

March 2010

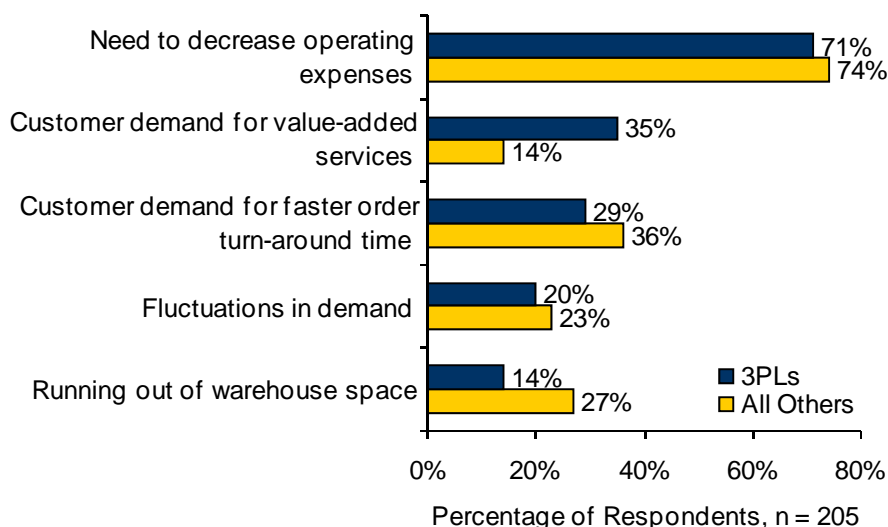
## Third-Party Warehousing: Adding Value . . . and Complexity

In November and December of 2009, Aberdeen surveyed 205 warehousing professionals for a benchmark report ([On-Time and Under Budget: Maximizing Profits with Efficient Warehouse Management](#)) exploring the pressures they are facing, and what plans they have for the coming months. From that group of respondents, this Insight focuses on one specific segment: third-party providers of warehousing services. How are these 51 companies coping with present economic conditions, what capabilities do they have, and what technologies do they rely on to ensure efficient operations, and provide value to their clients?

### Background: Balancing Cost and Service

Although the ultimate ownership of product, and the nature of their customers, may be different for 3PLs, they share the day-to-day concerns of order fulfillment with their peers. Across industries, revenue ranges, and supply chain functions, the need to reduce operating expenses is the main pressure driving warehousing professionals to improve their warehouse management performance (cited by 73% of all respondents). But this cannot be addressed in isolation; warehousing 3PLs must also address their customers' demand for value-added services (35%) at the same time. In difficult economic times, 3PLs are being called upon—and are uniquely situated—to take on additional tasks such as kitting, light assembly, and custom labeling, that will ease the burden on their clients' operations.

Figure 1: Pressures Driving Focus on Warehouse Performance



### Sector Insight

Aberdeen's Sector Insights provide strategic perspective and analysis of primary research results by industry, market segment, or geography

### Sector Definition

This Insight is focused on third-party logistics services providers (3PLs) whose offerings include warehousing services.

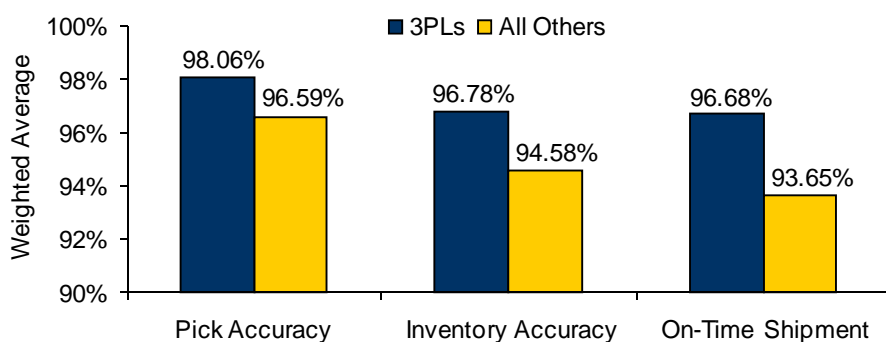
Source: Aberdeen Group, December 2009

In the face of these pressures, 3PLs have two main goals: improving the efficiency of their own operations (76%) and increasing the value-added services they can offer to their clients (31%). Of course, these goals are interrelated: improved efficiency frees resources to be put to more productive use. When picking and put-away can be accomplished more quickly, warehouse staff will have time for activities such as kitting and light assembly. For 3PLs not looking to add services, efficiency allows them to complete their required work with fewer resources -- directly addressing the dominant cost pressure.

### The Starting Point

In this discussion, there are two important perspectives: first, the 3PLs themselves looking to better their own performance, and; second, companies with self-run operations interested in what outsourcing may offer for their benefit. As illustrated in Figure 2, below, the 3PL respondents to Aberdeen's recent survey outpace their peers across multiple quality-related measures. As discussed in [On-Time and Under Budget: Maximizing Profits with Efficient Warehouse Management](#), accuracy improvements can yield benefits on the cost-side, with reductions in the overall cost associated with rectifying errors. In addition to the differences in these quality measures, 3PLs also report lower costs to remedy errors than their peers (\$8.52 vs. \$12.19 for picking errors; \$40.42 vs. \$49.46 for shipping errors, on average). It is the combination of these results that illustrates the value proposition for 3PL services: the promise of on-time, accurate fulfillment for clients, and a lower cost of operation for the 3PL itself.

**Figure 2: Performance Gaps - 3PLs vs. Others**



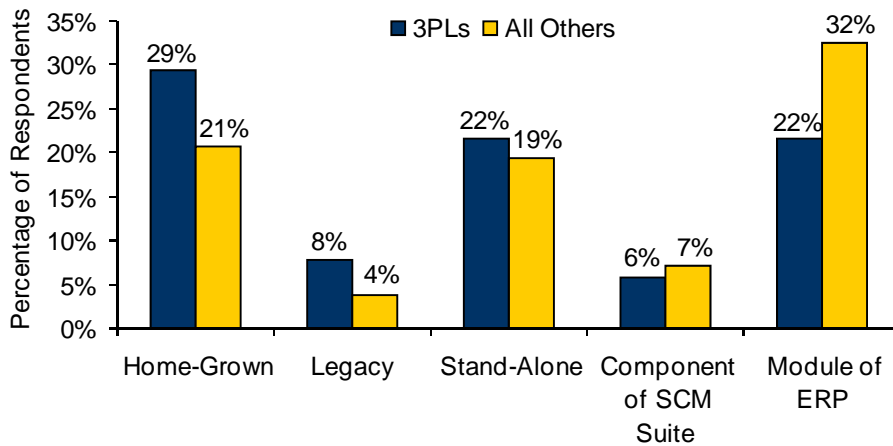
Source: Aberdeen Group, December 2009

### Current Technology and Future Plans: The Software Side

Moving from the results they achieve, we next look to which technologies 3PLs are employing -- and which they view as key to future improvements. The first step is the foundational element: the warehouse management system. Figure 3, below, presents the diversity of solution types currently being used by the 3PL respondents. Overall, the distribution is quite similar

to their self-run peers. Along with legacy systems and SCM Suite components, the use of solely spreadsheets among all respondents (2% for 3PLs, 5% for others) pales as compared to the leading software types. With the importance of client-specific value-added services and the added functionality required to support billing functions, it is not surprising to see customizable solutions at the top of the list.

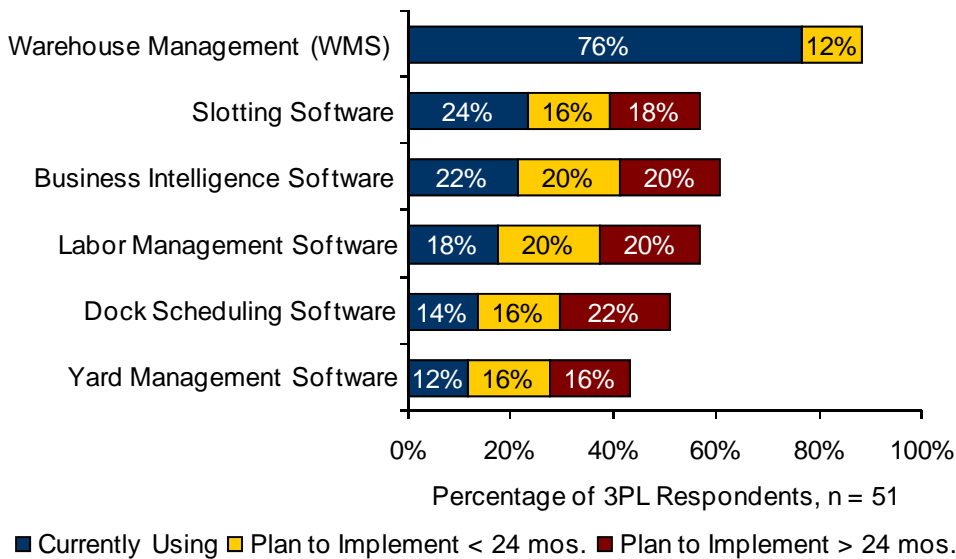
**Figure 3: Warehouse Management Software Profile**



Source: Aberdeen Group, December 2009

Looking toward future improvements for 3PLs specifically, Figure 4 provides a view of both the current adoption and future plans for a range of solutions. Comparing these priorities to their self-run peers, the relative popularity of each is quite similar. What is interesting, though, is a matter of scale: 3PL respondents report higher levels of planned adoption across the spectrum of available technologies. Focusing on a few examples, both BI and Slotting applications leverage data analysis to support the intelligent design of warehousing operations, and both show a 10% or greater difference in planned adoption between the groups. With respondents noting an average labor cost of 35% of total warehousing expenses, the implementation of labor management solutions is directly aligned with the pressure to reduce operating expenses. For this technology, 3PLs and others show identical current adoption, but a 15% gap in planned future adoption (39% vs. 24% overall). Together, this paints a picture of aggressive performance improvement initiatives for recent 3PL respondents, which may ultimately benefit not only their bottom-lines, but also those of the clients they serve.

**Figure 4: Current Software Adoption and Future Plans for 3PLs**



Source: Aberdeen Group, December 2009

With the previous discussion as a background, we focus on the experiences of three LSPs, with operations around the globe.

## North America: NYK Logistics

### Company Background

NYK Logistics is a logistics service provider operating approximately 40 North American locations throughout the United States and Mexico. Within that group are seven general warehouses which they operate and run themselves, six warehouses dedicated to reverse logistics for a large consumer goods retailer, and an additional five facilities in which they lease space for other customers.

In addition to general warehousing, NYK is heavily focused on transloading services, which enable the efficient transition of shipments from one mode to another. “This year alone, we will handle well over 100,000 transloading containers both on the East and West Coast,” says Donald Meewes, Chief Information Officer of NYK. “This is turning out to be a fairly popular segment of our business. Many imports are coming in and retailers are looking for ways to reduce their supply chain costs. Since capacity has gone down, and steamship lines are charging more to bring containers inland, there is more pressure to have more volume transloaded into domestic trailers to be brought inland.”

### Previous Systems and the Move to WM9

The breadth of services and locations resulted in a complex portfolio of solutions that NYK needed to manage. They were running Provia for general warehousing with a custom-built piece of software to handle

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NYK Logistics

transloading (TLS) that was designed with only a single customer, and single facility, in mind. Across the locations, they had multiple instances of the TLS, one international variation, and two separate warehousing applications.

“One of the issues we had with the older software was that it was never designed as an enterprise system – but we were running it that way,” says Meewes. What NYK needed was to find a common solution for all facilities, able to cover both warehousing and transloading, supporting heavy integration via EDI with customers’ ERP and yard management solutions.

An opportunity for change was introduced when on-boarding a new client. “We did a benchmarking and looked at what it would take to put it all together in one system, including modifications,” says Meewes. “We met with Infor, and they showed us what the product could do. We brought in the GMs of our warehouses, and went through it for two weeks to see what it would take to modify the system to work for their business.” NYK chose WM9 for the new installation because existing facilities could be easily transitioned from Provia, and they could also make the needed code changes to create a competitive transloading offering.

“In transloading, speed is everything and real-time information is extremely important,” according to Meewes. “We need to know where everything is, tracked at the PO-level. We need to know when it goes to DCs to know when it will get to stores – and we also need to update the underlying ERP system quite frequently.” In their old system, information was manually keyed-in – and incorrect information would halt data transmission. Customers wouldn’t get updates, and they would need to work backwards to track down what had happened. “In the new warehouse system, all of that is eliminated,” says Meewes. “It’s more efficient for us, it is better for our customers, and it helps differentiate us from our competitors.”

In the new solution, information sharing is system-wide, enabling NYK to track business from overseas all the way to the port, to the warehouse, into domestic trailers, through allocation, and via domestic transport to DCs. In fact, the system itself can extend out to NYK’s customers, allowing regulated access to shipment status, location, and other important information. “In 2001-2002, if you could provide visibility, that was leading edge. Within two years, it was the new standard and everyone provided it,” says Meewes. “Now visibility needs to be simple and easy to look at. What customers are really asking for is the ability to interact. If you’re going to give me a portal, I want to be able to do something with it.”

## **Results and Future Plans**

NYK has gone live with Infor WM9 in two facilities, and will have a third facility up and running shortly. In addition to greater stability and lower maintenance cost, the new system has been a great benefit to NYK in the area of customer on-boarding. Both the time and cost of getting a new customer up and running on the system have been significantly reduced. On the old system, implementing with a new customer would take a minimum of 90 days. “After six months to get WM9 up and running, we brought our first customer online in 60 days,” says Meewes. “Now we can get a

customer up and running in five weeks. This has given us the ability to take on new customers as fast as possible by streamlining ramp-up time.” With all of the new business slated to be brought on-board, NYK is estimating payback in less than 21 months. “The sooner we get this implemented, the better off we are.”

## Europe: BettR Logistics

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### Setting the Stage

BettR Logistics is a part of the Transuniverse Group, a Belgium-based global logistics and transportation provider offering warehousing, expedition, and 4PL services. For a number of years, BettR had been engaged with a grocery client operating dry goods facilities in Belgium, France, and Germany. In mid-2008, the client faced a dilemma: the lease on one of its facilities would expire, and operations would need to be relocated. BettR stepped in with a potential solution.

Beginning with a case study to demonstrate their plan’s value, BettR proposed a scenario where they would combine all three facilities’ operations into one newly-constructed location. BettR would take on all of the client’s personnel, managing their entire logistics flow from inbound through warehousing and shipping, including all of the related activities, including necessary re-labeling and re-packaging. For the customer, “their entire cost would not be any more than they were spending at that point in time at their own warehouses,” according to Piet Lips, General Manager, BettR Logistics. The facility offers double the capacity required by the client, and as other customers are brought on, the economies of scale will allow all parties to lower costs by spreading overhead – saving money for everyone involved.

### Systems Selection and Implementation

BettR Logistics had three requirements for their prospective software vendor: 1) the system must be fool-proof, helping to both prevent errors and alert workers when they occur; 2) the system must allow for paper-assisted activities, providing a transition from manual processes to complete RF-based automation, and; 3) the system must be able to accommodate these needs without customization. Beginning with a field of 12 providers, BettR pared down the list based on a review of each solution’s look and feel. This left three potential providers, including Infor and two smaller local outfits. The ultimate decision was based on two main factors: the breadth of available solutions in Infor’s portfolio, and past experience working with resource-constrained providers when problems were encountered. “We want to have more integration with our customers, and we can’t do that with a custom-built system,” says Lips.

After selection, Lips, along with his warehouse supervision and an IT staffer sat down with Infor to map out a transition plan. Infor’s representative proposed a step-by-step process for picking operations, the group decided which master data must be shared (size per product, volume, items per

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carton, cartons per layer, layers per pallet, etc.), and then proceeded with system set-up. In one week, everything was set to go. They next called in key users to share with them the workings of the new system, and to vet its usability. They introduced users to the new RF devices in the months leading up to the transition, and conducted testing the week before going live. “The WM9 implementation was very smooth,” according to Lips. If it weren’t for the required integrations with their customers systems, he believes the entire process could have been completed in a matter of months. As part of those integrations, BettR provides full visibility to their clients regarding order processing status. Lips explains, “We receive instructions via EDI, and confirm receipt, allocate stock, and send a response back to the client. The moment we start a pick, they see it in their system. When it goes out, they raise an invoice automatically in their system.”

### **Progress and Future Plans**

Within three weeks of implementation, BettR had progressed through the paper-to-electronic learning curve and equaled the productivity levels in place prior to the move. “The potential with the WM9 system is huge,” says Lips. Moving forward, he is looking to utilize RF for management oversight rather than only for execution-related activities, to eliminate paper-based operations altogether, and to add labor planning capabilities with the future integration of Infor’s MyDay solution.

BettR is also planning to expand WM9 to cover additional clients – and locations. The first step is to add new clients into the existing install, and then to branch out to additional warehouses. Plans include expansion to another general warehousing facility, with similar operations to the pilot site, a dangerous goods facility subject to regulatory requirements, and a mixed-use facility covering both client-based and public storage, which requires handling a variety of goods – not only those they are accustomed to receiving.

## **Asia-Pacific: Cargohaus**

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### **Background**

Cargohaus provides third-party warehousing services, concentrated on temporary storage of inbound shipments through customs processing and release. Cargohaus’s sister company, Air21, is the exclusive FedEx licensee in the Philippines and its international shipments account for 80% of Cargohaus’ total volume. Handling over 1,000 inbound packages per day, the company’s activities support the daily operations of most of the semiconductor and electronics manufacturers in the country’s economic zones.

In the past, Cargohaus’ productivity was hampered by their technology infrastructure. “We came from an environment with separate inventory and management systems,” says Tere Eisma, Head of Information Technology. “We weren’t using RF scanners, so everything was done via keyboard. It

was very tedious.” The difficulties were compounded by the challenge of interfacing with the Bureau of Customs’ (BoC) computer systems. “We had to do a lot of customization,” says Eisma. “It was not an easy task. There were lots of interfaces, and we had to put in three separate servers, though it was a single application to talk to the BoC.”

### **The Move to Infor**

Two years ago, Cargohaus began to implement Infor’s WM9 at their Manila facility. The six-month roll-out was a welcome surprise, following a previous two-year project putting in place an ERP system. WM9 is leveraged to manage the inventory of goods stored in the warehouse, ensuring that the goods are monitored and cleared according to the BoC’s regulations. In addition to generating management and inventory reports, Cargohaus has customized WM9 to directly interface with the BoC’s new system to receive online release instructions. Clearance permissions can be checked against goods’ status in the database, and confirmations can be sent once cleared goods are released.

The systems upgrade has allowed Cargohaus to provide better service to its customers. “We are mostly dealing with just-in-time shipments,” says Eisma. From the time an aircraft lands at the airport, the shipments must be delivered to the consignees within four hours. Cargohaus receives, stores, and clears the shipment for handover to its sister company Air21 and to other Customs brokers at the earliest time possible to meet the 4-hour deadline. These speeds are achievable with the Infor system thanks to its support for cross-docking functionality. With customizations by Infor, Cargohaus has also incorporated automatic notifications right after an RF scan during ship-out, keeping customers up-to-date when shipments have been released. On top of these notifications, Cargohaus also provides an online tracking system through its website that interacts directly with the Infor production server to provide additional visibility to their customers.

### **Results and Future Outlook**

In addition to the qualitative benefits above, Cargohaus has seen quantifiable changes as well. With the introduction of RF scanners (unsupported in their old system), and integration of ASNs from FedEx, Cargohaus is able to scan packages as soon as they arrive at the warehouse. “Receiving time has been lowered from 1 hour to 30 minutes, and we have also cut down processing time,” says Eisma.

In their previous system, their view of inventory accuracy was itself not very accurate. Now they have achieved a much improved inventory accuracy of over 98%. “Before, we had a lot of shortcuts because the system would allow it,” according to Eisma. “Now the validation controls are in place. Because of these controls, movement on the warehouse floor is guided by the system, and our procedures are aligned with the system – this forces us to do things on the operating plan we put in place.”

Cargohaus has implemented Infor’s WM9 in three locations to date: their main facility in Manila, as well as others in Cebu City and Laguna. They plan

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to bring Air21 on-board this year, and have also targeted two additional warehouses for implementation. They are also in the process of testing their Infor-based interface to the Bureau of Customs' new Online Release System. Once completed, Cargohaus is on track to be the first warehouse in the area to be certified for integration by the BoC.

## **Solution Snapshot**

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As part of a large software portfolio, Infor's Warehouse Management (WM) solution addresses a wide array of warehouse activities, from basic pick-pack-and-ship through advanced functions such as cross-docking, slotting, and labor management. The solution is geared not only toward traditional manufacturing and distribution operations, but it is also aimed to fill the needs of logistics service providers.

## **Key Takeaways**

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The experiences of NYK, BettR, and Cargohaus can be quite instructive for traditional warehousing operations and 3PLs alike. Their stories highlight the importance of viewing the entire system into which a WMS will be placed, to identify how to best integrate with both internal applications (in the case of ERP, TMS, etc.) as well as with external parties, whether they be trading partners of governmental agencies with specialized functions. For companies interested in potentially outsourcing their warehousing functions, these 3PLs offer good examples of how process expertise and scalability can help to provide improved performance, better collaboration, and increased visibility into operations.

For more information on this or other research topics, please visit [www.aberdeen.com](http://www.aberdeen.com).

Related Research	
<p><a href="#"><u>On-Time and Under Budget: Maximizing Profits with Efficient Warehouse Management</u></a>; December 2009</p> <p><a href="#"><u>Warehouse Operations: Increase Responsiveness through Automation</u></a>; July 2009</p>	<p><a href="#"><u>Five Key Steps to Optimizing Warehouse Management</u></a>; February 2009</p> <p><a href="#"><u>Distribution Center Strategies for Today's Economy: Managing Growth Without Adding Labor or Space</u></a>; November 2008</p>
<p><b>Authors: Bob Heaney, Senior Research Analyst, Supply Chain Management (<a href="mailto:bob.heaney@aberdeen.com">bob.heaney@aberdeen.com</a>);</b>  <b>Scott Pezza, Research Associate, Supply Chain Management (<a href="mailto:scott.pezza@aberdeen.com">scott.pezza@aberdeen.com</a>)</b></p>	

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