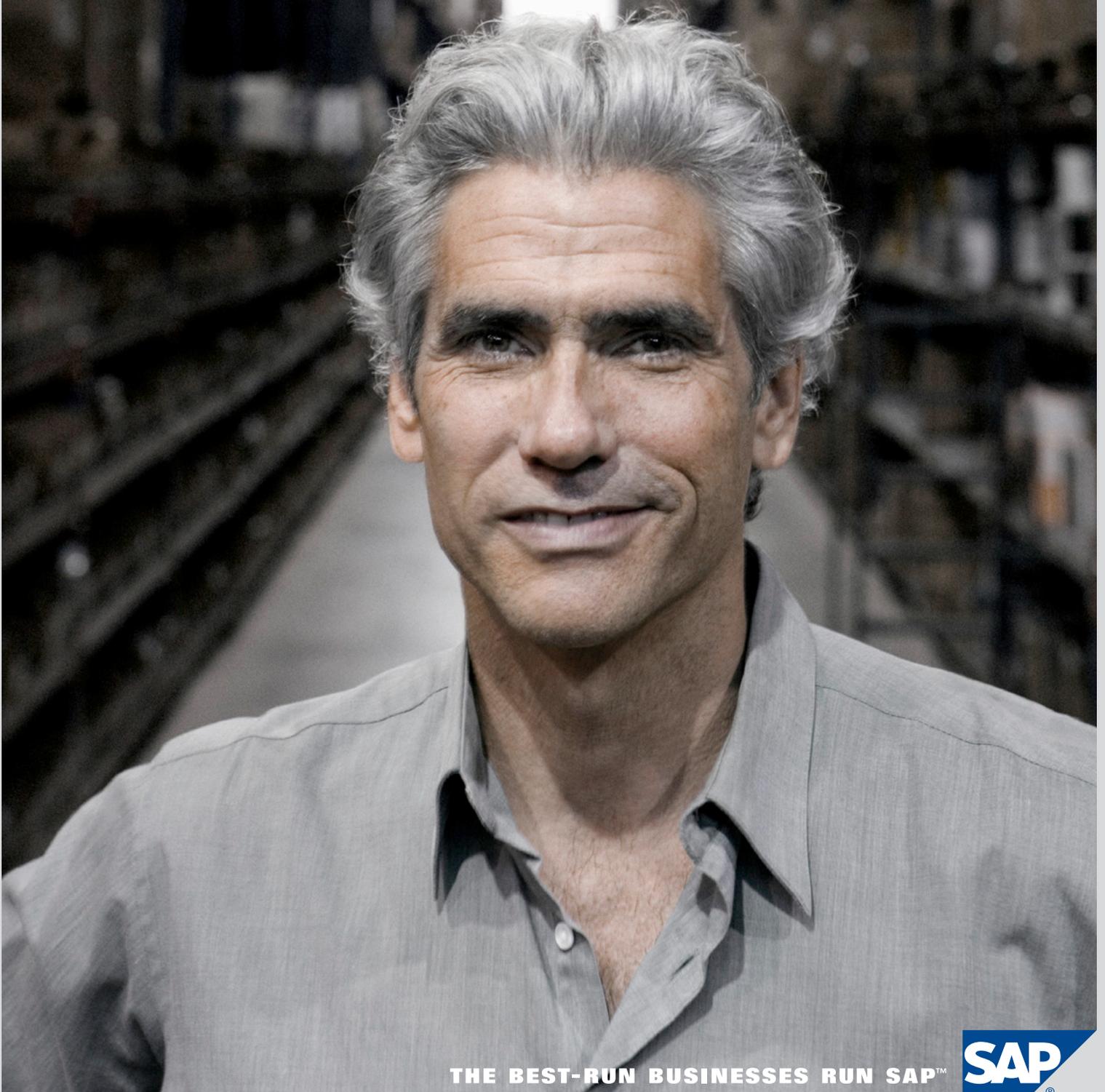


SAP for Travel & Logistics Services

## **LOGISTICS SERVICE PROVIDERS: MANAGING IT MATURITY**

ACHIEVE PROFITABLE GROWTH WITH A  
SINGLE BUSINESS PROCESS PLATFORM



THE BEST-RUN BUSINESSES RUN SAP™





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# INTRODUCTION

The existing IT infrastructure of most LSPs is a key inhibitor to achieving **profitable growth**, the number one strategic initiative for the industry.

The quote above, from a CIO interviewed in late 2006, reveals an important trend in the logistics service provider (LSP) industry today – C-level executives and board members are having serious discussions about information technology. The reason is simple – their existing IT infrastructure (proprietary, outdated, and nonscalable) is a key inhibitor to achieving **profitable growth**, the number one strategic initiative for most LSPs.

On the revenue side of the profitability equation, LSPs are seeking growth by:

- Providing clients with a more holistic value proposition for business process outsourcing
- Expanding into new vertical industries and geographic regions
- Serving the needs of small and midsize companies, a virtually untapped segment of the outsourced logistics market

To reduce costs, LSPs are focusing on improving the productivity and utilization of their people, assets, and other resources. And they're looking for ways to bring new clients on board more quickly and with less effort.

What many LSPs are discovering, however, is that their existing IT infrastructure, typically consisting of proprietary applications built on outdated architectures, cannot support these revenue and cost objectives. Aging infrastructure also hinders their ability to respond quickly and effectively to customer requests for process changes, information, and new services. It's not

There are many signs, however, that the LSP industry has reached the IT tipping point. Over the past 18 months, for example, ARC Advisory Group has received many inquiries from service providers looking for advice and assistance as they update their IT strategy and prioritize their investments. ARC's market research also shows that LSPs are moving away from proprietary appli-

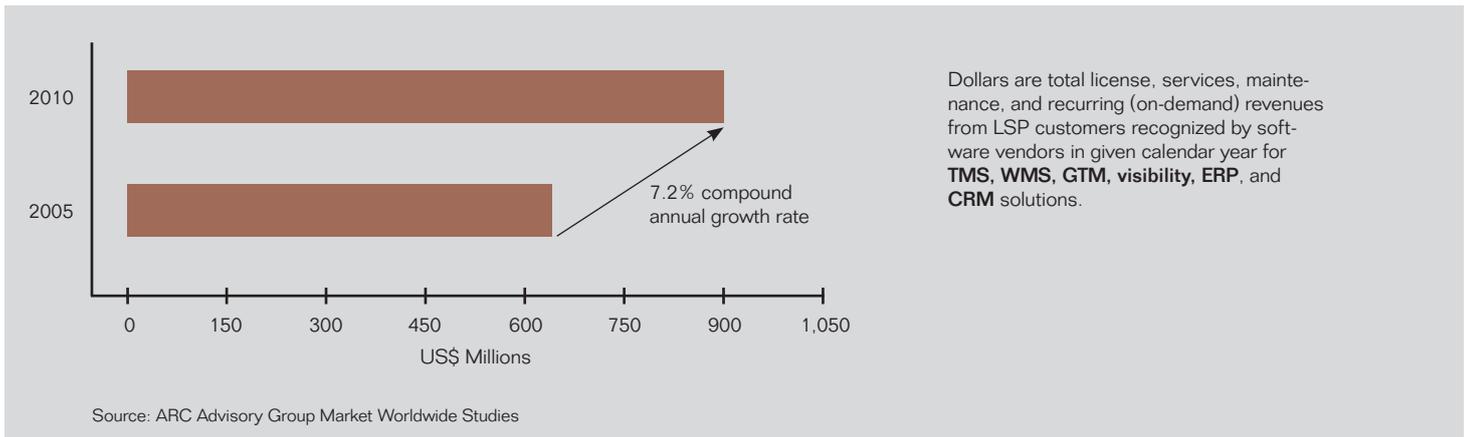
“It's like maintenance for a truck. You don't have to change the oil or replace the tires, but after 100,000 miles, that truck will start to have problems and break down. It's the same thing with IT. You don't have to invest in technology, but at some point, it's going to break down and you won't be able to run the business.”

**Adrian Gonzalez**, Director, Logistics Executive Council, ARC Advisory Group

surprising, therefore, that most customers are dissatisfied with the IT capabilities of their logistics service providers.

A number of factors have contributed to the current state of IT in the LSP industry. Mergers and acquisitions, for example, have left many LSPs with a patchwork of heterogeneous applications that don't integrate very well, are difficult to reconfigure, and are costly to maintain. The evolution of the software industry is another contributing factor. Until relatively recently, most software vendors did not include LSP-specific functionality in their applications, which were primarily developed for manufacturers and retailers. As a result, many LSPs were forced to develop and maintain their own applications.

cations and investing in third-party solutions. For example, sales of transportation management systems (TMSs) to logistics service providers reached US\$171 million in 2006, an increase of almost 13% from the previous year, significantly outpacing sales to manufacturers and retailers. By 2010 ARC forecasts that LSPs will spend over \$900 million in enterprise and supply chain management (SCM) software, including TMS, warehouse management systems (WMSs), global trade management (GTM), enterprise resource planning (ERP), and customer relationship management (CRM). Figure 1 illustrates this increase in spending.



**Figure 1: Forecasted Growth in LSP Spending on Enterprise and SCM Software**

This forecast assumes that software vendors will increase their commitment to the LSP industry by (among other things) adding industry-specific functionality to their solutions. SAP is a great example of this trend in action. The latest version of the SAP® Transportation Management application, for instance, was designed from the ground up with the needs of the LSP industry in mind, incorporating freight forwarding and other transportation operations capabilities. SAP also launched an industry value network for the travel and transportation industries, a medium for ongoing collaboration and innovation between SAP and participating companies, including LSPs and software partners.

It's clear from the research, as well as from the survey results highlighted in this report, that CEOs at logistics service providers must become better versed in IT and its strategic value. If CEOs continue to believe that investing in IT is no different than buying another

truck or building a new warehouse, they're not positioning their companies for long-term success.

Logistics service providers need to consider many factors when developing their IT strategy and investment plan, including their existing infrastructure and resources, the business processes and information requirements of their customers, and trends in software technology, such as enterprise service-oriented architecture (enterprise SOA). LSPs should also think beyond TMS and WMS and take a more holistic approach to their IT requirements, including master data management and customer relationship management. Finally, LSPs need to select technology partners that are aligned with their long-term strategy, show a commitment to the industry, are financially stable, and can provide global support.

Are LSPs at the IT tipping point? As in the truck metaphor, many LSPs are past due for an IT maintenance check. The real question is: Will they continue

to drive their existing infrastructure until the breaking point, or will they make the necessary investments today to successfully traverse the long road ahead, wherever it may lead?

ARC Advisory Group's market research shows that LSPs are moving away from proprietary applications and investing in third-party solutions. By 2010 ARC forecasts that LSPs will spend over US\$900 million in enterprise and supply chain management software.

# HOW LSPs HAVE REACHED THE IT TIPPING POINT

To further parse the concept of the “IT tipping point,” SAP commissioned an independent survey of 232 logistics service providers in June 2007. The respondents included key participants in the logistics and transportation industry – truckload and less-than-truckload (LTL) carriers, third-party logistics providers, railroads, intermodal carriers, parcel/small package providers, warehousing and distribution providers, freight forwarders, ocean carriers, and other transportation providers.

The results of the survey identified three primary realities that ultimately impact whether an LSP will successfully “traverse the long road ahead” or find its ability to succeed grinding to a halt:

- Profitable revenue growth is a top strategic initiative.
- Current IT infrastructures are not up to the task of achieving this growth.
- LSPs need a single business process platform to support key business processes and future growth.

When asked about strategic initiatives, the SAP survey respondents sent back a strong message. With response rates of 75% and 71% respectively, profitable growth and revenue growth were cited as the top strategic initiatives, as shown in Figure 2. It is also interesting to note that these same firms cited using IT as a strategic differentiator necessary to achieving this growth and ranked it as the third most important strategic priority for LSPs.



Figure 2: Top Strategic Initiatives for LSPs

Also emphasizing the key role of IT in realizing corporate objectives, an overwhelming 94% of survey respondents cited IT as either important or critical to growing the business. Almost 50% of respondents recognized that their current IT systems are inadequate to achieve profitable growth. As a result, many LSPs are expected to make significant investments to replace or upgrade their IT systems within the next two years.

Validating these sentiments, Capgemini LLC conducted the 12th annual third-party logistics study in conjunction with the Georgia Institute of Technology in

2007. This research confirms a persistent challenge for third-party logistics providers and the LSP industry as a whole. It finds that while more than 90% of respondents recognize IT capability as a necessary dimension of success, only 42% of respondents report being satisfied with their ability to deliver technology-based services. The result is a significant IT performance gap, as shown in Figure 3.

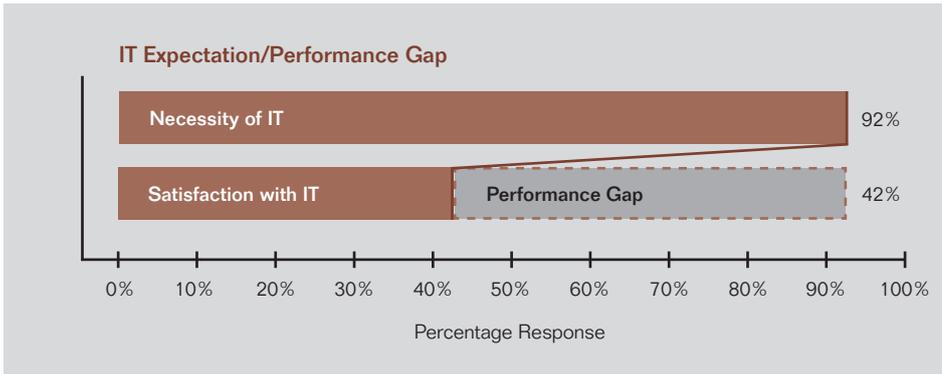


Figure 3: IT Expectation/Performance Gap<sup>1</sup>

Let's take a moment to look at each of these themes in detail. As we do so, it will become apparent that LSPs are indeed at an IT tipping point, as ARC asserts. It is also clear that to stay on the right path – the path to growth and success – LSPs need to adopt a single, adaptive, and holistic business process platform to meet their needs.

1. *The State of Logistics Outsourcing, 2007 Third-Party Logistics: Results and Findings of the 12th Annual Study*. Capgemini LLC, Georgia Institute of Technology, DHL International GmbH, and SAP AG, 2007.

# HOW THE IT PERFORMANCE GAP IMPACTS LSPs' PURSUIT OF PROFITABLE GROWTH

Several factors contribute to the IT performance gap. First, the LSP software market has traditionally deployed best-of-breed point solutions or developed in-house applications designed to address specific IT or business process needs. This is often done without first defining the cross-functional business processes critical to the LSPs' success and then mapping them to the requisite enterprise systems architecture that can enable these processes. Without an overarching plan, IT costs escalate, change is difficult, and business flexibility diminishes. LSPs end up investing disproportionately in IT integration and maintenance activities rather than improving their core business operations. Ultimately, this leads to the complex, heterogeneous operating model depicted in Figure 4.

Second, merger and acquisition activity has compounded the IT performance gap by increasing the patchwork of point solutions and legacy systems being supported. This disparate and mismatched set of systems requires LSPs to invest heavily in IT resources focused on low-value integration activities rather than enabling business innovation. This, in turn, restricts the ability of LSPs to serve clients and drives up operational costs. In an increasingly competitive, global, and complex operating environment, LSPs need to concentrate more of their efforts on ensuring that they can readily adapt to changing market conditions, optimize their internal operations, and work effectively and efficiently with their customers and business partners. Only a flexible, integrated, and properly architected solution will allow LSPs

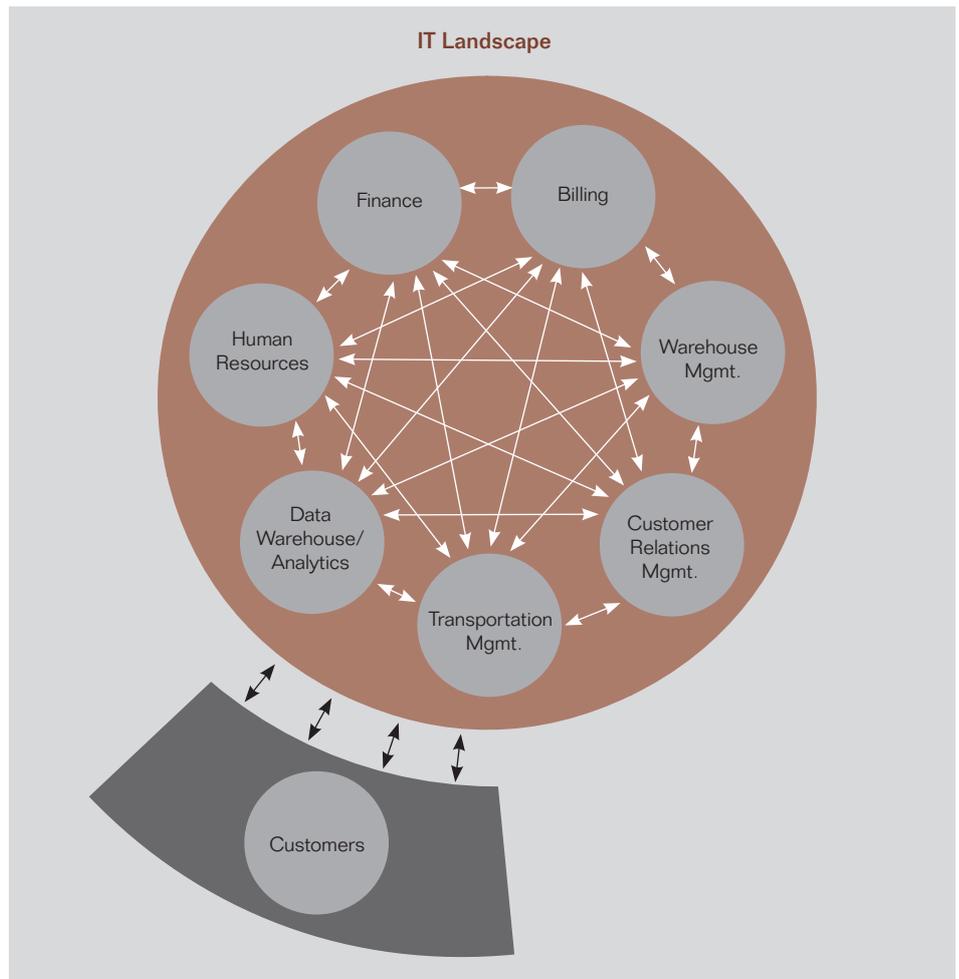


Figure 4: IT Landscape of Homegrown and Best-of-Breed Systems with Multiple Interfaces

to focus on improving business processes rather than on IT “plumbing.” A single business process platform can provide the inter- and intraenterprise visibility required to achieve corporate and operational goals.

The challenges for companies suffering under this IT performance gap – and the inefficient systems causing the gap – are numerous. LSPs provide a variety

of services to their customers, from Web-enabled communications and transportation management to visibility tools (such as tracking, tracing, and event management) and customer order management, as illustrated in Figure 5. However, most often these processes have been automated independently, resulting in a tangled web of disconnected solutions. A routine task such as customer

“onboarding” – which requires CRM, order management, billing, and warehouse management applications to work together – becomes an inefficient, time-consuming endeavor requiring inputting and double-checking data in multiple systems. The more difficult it is to onboard a new customer, the more likely it is that the goals of profit and revenue growth become mutually exclusive.

The use of point solutions and applications developed in-house also makes

adapting to new business realities very difficult. For example, if an LSP wishes to implement a new mileage-based fuel surcharge, it must identify where this process touches each independent application, make the required coding changes in each application, test the changes in each application, and, finally, test the process change across all of the applications. This is not only prohibitively expensive, but it is a time-consuming, low-value activity that severely impedes the ability of the LSP to innovate or implement regulatory changes.

The gap between the IT infrastructure that LSPs need to support efficient processes and what they actually use undermines their strategies for growth. The lack of IT integration clouds businesswide visibility and makes it difficult to support global clients and their requests for cross-border services. Service-level commitments are jeopardized, and manual processes introduce costly errors. With IT capabilities that simply cannot meet changing business requirements, LSPs have definitely arrived at a costly and complex IT tipping point.

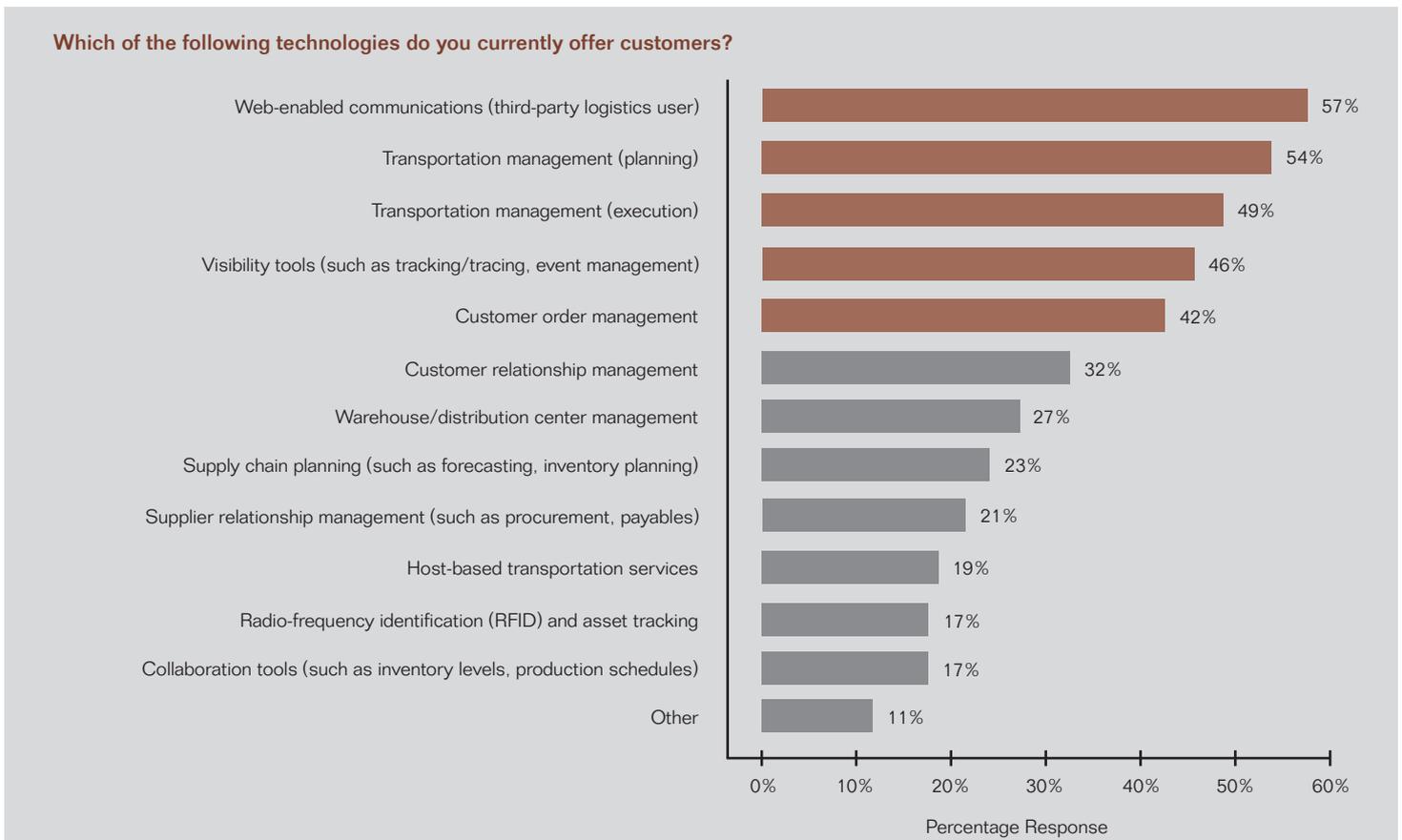


Figure 5: Technologies That LSPs Currently Offer Customers

# HOW A SINGLE BUSINESS PROCESS PLATFORM PROVIDES LSPs AN OPPORTUNITY

The good news is that LSPs are already tuned in to the solution to their IT performance gap. According to SAP's survey results, many LSPs have identified their need for a single business process platform that can support their wide range of business functions. Survey respondents felt that many customer-facing business processes could benefit from an integrated technology platform, specifically noting their need for integrated customer service, sales and operations planning, accounts receivable/accounts payable, and order

management processes, as illustrated in Figure 6.

Technology based on an enterprise SOA can provide the kinds of integration and flexibility LSPs need to grow. For example, almost every LSP wrestles with complex event management that involves multiple customers across multiple supply chains. When a shipment moves from vendor A to vendor B, an LSP must be able to capture, analyze, and react to events as they happen at the order management,

warehouse management, customs, and ocean freight levels. Event management doesn't reside within one point system, however, but must be flexibly managed across multiple applications and supply chains. With a single business process platform based on enterprise SOA, the LSP integrates event management with logistics to manage events seamlessly.

What LSPs need, as illustrated in Figure 7, is a single business process platform that supports core transportation

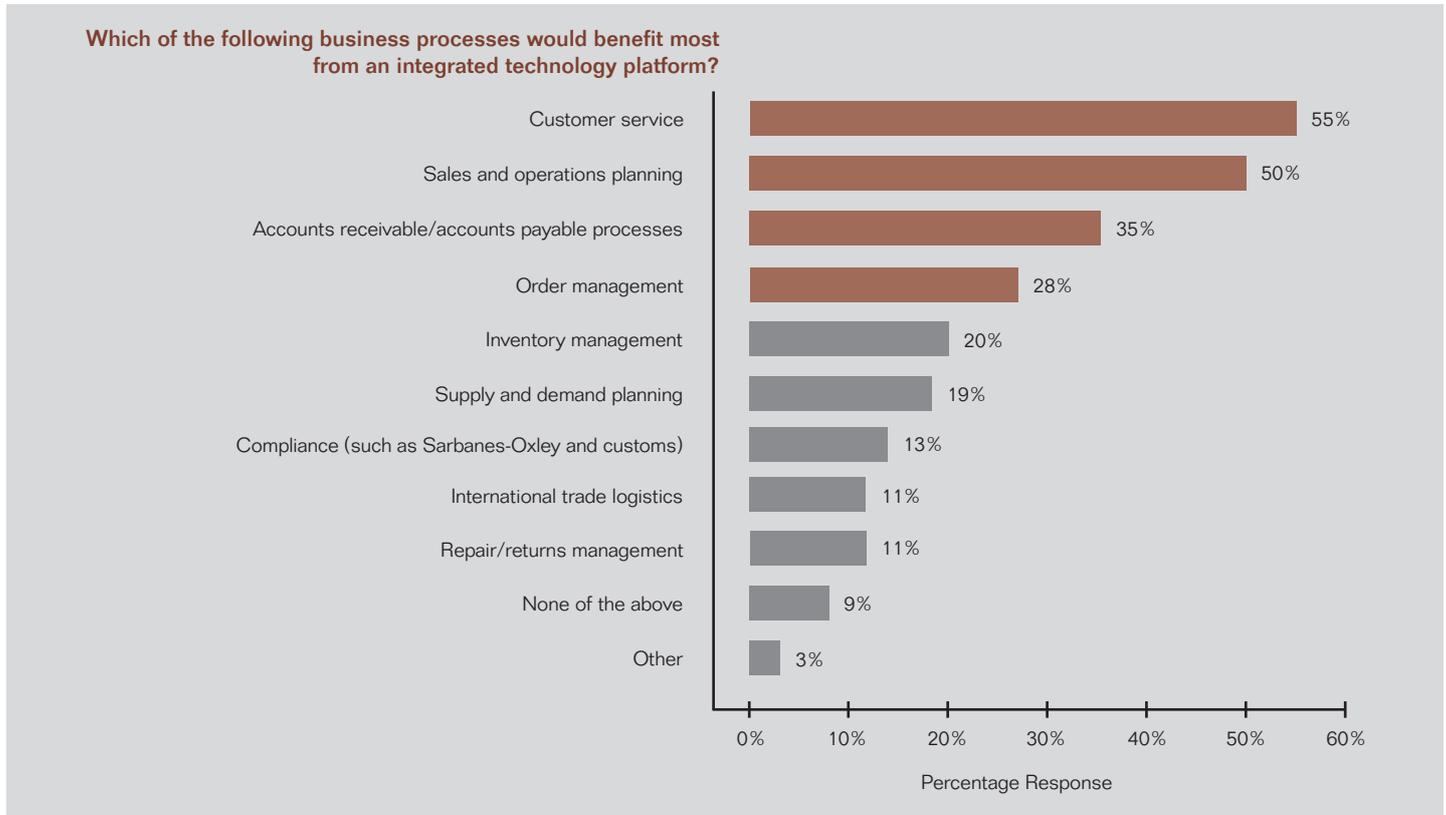


Figure 6: Business Processes That Would Benefit Most from an Integrated IT Platform

management, customer management, and back-office applications. With a single business process platform, LSPs can support critical business processes on a single platform within the four walls of the company while extending core functionality and new services to customers. For example, an LSP with a

single business process platform could offer IT-enabled customer services. These might include real-time status updates, accurate and easy billing, key performance indicators (KPIs) evaluating services rendered, and automated contracting and procurement processes.

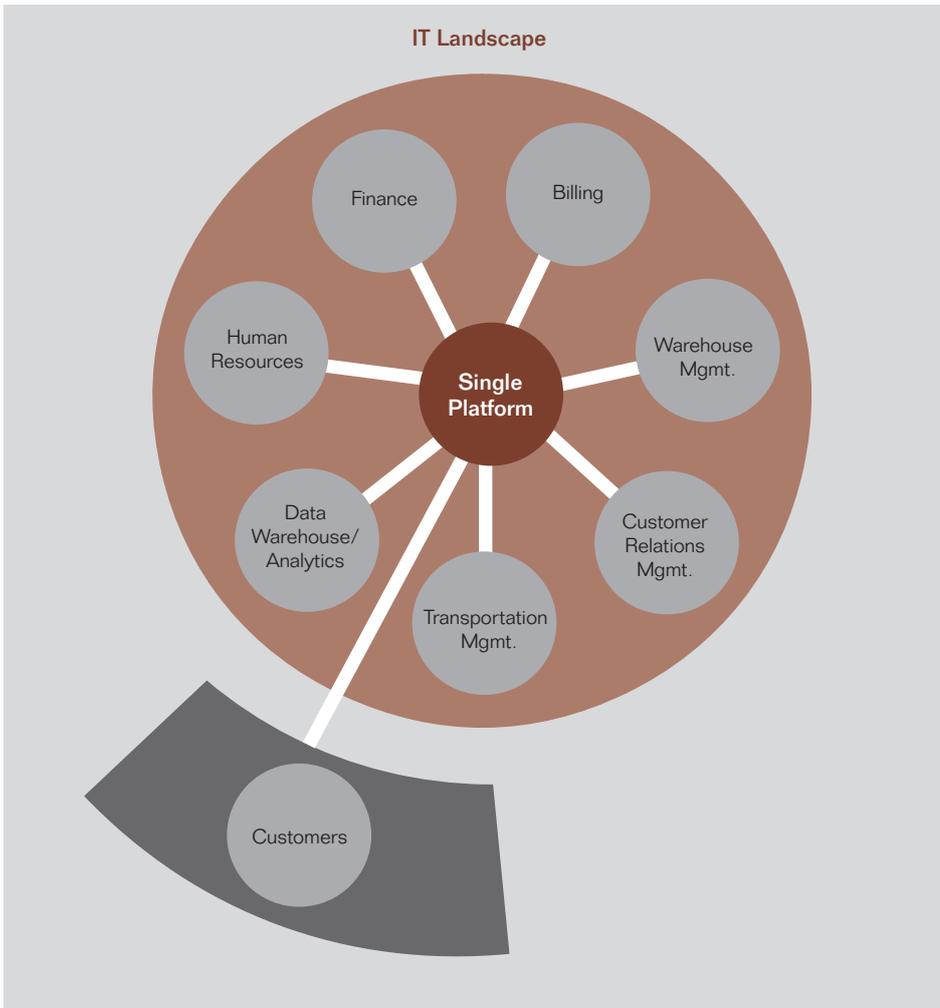


Figure 7: A Single Business Process Platform

### BNSF to Roll Out SAP® Software

In September 2007 SAP announced that BNSF Railway Company, one of the largest rail operators and transporters in North America, will transform its internal management system by implementing the SAP® Business Suite family of business applications. The SAP software rollout will establish a single business process platform that interconnects BNSF’s financial, compliance, payroll, and human capital operations. This enterprise landscape will improve transaction visibility, enable real-time processing of invoices, and enhance management control.

BNSF selected SAP Business Suite to bring a more integrated and seamless approach to internal processes. “Virtually all of the company’s back-office systems will be replaced, and the integrated system will be a strategic platform for the company,” says Paul Bischler, vice president and controller at BNSF.

“BNSF is a shining example to other freight transporters,” says Rodney Strata, industry principal for transportation and logistics at SAP. “IT revitalization is needed today to prepare for the sweeping business changes that lie ahead for the railway industry.”

# SAP SOLUTIONS AVAILABLE FOR LOGISTICS SERVICE PROVIDERS

SAP software supports a single, enterprise SOA-enabled business process platform for LSPs ready to address the IT performance gap. The SAP for Travel & Logistics Services solution portfolio consists of integrated solutions that couple a flexible enterprise SOA with industry-specific functionality. By making multiple applications behave as one, these solutions help LSPs reduce the cost of change, maintain key business processes, and easily adopt innovative cross-functional processes. A single business process platform also allows LSPs to leverage current investments in software, use legacy systems as needed, and harness partner logic and intellectual property to strengthen their core solutions.

## Designed for the LSP Operation

The SAP for Travel & Logistics Services solution portfolio includes segment-specific business process functionality for the third-party logistics, freight forwarding, rail, trucking, parcel, and container shipping-line industries. The solutions include core operational software, such as LSP-specific transportation management and warehouse management functionality. They also provide ERP software for supply chain management and LSP-tailored solutions for financials, customer relationship management, and HR.

SAP offers the most comprehensive solutions available, providing world-class functionality for both core business operations and back-office functions. They are supported by SAP's 30+ years of experience with over 500 logistics customers worldwide.

## SAP Solution Map for LSPs

Business Process	Functionality Provided in SAP® Software
Sourcing	<ul style="list-style-type: none"> <li>Freight procurement</li> </ul>
Operations	<ul style="list-style-type: none"> <li>Fulfillment operations</li> <li>Transportation operations</li> <li>Warehouse operations</li> <li>Service parts management</li> </ul>
Client management	<ul style="list-style-type: none"> <li>Campaign management</li> <li>Account and contract management</li> <li>Lead and opportunity management</li> <li>Compliance and returns management</li> </ul>
Visibility and compliance	<ul style="list-style-type: none"> <li>Supply chain event management</li> <li>Global trade services</li> <li>Collaborative planning platform</li> </ul>
Analytics	<ul style="list-style-type: none"> <li>Strategic enterprise management</li> <li>Financial analytics</li> <li>Operations analytics</li> </ul>
Financials	<ul style="list-style-type: none"> <li>Financial supply chain management</li> <li>Financial accounting</li> <li>Management accounting</li> <li>Corporate governance</li> </ul>
Human capital management	<ul style="list-style-type: none"> <li>Workforce process management</li> </ul>
Corporate services	<ul style="list-style-type: none"> <li>Travel management</li> <li>Environment, health, and safety compliance management</li> <li>Incentive and commission management</li> <li>Real estate management</li> </ul>
Operations support	<ul style="list-style-type: none"> <li>Life-cycle data management</li> <li>Quality management</li> <li>Indirect procurement</li> </ul>

SAP solutions help LSPs close the IT performance gap. The solutions empower LSPs to provide industry-specific best-practice services that keep them competitive and support growth initiatives. With these flexible SAP solutions, LSPs can rapidly adapt to support changing customer needs and drive innovation in key business processes. In addition, SAP solutions work across multiple clients and multiple supply chains, allowing LSPs to flexibly

integrate with customers' and partners' IT systems and share a common system landscape and language.

### Spotlight on SAP Transportation Management

Understanding the need for an innovative approach to transportation management, SAP – with input from domain experts and customers – created a comprehensive transportation management application from the ground up. Built on the

SAP NetWeaver® technology platform, which provides the foundation for a single business process platform, SAP Transportation Management can be installed as part of an ERP solution or as a stand-alone application. It empowers LSPs with advanced methods to manage both local and global transportation for their clients, including:

- Transportation execution – creating, executing, and monitoring shipments in an integrated manner using functionality for shipment tendering, freight documentation, and billing with buy-side and sell-side rate calculations
- Transportation planning – planning and optimizing shipments for air, rail, truckload, LTL, ocean, and intermodal transport
- Shipment and supply chain monitoring and control – defining, selecting, and monitoring KPIs and obtaining a single, comprehensive view of activities and performance with complete visibility across the supply chain

#### Spotlight on SAP NetWeaver Master Data Management

The SAP NetWeaver Master Data Management (SAP NetWeaver MDM) component is an enabling foundation for enterprise services and business process management – providing a single version of the truth for customer, product, employee, supplier, or user-defined data objects. For example, SAP NetWeaver MDM can help alleviate the errors and inefficiencies of having the company name “Wal-Mart” input many different ways – such as “WalMart,” “Wal Mart,” or “Walmart” – throughout different applications. Working across heterogeneous systems at disparate

locations, SAP NetWeaver MDM ensures cross-system data consistency for growing LSPs.

#### Based on SAP NetWeaver

Choosing a business process platform that is not only good for today but can grow for tomorrow is crucial for LSPs. Because the SAP for Travel & Logistics Services solution portfolio is based on SAP NetWeaver, LSPs can quickly address their immediate IT needs and then expand their platforms over time within a sustainable cost structure. The SAP NetWeaver technology platform enables:

- Process integration – Simplifying the connection of disparate applications and business partners’ systems to provide a step toward the promise of a single business process platform
- Data unification – Ensuring that master data is accurate, free of duplicate records, and normalized
- Business information management – Increasing the visibility and reach of structured and unstructured enterprise data

#### Spotlight on Enterprise SOA

Enterprise SOA is a blueprint for an adaptable, flexible, and open IT architecture for developing services-based, enterprise-scale business solutions. With SAP NetWeaver as a technical foundation, an enterprise SOA moves IT landscapes to higher levels of adaptability – and elevates Web services to an enterprise level. An enterprise service is typically a series of Web services combined with business logic that can be accessed and used repeatedly to support a particular business process.

Examples include customer onboarding, workforce calling (for example, using crew/driver calling processes to enable calling maintenance workers as well), and mileage lookup.

# CONCLUSION

Many LSPs realize that their current IT infrastructure – often an assortment of legacy and best-of-breed systems – limits their ability to realize their strategic goals. LSPs are spending a significant amount of time and effort integrating disconnected IT systems to meet even the minimum levels of customer service. Even as LSPs struggle to connect these internal systems, they must also integrate with client and partner systems.

To enable growth and to close their IT performance gaps, LSPs need to develop and execute a plan that leads them toward the promise of a single business process platform. The flexibility of the SAP Business Suite family of business applications, combined with an enterprise SOA framework, provides LSPs with multiple starting points on this journey. SAP and its community of partners can help define this road map for LSPs and identify the areas where IT changes will drive the most incremental business value. From there LSPs can deploy new enterprise SOA-enabled applications in back-office management, core operations, or customer management while leveraging previous investments. They can then use the benefits as the springboard to future IT improvements. Overall, LSPs can dramatically improve their ability to provide value-added services to clients, and their single business process platforms can grow as they do, supporting global clients with innovative and differentiating services.

To find out how the SAP for Travel & Logistics Services solution portfolio gives you complete visibility into all internal business processes, provides your customers with accurate and global supply chain movement data, and supports your growth by closing your IT performance gap, please visit us at [www.sap.com/usa/industries/travelandlogisticservices/index.epx](http://www.sap.com/usa/industries/travelandlogisticservices/index.epx).



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