Debunking the Myths of Electronic Supply-chain Integration

BY JAMES K. DAVIDSON

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Concern over end-to-end supply-chain integration and control over inventory levels is certainly not new. Shippers have always worried about the degree of in-transit visibility of goods and the ability to assure that their shipments are delivered on time and damage-free. In recent years, however, we have lived in a B2B world, one that offers rapidly advancing electronic technologies with a virtual smorgasbord of electronic services and software providers — and no set compliance standards to guide us.

In addition, many online transportation marketplaces, which often provide these wide-ranging services, fail to present a clear understanding of what value-added functions they are capable of integrating into customers' existing systems. The result frequently is information overload and confusion over integration options at a time when technology offers greater opportunities for supply-chain management solutions than ever before.

Combine these facts with the reality of capital cutbacks in technology spending, general skepticism concerning new B2B technologies and widely varying degrees and levels of readiness to automate supply chains, and it's no wonder that most logistics managers still view web-enabled integration as a black hole to be avoided. There simply isn't a high comfort level when it comes to supply-chain automation.

Twenty years after the acceptance of electronic data interchange (EDI), 72 percent of our shippers and 38 percent of our carriers have EDI capabilities. In the newer world of PC-based XML (extensible markup language), 8 percent of our shippers and four percent of our carriers are prepared for electronic integration of in-transit inventory. Clearly, the learning curve for new integration technologies is a long one. Much of this lack of acceptance can be attributed to mistrust and myths about technology.

Supply-chain integration is undeniably tough. It comes with a great deal of misunderstanding and virtually no set rules due to differing transportation modes and standards. But it is doable; and ultimately it will provide the means for shippers and carriers to achieve vastly improved multimodal, in-transit visibility and coordinated distribution of goods throughout the supply chain. The challenge is for online exchanges that have full-service logistics solutions in place to help debunk the myths of integration. The important thing to remember about electronic integration is that it can consist of any combination of electronic systems. This makes flexibility to work within the parameters of a variety of new and existing software programs and varying levels of electronic sophistication a must.

One of the myths about supply-chain integration that has traditionally hindered the ability to integrate systems is the fear that sharing important transit information between trading partners will cause security problems. This concern was exacerbated when the electronic transmission of data threatened to take the hand-held paper and telephone out of the logistics process. But building a functioning, integrated logistics network must be a collaborative effort between trading partners who share critical goals and shipment data on a regular basis. The key is to establish customer-specific, umbrella-like infrastructures that enable new technologies to be integrated into any existing system in order to reduce customer costs, improve distribution services and help eliminate risks by making better logistics management decisions.

Another myth is that by establishing integrated supply chains, customers will incur enormous amounts of capital expenditures, take months to

accomplish, and utilize large in-house IT staffs. The fact is customers do not have to reinvest capital and human resources all over again. Capable online marketplaces, working closely with their partners, already possess the technological ability to provide umbrella logistics network solutions that encompass existing back-end legacy electronic systems by enhancing them, not replacing them.

In recent months there has been an increasing acceptance of electronic integration among trading partners as forward-looking companies become more comfortable with technology. With the fallout of many of the transportation exchanges, some of the survivors have moved beyond singular web-based empty promises to provide a full range of internet-enabled services to meet specific customer demands within the framework of their existing electronic systems. These enhancements are providing true value-added transportation management solutions to existing distribution systems without adding cost to the process.

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Supply-chain integration in 2001 is largely an educational process. Today, online marketplaces are listening more closely to their customer needs, understanding their concerns and comfort levels of electronic readiness, and accommodating them in a customer-specific manner. At the same time, shippers and carriers are beginning to do their homework to better understand what integration can do for their enterprise by working with full service IT-enabled logistics partners. They are trying harder to find out what electronic integration is, how it works, and what benefits it can provide. For instance, increasingly, customers are discovering that the newer XML is a fast and reliable means of transmitting a broad range of critical data between partners via the internet, including all forms of software and documents commonly used in all segments of the e-commerce economy.

This means that through internet transportation exchanges, supply-chain partners can track and trace shipments, place and accept orders, file destination routes and times, execute legal transactions, provide running status reports on freight and arrange for all administrative functions, including billing and payment — all on a real-time basis. These are the advantages of electronic integration today.

However, just as no enterprise has identical transportation requirements, there is no one form of integration that fits all. There are different levels and different phases of automation that must be understood before entering into an integrated logistics process. As noted, some companies have yet to embrace EDI, while few have taken the plunge into XML. This is where shippers, carriers and their exchange market partners must collaborate to begin the evaluation process. Working together, supply-chain partners should consider customer supply-chain needs, review logistics processes and the readiness to implement electronic integration, and assess the levels of awareness and understanding they have of the choices and solutions possible to them right up front.

Once these things have been determined, parties should analyze the degree of trust and comfort they have working together, especially when sharing critical shipment information. Understanding these factors will help decrease fear of the internet and provide an awareness of the benefits logistics online exchanges can offer. Understanding the process of electronic integration goes a long way toward breaking down technology barriers.

Nevertheless, there is no need to jump into it all at once. It is recommended that customers try it out one step at a time — start small and build up to total integration once a comfort level is established. It is important that companies focus on productivity first, and look to return on investment as the next step. Eventually, through trial, error and success, electronic integration will become an accepted day-to-day enabler of improved business processes. The bottom line financial rewards will follow.

Once accomplished, automated supply-chain integration offers several key advantages. For shippers, who generally have the most invested, it provides them with the ability to improve productivity while cutting costs and improving service. With real-time visibility, instead of contacting 10 to 20 carriers conventionally, via phone and fax, they can access the internet once and reach the same number of vendors to move their goods. For them, electronic integration represents time and money — with savings from a single source.

Carriers benefit from automated integration by interfacing once with a web-based electronic trading community and quickly tender loads on a real-time basis. In both cases, there are fewer touches of goods, fewer errors and fewer risks, with all administrative functions provided by the marketplace.

Concern over end-to-end supply-chain integration will always be an issue, and rightly so. The difference today is that with advancing technologies and new alliances between trading partners, the reality of virtually continuous flow distribution, with a high degree of in-transit visibility is closer than ever. Automating supply chain integration is tough. But with understanding, flexibility and collaboration on the part of trading partners, the benefits offered by today's advancing information technology make it a practical choice for improving the logistics process.

Old traditions die hard. But with the acceptance that changing technologies are here to stay, and a higher degree of comfort level for logistics managers, the IT comfort level will develop. The winners of successful supply-chain integration will be shippers, carriers and, ultimately, their customers.