

ARC BRIEF

By ARC Advisory Group

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IT in the LSP Industry: The CIO Perspective

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Executive Overview

The Logistics Service Provider (LSP) industry has changed dramatically over the past decade. The industry is much more global today; the competitive landscape is more intense, fueled by mergers and acquisitions; and customers expect more from their LSPs, with regards to cost, service, and responsiveness.

LSPs Interviewed

- BDP International
- Future Logistics
- Kuehne + Nagel
- Menlo Worldwide
- New Breed
- Penske Logistics
- Progistix
- Schneider Logistics
- UTi Worldwide

In light of these changes, how have the role and the responsibilities of the IT organization changed? What are the key metrics LSPs use to evaluate the success of their IT investments and organization? What are their investment priorities and IT strategic objectives?

To shed light on these and other questions, ARC interviewed Chief Information Officers (CIOs) and IT executives from leading LSPs. This report highlights the key findings from these interviews, including:

- IT is a very important component of an LSP's value proposition. The IT organization is no longer just a "back stage" function; it's also an important contributor to the front-end sales process. Even so, IT budgets have not kept up with business growth, and upper management has not fully integrated IT into the "DNA" of the business.
- Simplifying and standardizing business processes and IT systems, across all global locations, is a critical objective for many LSPs, especially those that have grown via mergers and acquisitions.
- LSPs are investing in visibility, event management, and business analytics applications to give customers and senior management more timely and accurate visibility to financial and operational performance.
- Most IT executives recognize the value of Service Oriented Architecture (SOA). However, they also believe that migrating to SOA will be long and costly, and they don't know how to "sell" architecture-related investments to the CEO and Board of Directors.
- In contrast to SOA, investments in Master Data Management (MDM) are much easier to justify due to the costs and inefficiencies associated with poor data quality, a problem that is only getting worse.

IT Goals: Standardize and Globalize

The IT organization is more proactive today in identifying new business opportunities and process innovations, instead of just reacting to problems and requests.

A Logistics Service Provider's success is much more dependent today on Information Technology than ever before. All of the IT executives interviewed agree on this point. The IT organization is no longer just a "back stage" function; it's also an important contributor to the front-end sales process. As one IT executive commented, "IT is part of the customer relationship lifecycle," starting with the initial meeting, through implementation, and continuing with ongoing innovation and improvements.

The IT organization is also more proactive in identifying new business opportunities and process innovations, instead of just reacting to problems and requests, as the following comments illustrate.

"IT is expected to understand business as much as operations, [we need] to have business acumen. We need to be smart enough to give [our internal and external clients] what they need, versus what they ask, because they don't always know what to ask."

"We're adopting lean concepts within the IT organization. We're strongly focused on empowered teams and continuous improvement, on the removal of waste."

Mergers and acquisitions and global expansion have created new challenges for IT.

Supply chain and logistics processes are more global and dynamic today, which has led to increased outsourcing and the growth of the LSP industry.

"Growth has been an order of magnitude greater than we anticipated in the 1990s."

"Our revenue has more than doubled in 5 years and we have 4 times the number of employees."

Part of this growth has been driven by mergers and acquisitions (M&A), and many LSPs that were operating domestically just a few years ago are now active in various countries around the world. M&A and global expansion, however, have created new challenges for IT.

"We've been growing by acquisition. Do we assimilate the acquired company or keep them as a standalone? We struggle with this decision."

"IT was very geographic specific. It was an exercise in how to exchange data [between the different geographies and systems]. The focus for IT now is to standardize and globalize processes and systems."

"Standardize" and "globalize" were the two most common terms used by the IT executives when describing their key initiatives. Standardize and

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globalize processes (in operations and IT), applications, and infrastructure. Not surprising, the primarily goal is to reduce costs, because as one executive commented, *"Our [IT budget] has not grown as fast as the business. We are expected to do more with less."* Increased productivity is another important objective, as the following comments show.

"No customers are saying we want to pay you more money. Therefore, we need to convert manual processes into automated ones [in order to reduce costs and stay profitable]."

"We leverage technology to improve automation and productivity; we want to replace faxes, emails, and phone calls with self-service portals."

Many CEOs in the industry, many of them former truck drivers and warehouse operators with limited knowledge of technology, still perceive IT as just another cost of business.

"We need to figure out how to provide business-specific functionality [to our various operating units and clients] without having separate IT systems for each of them."

Briefly stated, IT's role and importance have increased significantly over the past decade. However, many CEOs in the industry, many of them former truck drivers and warehouse operators with limited knowledge of technology, still perceive IT as a cost of doing business. As one IT executive commented, *"Our CEO looks at IT investments like buying new trucks; there's nothing strategic about it."* Another executive summarized it this way: *"I still don't see a full integration of IT into the 'DNA' of the business."*

Measuring the Success of IT

Operational metrics like "uptime" and "response time" remain important, but every LSP has to excel in these areas to stay in business. IT organizations are much more project-driven today, so metrics related to on-time

delivery and budget performance are more common, as this comment suggests: *"We have an NPI [New Product Introduction] focus. What new products did we deliver? How are those tools being used? Are they delivering value?"*

A few of the LSPs interviewed are linking IT performance with the company's overall success in meeting its financial and strategic objectives.

A few of the LSPs interviewed are taking it a step further by linking IT performance with the company's overall success in meeting its financial and strategic objectives.

"IT is successful if the business is successful; it's hard to separate."

"Yeah, we delivered the project on time, but did the company meet its revenue and profitability goals? We used to deliver product to the business and then walk away. Under our new model, [where IT is also held accountable for overall corporate performance], IT is continuously looking for opportunities to improve."

And of course, there is always the "whine factor," as one executive explained. *"If nobody is complaining, then things are going well."*

SOA: A Long and Costly Road

Most of the IT executives interviewed recognize the value of Service Oriented Architecture (SOA), especially with regards to improving flexibility, as the following comments illustrate:

"We're [working] to productize our offerings based on standard lean processes; we're shifting from a 'build-to-order' to an 'assemble-to-order' mindset."

"SOA will provide more flexibility and shorter delivery times by providing a platform of re-usable components. As BPM tools become more mature, we'll be able to configure process flows leveraging our own and business partners' services."

"It helps with flexibility; we don't need an army of programmers to make changes."

"We can add and subtract customers more easily and less costly."

"We're [working] to productize our offerings based on standard lean processes; we're shifting from a 'build-to-order' to an 'assemble-to-order' mindset."

But migrating to an SOA environment will be a long and costly process, and IT executives don't know how to sell architecture-related investments to their CEOs.

"SOA sounds good, but it also sounds expensive. It's abstracted from business value."

"It will cost us a lot, probably \$7-\$10 million per year over the next five years."

One executive justified their architecture initiative by linking it to something near and dear to his CEO's heart, namely the ability to provide him with timely and accurate financial performance information via a dashboard.

"The concept is wonderful, beautiful vision, but it's going to take a while and a lot of work."

"We'll have to manage hundreds of services, from many vendors with different pricing structures; costs could get out of control."

"Selling 'architecture' to the CEO and CFO is very hard. Where is the payback? What is the Return on Investment? Even guys in IT don't fully understand it."

The difficulty of "selling architecture" to senior management was echoed by several IT executives. A CIO, from an LSP with roots in transportation, tried to explain the importance of architecture to his CEO by using a trucking analogy. *"It's like maintenance for a truck,"* he told his CEO. *"You don't have to change the oil or replace the tires on your truck, but after 100,000 miles, that truck will start to have problems and break down. It's the same thing with IT.*

The truth is there's no simple solution. It's ultimately the CIO's responsibility to figure out a way to drive change, to free up resources and money for an architecture initiative, even as their budgets are held firm or reduced.

You don't have to invest in architecture, but at some point it's going to break down and you won't be able to run the business."

What's the solution? One IT executive didn't believe much progress could be made until a *"new generation of management takes over, people who are familiar with IT and have grown up with it."* This would certainly help, but it would also take a decade or more to occur, and LSPs that haven't made significant progress in transforming their architecture by then would likely be out of business.

The truth is there's no simple solution. It's ultimately the CIO's responsibility to figure out a way to drive change, to free up resources and money for an architecture initiative, even as their budgets are held firm or reduced. Several LSPs, for example, have transferred a lot of development and maintenance work to low-cost partners in China and India. One IT executive

justified their architecture initiative by linking its value to something near and dear to his CEO's heart, namely the ability to provide him with timely and accurate financial performance information via an online dashboard. The CEO was accustomed to having this information when the company was growing organically and had a single IT platform. But after several mergers and acquisitions, the company inherited a variety of IT systems, across multiple geographies and currencies, and so collecting and reporting financial information (and ensuring its accuracy) became much more difficult. The justification came down to a simple statement: If you want these reports again, we need to transform our architecture.

Master Data: 'One Version of the Truth'

"MDM is [becoming more important] as supply chains become more virtual. It is increasingly more critical to have common master and reference data to smooth the transactional integration."

"We're very active in this area," said one of the executives. "We have customer data across many systems; we're looking for 'one version of the truth'."

This comment summarizes the general view of the IT executives interviewed. In contrast to SOA, investments in Master Data Management are much easier to justify due to the costs and inefficiencies associated with poor data quality, a problem that is

only getting worse due to globalization, mergers and acquisitions, and product proliferation. *"We're very active in this area,"* said one of the executives. *"We have customer data across many systems; we're looking for 'one version of the truth'."* Other executives highlighted the effort required to achieve this goal:

"Data quality management is very important. Everything we do is based on data. We spend 50% of our time preparing data and cleaning it."

"We spend a lot of time and pain scrubbing data. You'll be amazed how many times something fails because [customers] change something and they don't tell us."

"We've spent a lot of time to build a team and [develop] processes to standardize and control data as it come in. Operations and IT need to work together [in this effort]; the end goal is standardization."

Several LSPs have developed “intelligent systems” that infer and fill in missing information, auto-correct errors, or send alerts that trigger human intervention. As highlighted earlier, providing customers and partners with self-service Web portals is another way LSPs are addressing the problem. *“We have invested significantly in our own [MDM] solution within a 4PL environment,”* said one of the executives, *“and we keep our eye on the market to see if improved solutions surface. MDM is costly to implement and maintain, especially in a growing or changing network.”*

Data quality and data management are very tangible and costly issues for LSPs. The road to SOA starts with MDM, and vice versa.

Simply stated, data quality and data management are very tangible and costly issues for LSPs. The road to SOA starts with MDM, and vice versa. The two are interwoven, as these comments illustrate:

“Data issues need to be fixed in order for a SOA environment to run properly.”

“Data cleanliness has allowed senior management to get reports. We need to invest in architecture to get integrated MDM to get reporting. SOA is part of the architecture improvement [required to achieve] integrated MDM.”

“I can get money for MDM; the value is easier to quantify than SOA.”

Information Drives Process Innovation

“Most innovation in supply chain is coming out of how to leverage information to change processes.”

Important Attributes for Selecting Software Solutions

- Scalability
- Flexibility
- Functional Alignment
- Interoperability
- Standards-based
- Global Support
- Vendor Commitment

This comment nicely summarizes the underlying reason why LSPs are working to simplify, standardize, and globalize their processes, software applications, and IT infrastructure; why they’re investing in MDM and moving, albeit slowly and cautiously, towards SOA; and why they’re investing in visibility, event management, and business analytics solutions.

The demand for better visibility is driven by both internal and external customers. *“We want give our customers information that nobody else can provide,”* explained one of the executives. In other words, providing visibility to orders, shipments, and inventory is important, but it’s not a differentiator anymore. Information

that identifies and explains, for example, cost variability or lead time variability, by product, customer, origin-destination pair, etc., is much more valuable. It's this type of information that drives continuous improvement and creates new business opportunities for LSPs.

Summary & Recommendations

Information Technology in the LSP industry is more important today than ever before. As the industry continues to consolidate and expand globally, IT will play a leading role in cost control, productivity improvement, and new business development. This assumes, however, that LSPs will continue to invest in data management and Service Oriented Architecture, which can only happen if CEOs and other senior executives change their perspective of IT as a "cost of doing business" and integrate IT within the "DNA of the business."

Recommendations

- CEOs at LSPs need to become better versed in IT and its strategic value. If you believe that investing in IT is like buying a truck or building a new warehouse, you're not positioning your company for long-term success.
- IT executives need to find ways to free up resources and money. Outsourcing parts of your activities to partners in low-cost regions is one option. Find out what information and capabilities are "near and dear" to the CEO and CFO and link your architecture initiative to enhancing these deliverables.
- Software vendors need to work more closely with IT executives at LSPs. In addition to adding more LSP-specific functionality to their applications, which will continue to drive investment decisions, vendors need to help IT executives communicate the value of SOA more effectively to senior management. The value needs to be expressed in terms these C-level executives, many of whom are former truck drivers and warehouse operators, can appreciate.

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Acronym Reference: For a complete list of industry acronyms, refer to our web page at www.arcweb.com/Community/terms/terms.htm

BPM	Business Process Management	LSP	Logistics Service Provider
CEO	Chief Executive Officer	MDM	Master Data Management
CFO	Chief Financial Officer	ROI	Return on Investment
CIO	Chief Information Officer	SOA	Service Oriented Architecture
IT	Information Technology		

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