

Logistics

Management & Distribution Report

Virtual distribution

Sun converts its 3PL to an information provider



*Warren White, Sun Microsystems'
director of supply chain
management for the Americas*

In the Internet age, Sun Microsystems Inc. has taken its parts distribution into the virtual realm. The Palo Alto, Calif.-based computer maker last year closed two parts-distribution centers run by its third-party logistics (3PL) company. To replace the functions provided by those DCs, it then had the same 3PL take over management of an information network that tied its suppliers and 100-plus remote stocking locations together to improve customer after-sales support. "Today, the 3PL is transmitting demand information from the person who needs the parts and transporting that information to the person who has the parts," says Warren White, Sun's director of supply chain management for the Americas.

Sun's decision to make its American parts distribution a virtual process stems from a corporate policy to shift non-core functions to outsiders so it can remain agile in an era of rapid change. In recent years, the company has become adept at managing the outsourcing process, which gives it a competitive advantage in the fast-changing computer

try's key players, Sun reported about \$15.7 billion in annual revenues in its last fiscal year.

By now, the company is a veteran outsourcer where logistics services are concerned, having retained USCO Logistics of Naugatuck, Conn., back in 1992 to manage two distribution centers and a call center to provide after-sales parts support in the United States and Canada. Sun supports 40,000 to 50,000 computer servers in the United States alone. It typically ships out parts such as monitors, disk and tape products, cables, and printed circuit boards to customers or to field service representatives, who perform the customer repairs.

Three and a half years ago, Sun began reviewing the effectiveness of its customer support and supplier network—areas that are crucial to Sun's operations. "As a supplier of Internet products, Sun must ensure that its servers are up 24/7. We have to make sure that the eBays don't go down," says Butch Holmberg, Sun's director of e-business development and alliances. "We wanted to

From 3PL to 3PI

market. "People struggle with outsourcing," White notes. "We learned very early on to describe what you want—what's the expectation of the process, or the system, or the transaction—and find [the people] who [are] the best at it and let them do the job. And let them know when their [performance] is not meeting expectations."

Although it has turned over its logistics operations and the related information technology to an outsider, Sun has maintained control of the supply chain process. For one thing, it has set clearly defined expectations for that third-party provider. It also makes sure those expectations are met through a combination of process measurements and regular performance reviews. As a result of those tight controls, who handles the actual delivery becomes immaterial, says White. "From our customers' perspective, Sun is delivering the parts and they don't mind that the delivery is accomplished through others. The customers just want the parts delivered on time to [meet] their expectations with the appropriate quality level in the right quantity."

Veteran Outsourcer

Nineteen-year-old Sun Microsystems Inc. provides computer hardware, software, and services for computer networking and the Internet. One of the computer indus-

Sun converted its distribution partner from a third-party logistics provider to a third-party provider of information, saving millions of dollars in the process.

By James A. Cooke, Senior Technology Editor

look at how we connected with suppliers via [Web] browsers, and we wanted to make sure that our dot-com clients had product support."

Better service and lower costs were at the heart of Sun's decision to switch USCO's role from warehouse and distribution management to information management. But it was not a decision that was made lightly. "When USCO gave up their core business, the handling of materials and

Sun Microsystems, *continued*

the stocking of materials, they went from a physical to an information distribution process. That was a big change for them," says White. In addition, USCO had to invest in the software to manage the network and to ensure inventory visibility.

Answering the Call

At present, a Sun customer who needs a part contacts the computer manufacturer via a toll-free phone number. "Customers call in," says White, "and [we determine whether] they will have to pay for time and material or are entitled to a part under a warranty or a service contract."

Once Sun authorizes the repair, the order for the needed parts is created in USCO's system and transmitted via the Internet to the most appropriate parts source. Basing its decision on the type of customer order and the proximity of the inventory to a particular customer, USCO will arrange for the parts to be shipped either from the manufacturer or from a repair supplier's remote stocking location. Sun contracts for facilities used as remote stocking locations, which are typically local storage places managed by couriers. USCO, however, directs the remote stocking locations or parts manufacturer to fill the orders. "USCO manages the relationships [with] the people who do it," White says.

How quickly USCO must get the part out depends on the customer. In

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some cases parts must be shipped within an hour. In other instances, the supplier or parts depot must ship on the next flight out, within two hours, on the same day, or the next day. USCO supervises the courier that Sun has selected to handle the parts delivery.

The parts order, fulfillment, and delivery processes are tracked using a rules-based exception management system referred to as Sun's air traffic control system. USCO's computer systems feed transaction information directly into that system, which is set up to focus on exceptions, such as cases in which time requirements will not be met. "The air traffic control system is Web based and gives the user visibility into how well transactions are being processed," explains White.

By all accounts, the system is working well so far. Prior to its transformation into an information network manager, USCO shipped 580,000 Sun parts in 1999 from the two distribution centers it operated. This past year, in 2000, USCO oversaw the shipment of 671,000 parts from suppliers and repair centers.

In fact, the creation of a virtual logistics network has not only improved customer service but has also saved Sun Microsystems money. Because it now ships direct from suppliers in

many instances, it's eliminated the expense of inbound transportation to its two distribution centers as well as outbound shipments. "All of the transactions—or what we call the "touchpoints"—associated with the distribution center are now removed. The overall savings to the company have run to the multimillion dollar level," says White.

Performance Guarantees

Although Sun has turned over management of its parts supply chain to an outsider, it has by no means given up control over what it likes to call "Sun's Logistics Virtual Network." In fact, the company has taken a number of steps to ensure that its 3PL does its job, such as establishing performance metrics, holding quality management reviews, filling out scorecards, and setting up strategic meetings between Sun and USCO executives.

To begin with, Sun measures USCO's performance the same way it measures its own and its suppliers' performance in the overall supply chain. To do this, a separate Sun unit, the Americas Customer Advocacy Function, uses three metrics to determine the customer's satisfaction level, as follows:

- The first measure, the Customer Quality Index (CQI), is an internal measure that establishes a certain level of time expectations for each transaction in the process, such as creating an order, picking a part, or delivering a part. It then tracks whether the time expectations for those transactions were met on a weekly and a monthly basis.

- The second measure is a customer survey that an independent company conducts after a service engagement. Those surveys, which are handled either over the phone or via e-mail, allow Sun's customers to explain their perception of the service,



Sun Microsystems, continued

White reports. “In these interviews, he adds, “the customer has the ability to raise a corrective action request for a process failure.”

• A third measure, the Customer Loyalty Index (CLI), focuses on the customer as an account—in keeping with what Sun calls the relational side of its business. Sun itself conducts face-to-face or e-mail interviews with the manager who controls the overall account. The survey takes a broad look at the customer’s satisfaction level. According to White, typical questions include: Are you pleased with the service from

summarized on a quarterly basis and we use a scorecard process by which we communicate our perception of performance.”

Sun gives USCO a scorecard each quarter. The scorecard rates the third party on four criteria: fiscal management, quality, availability, and strategic and technical development. *Fiscal management* examines the third party’s costs in comparison with other suppliers’. *Quality* looks at the quality of the service USCO is providing. *Availability* examines the 3PL’s record on inventory accuracy and order fill rates. The fourth criterion, *strategic and technical development*, measures USCO’s ability to perform capacity and system manage-

and development meeting” with its third party. White says that meeting focuses on future business directions. “You look out a year, two years, and ask, What kind of changes in technology do you see? What are our strengths, our weaknesses, opportunities, and threats?” Apart from that strategic meeting, Sun also reviews its contract with USCO annually to ensure that the list of contractual responsibilities makes sense in view of changing business conditions.

A Mutual Stake in Success

Although Sun has a contractual relationship with USCO, it views the third-party provider as its supply

Sun Microsystems Inc.’s Supplier Scorecard

	Criteria	Definition	
Cost	Service Costs	Supplier meets target price of service. (Target = the number of transactions for which supplier should hit the Sun cost target)	<input type="checkbox"/>
	Cost Reductions	Supplier actively works to reduce product price quarter over quarter. (Target = percentage of unit price improvement expected over previous quarter)	<input type="checkbox"/>
Quality	Reports	The supplier provides regular reports as required by Sun. (Target = the number of reports required in this quarter)	<input type="checkbox"/>
	Process Improvements	Initiatives and performance measures to be defined jointly by supplier and Sun.	<input type="checkbox"/>
Availability	Invoice Process Compliance	Ability to invoice Sun for service in an accurate and timely manner.	<input type="checkbox"/>
	Customer Satisfaction	Evaluation of a service purchased by Sun by the customers of said service.	<input type="checkbox"/>
	Handling/Routing	Excess, shortage, or wrong delivery of services, parts, or products.	<input type="checkbox"/>
Technical Development	On-Time Delivery	Shipments that are defined as late per Service Level Agreement.	<input type="checkbox"/>
	Program Management	Supplier provides effective program management.	<input type="checkbox"/>
	Technology Development	Supplier develops technology that will meet Sun’s process evolutions.	<input type="checkbox"/>
	System	A disruption in information system communications due to supplier’s system.	<input type="checkbox"/>

The sample scorecard shown above illustrates the method Sun uses to rate suppliers such as its third-party logistics provider. Source: Sun Microsystems Inc.

Sun? Are you getting the right service level? Are you likely to recommend Sun? Are you likely to repurchase from Sun?

Sun distills information from those three measures, paying close attention to the customer’s comments. If a particular issue arises that requires immediate attention, Sun contacts USCO to resolve the problem.

In addition to these measures, Sun has a contract with USCO that defines its performance expectations. “Those tasks and responsibilities are managed through a variety of metrics and performance measures,” says White. “Performance measures are

ment. (See the sample scorecard.)

Key personnel from both Sun and USCO attend quarterly management reviews at which the parties look over the scorecard findings and talk about action plans to take performance to another level, White reports. Sun then keep tabs on the proposed corrective actions. “All those action plans and commitments are tracked and recorded and managed through our quality management system,” says White, “and the process repeats itself on a quarterly basis.”

In addition to the quarterly reviews, Sun holds a yearly strategic get-together called a “joint application

chain partner. “It’s a partnership not in a legal sense, but in the relational sense,” says White. “We both have investments at stake here. Sun’s order-taking systems are tied to USCO’s systems.”

Sun’s management believes that outsourcing its parts distribution operation will keep the computer maker nimble in these dynamic times. “With the Internet these days, change is happening very quickly. What was good three years ago may not necessarily be good tomorrow,” White says. “You want a fluid relationship with a third party, but one with trust and commitment.”