if your plan is to expand your business into new markets, whether geographical or product-related. In either case, expansion requires significant upfront investments and a strong network of local support which could take years to establish. Now imagine you could "set up shop" through integration and collaboration with suppliers and customers, and have the ability to instantly add or remove capabilities based on an agreed global standard. The potential pitfalls of expansion begin to diminish.

Preparing for an Integrated, Collaborative Supply Chain

One of your initial steps in laying the foundation for a more integrated, collaborative supply chain should be engaging with suppliers and customers to make sure everyone is ready and eager to participate.

With buy-in from all parties, begin to modularize each component of the supply chain. A good starting point would be something as basic as agreed-upon definitions. "Open purchase order" can mean different things to different suppliers, for example. Same with "late delivery," "damaged goods," or "stock replenishment." Speaking the same language as your partners is a first step toward standardizing and integrating.

Building on this, you'll want to consider rules that lay the foundation of the overall orchestration. So, for example, a rule could determine that if stock is not available at one supplier there's a hierarchy that would automatically route the request to the next available supplier—even if it's more costly—and charge the difference back to the first supplier.

On the customer side, start by thinking about your readiness for modern e-commerce best practices. Is your organization ready to commit to a delivery date, regardless of product, geographical distance, component requirements, and order size? If not, what would it take to move you toward this vision? Where does your value chain have its weakest links and what can be done to strengthen them?

Putting Technology to Work in Transforming Your Supply Chain

One of the goals in establishing this new collaborative, integrated supply chain is efficiency in the face of hyper agility and uncertainty. We're living in a volatile business environment. Assuming you are aggressively addressing the management side of supply chain, there are three disruptive technologies that can assist you in establishing an efficient, seamless collaborative supply chain.

The first is Cloud computing. Over the past five years, Cloud has matured significantly, and increasing numbers of businesses are taking advantage of the "utility" aspects of using and paying for IT infrastructure services as and when required—without traditional upfront investments and multi-year deployment timeframes. So, the user would pay the Cloud solution service provider by transaction or by connection. With Cloud middleware, collaborating with other parties becomes truly plug and play.

Advanced analytics—or "big data analytics"—used to interpret large swathes of structured and unstructured data is accelerating to the point where rule-based decision-making is replacing what was previously a long-term process of data extraction, compiling reports, and implementing decisions. Affordable "in-memory" computing and faster network connections make it possible to interpret and respond to events with tremendous speed and efficiency.

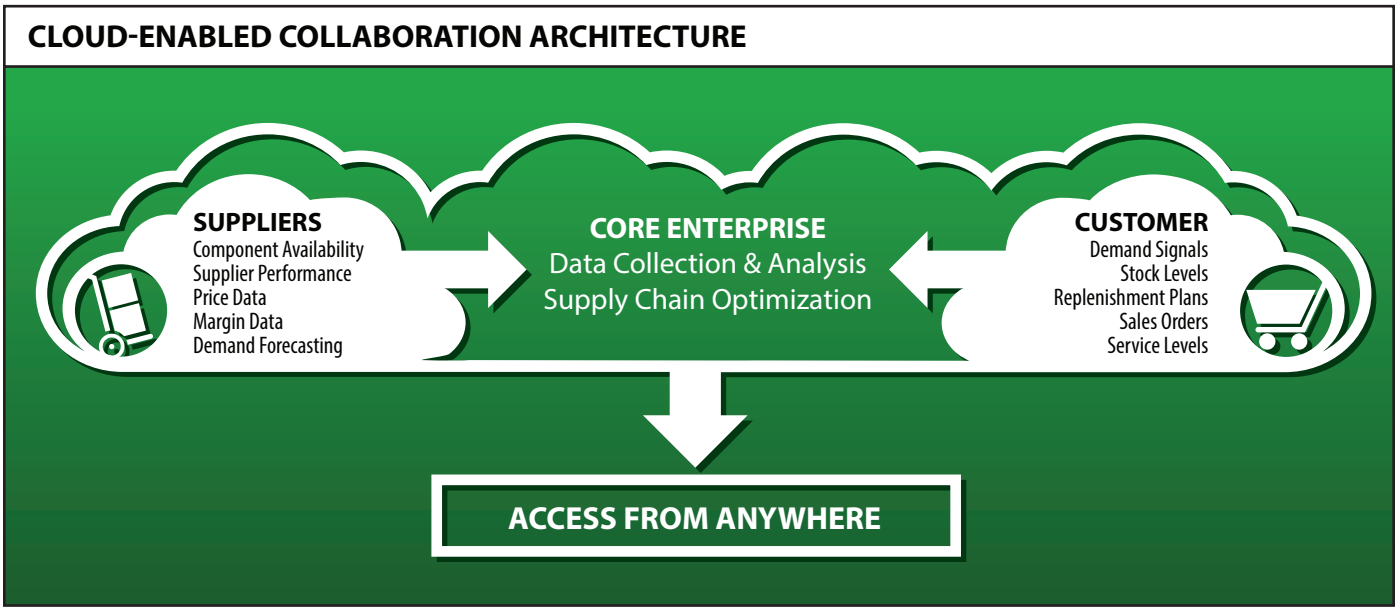
Finally, we have mobility. Information and analytics can now be accessed anywhere at any time—by a sales rep in the field, for example—enabling quick decision-making with better information. So, if you are traveling and receive information on your tablet about a significant increase in demand and you don't know where to supply it from, you can run a scenario across your network to determine where to source it, and then write that scenario back into your supply network planning and production systems.

As an example, consider the Cloud-enabled supply chain architecture shown below:

Suppose one of the customers is experiencing volume reductions due to the economic situation in a particular market. As the demand signals reduce and customer stock increases, the core enterprise is able to react instantly by reducing production, re-assigning manufacturing capacity to alternative products, or alerting its suppliers of the expected demand reduction. Similarly when demand picks up again, the customer side pull will be immediately visible through customer stock reductions and increased order frequency.

While the majority of the day-to-day decisions would be hard-coded within the rules of the system, human interaction is also important if, for example, certain thresholds are exceeded. In the event of an unexpected factory shut-down or major environmental event, a user alert would be created through, say, a mobile device to which key people involved in the supply chain can respond.

The business benefits of this model span the entire supply chain. As demand is constantly anticipated and fulfillment is monitored, inventory levels are reduced, from components and



raw materials through finished unsold products and into sold products in customer warehouses. Service levels are increased, and resilience is strengthened without the need to create excessive buffering of products. Supply chain operating costs are reduced, and assets are better utilized as a result of the increased speed of decision-making and capacity prioritization.

Collaboration-Enabled Orchestration

Technology has made our world an incredibly interconnected "system of systems" and enabled a new age of multi-modal boundless collaboration that opens up almost endless possibilities across the entire supply chain.

In the future, we will see more and more supply chains operating with a minimum of human direction. Similar to information networks such as the Internet, they'll be able to automatically reconfigure themselves. Forward-looking enterprises that take advantage of this will dominate tomorrow's market place.

In order to differentiate and reach previously impossible levels of efficiency and speed, supply chain strategists need to radically re-think their businesses and decide which markets, operating models, and value creation approaches they want to embrace in order to stay competitive.

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