

LOWER COSTS BOOST LOGISTICS SOFTWARE HIGHER VALUE

Fast and sure, return on investment continues to make logistics software one of the strongest contenders for sparse corporate technology investment budgets.

By Thomas A. Foster,
Contributing Editor

The economic slump has not been kind to the business software market. For the past year, manufacturers, retailers and wholesalers in every industry have slashed capital investment and technology expenditures to protect their bottom lines. According to Aberdeen Group, a technology analysis firm located in Boston, total expenditures for all types of enterprise software fell by 13 percent in 2002, which is the first total-market drop in many years.

Logistics and supply chain applications, however, have been one bright spot in this otherwise dismal business software marketplace. According to another leading technology analysis firm, ARC Advisory Group, logistics management software sales rose approximately 5.5 percent last year. Dedham, Mass. based ARC Advisory Group also predicts that expenditures for these applications will grow annually at an average rate of 12.1 percent through 2006.

"The current economic climate has most companies looking at defensive ways to lower operating costs and reduce working capital invested in inventory and fixed assets," says Marc Wulfraat, managing partner at Kom International, a supply chain consulting firm based in Montreal. "In this environment, logistics and supply chain technology solutions that help to accomplish these objectives will be in strong demand looking forward."

Logistics applications have already proven that they produce costs savings and rapid payback. According to John Hill, a partner in Toledo Ohio based supply chain consulting firm ESYNC, two thirds of the companies that his firm works with have seen their logistics costs go down in the last year, primarily because they are getting a better hold on their inventories and operating costs. By leveraging technology and improving business processes, these companies have lowered total logistics costs to about 8.5 to 10 cents for each sales dollar. However, during this same time period, the remaining one third of companies have seen their logistics costs rise significantly.

"These companies are failing because they do not effectively use technology, and they are not focusing on the business process

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- Adrian Gonzalez, ARC Advisory Group

improvement that technology can bring," says Hill, who will be expanding on this message in his keynote address at D/C Expo in Chicago, May 20-22, 2003.

Fast ROI

The hands-down fastest ROI according to Hill, is the newest generation of hosted transportation management software (TMS) systems. These systems have just about all of the consolidation, optimization, planning and execution capabilities found in the wellknown enterprise-based system, but they are much faster and easier to implement, and usually are much more affordable.

"Any good TMS system will dramatically reduce freight costs and direct labor within your organization," he says. "What makes these hosted solutions so compelling is a pricing model that is subscriptionbased with a very low up-front licensing fee. The savings produced by the TMS application should actually cover the monthly subscription fee, so it's an attractive proposition."

Hill points out that the hosted model works well in logistics, which is an inherently collaborative process where carriers, vendors and customers all must share information. Logistics is also a discipline where outsourcing is well established, so there is less resistance to the concept of having an outside party host and maintain the application and the data.

These hosted systems are deployed over the Internet, which makes them widely accessible to any authorized party with a Web browser. Purchasing agents, warehouse supervisors, merchandise buyers or other managers who need access to the transportation information can interface with the systems.

"Transportation planning and execution is moving to the Web," says KOM International's Wulfraat, who will also be speaking at D/C Expo. "Having these applications on the Web allows on-line bid placement and auctions, shipment status tracking and product tracing information, which improves transportation accuracy, turnaround time and service levels."

According to Adrian Gonzalez, senior analyst for ARC Advisory Group's supply chain and logistics practice, these hosted TMS systems are not just more affordable and more accessible solutions, but they have broader scope and greater functionality than many of the older enterprise-based systems. Many of the hosted TMS systems can manage multiple modes of transportation, and while all can handle domestic moves, an increasing number support global transportation, as well as compliance with customs, security and other international trade regulations.

"More and more companies are sourcing from overseas, manufacturing offshore and distributing

worldwide, so TMS and other logistics systems that support these global tasks are becoming important," says Gonzalez. "Today's state-of-the-art systems are helping to raise logistics from being a backend process to being a strategic player in a company's global activities."

Visibility and metrics

Supply chain event management (SCEM) is another solution that has become popular in the last few years to support companies'

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increased need for visibility of their inventory and shipments in real time. First generation SCEM captured shipment track-and-trace information from carriers, and mapped it against pre-established milestones to alert users to any out-of-range shipment exceptions.

"These visibility capabilities are now built in to the new TMS applications, so there is less need to buy separate SCEM solutions," says Gonzalez. "Many warehouse management systems [WMS] also have event management built in. Orders and inventory are more visible throughout the supply chain."

The next step in SCEM, according to Gonzalez, is to marry these visibility capabilities with supply chain analytical tools. This combined capability allows monitoring supply chain operations against key performance indicators and a host of financial measurements. For example, by monitoring picking, packing and other warehouse activity, management will be able to measure labor productivity as well as its impact on total operating costs and profit margins.

According to ESYNC's Hill, WMS solutions are second only to TMS in

terms of ROI for those companies that do not have state-of-the-art systems-or any warehouse system at all.

"Remarkably, about half of the 60,000 or so major warehouses in this country do not have any formal WMS system," he says. "These companies have work-around systems they've developed to fill orders. These companies can take a giant leap forward in productivity and efficiency by investing in a quality WMS application that will pay for itself in less than 18 months."

Kom International's Wulfraat says that today's state-of-the-art WMS solutions should appeal to even the most efficient companies because these applications now have more scope and functions

"WMS is expanding beyond the traditional four-wall warehouse boundaries with additional core competencies," he says.

The long list of new functionality that Wulfraat sees in many new WMS solutions includes: warehouse labor standards; voice recognition technology for hands-free operations; slotting programs to optimize picking; yard management systems; value added services integration; and Web-based visibility applications.

"This visibility enables supplier and customer information sharing that is particularly important to third-party logistics providers," he says.

WMS systems are increasingly including modules and support for distributed order management, according to ARC's Gonzalez. Customers want to send one purchase order to their vendor and receive one invoice, but vendors increasingly have to fulfill these orders from multiple locations, and perhaps from different divisions or directly from their suppliers. Traditional ordering systems can't handle this distributed fulfillment requirement, nor can older WMS systems support this capability.

"We are seeing more integration and collaboration between WMS and order systems to tie these distributed fulfillment processes together," he says.

RFID emerges

Another emerging technology impacting WMS and TMS is radio

frequency identification (RFID), which uses tags affixed to packages, pallets, containers and vehicles to transmit accurate, real-time information to supply chain applications such as WMS and TMS.

“RFID tags are gradually dropping in price to the point where this technology will be pervasive, particularly for the tracking of high-value assets and merchandise,” says Kom International’s Wulfraat. The cost of the RFID tag has been one of the limiting factors in wider adoption of this technology. Many companies have been waiting for the much heralded “five-cent tag” that would allow its use on even single packages. According to ESYNC’s Hill, the RFID industry is still a long way from this low cost tag, but that’s no reason to delay adopting the technology.

“Even with RFID tags costing \$1 to \$5, there are still many important applications,” says Hill. “Putting these tags on pallets, containers and trailers greatly enhances the quality of information in logistics systems, so companies can improve their ability to execute. This improvement may appear small, but linking many small wins is how logistics constantly drives down operating costs.”

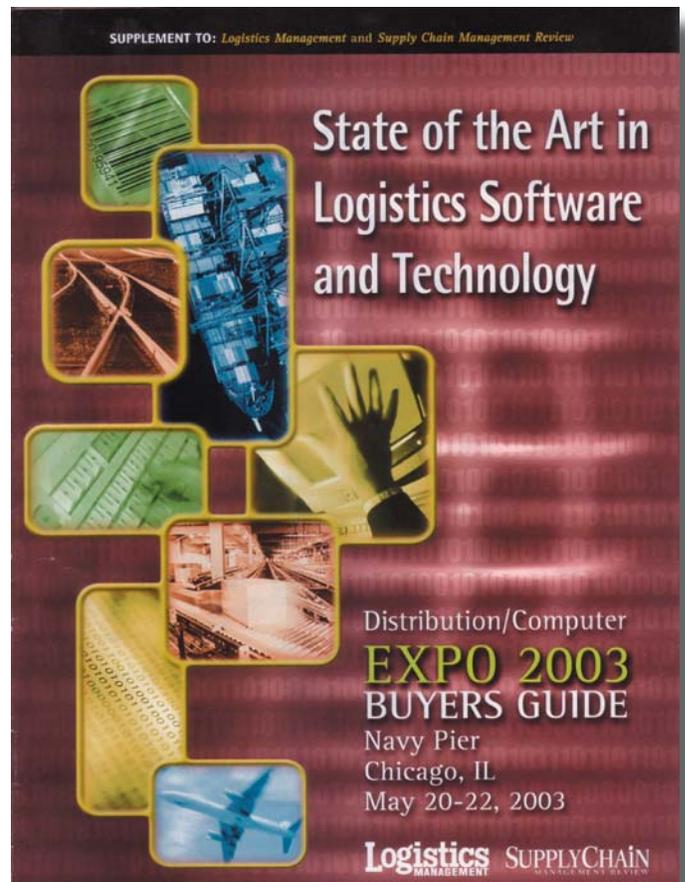
Kom International’s Wulfraat agrees that the focus will continue to be on execution systems that translate into faster order turnaround, increased inventory turns and reduced operating expenses.

“Supply chain management technology investments that enable real bottom-line results will continue to dominate technology investments over the next several years,” says Wulfraat. He adds that regardless of where companies are within the supply chain, the main challenge for management will be to fix broken processes before investing in new software.

“No technology solution is a silver bullet if it ends up automating bad processes, becoming highly customized or if associates are not properly trained on the software,” he says.

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