

SUPPLY

as

STRATEGY

Lucent Technologies wrings strategic advantages out of how it buys, embedding supply chain management deep into development to build the virtual company.
by Janet Kreiling

“There’s a defining moment that companies go through,” says Jose Mejia, chief supply officer at Lucent Technologies, Murray Hill, N.J. “What comes out of that defining moment is a faster, leaner, stronger company.”

It’s happening now at Lucent, he adds, just as it has at Apple, Chrysler, IBM, WalMart, and many other companies. And the transformation places a special importance on Mejia’s part of the business: When the company announced its fourth quarter earnings, Lucent CFO Deborah Hopkins named “improving supply chain management” a key initiative in the company’s drive to “sharpen our execution, reduce complexities, and increase efficiencies.”

“When I look at the changes Lucent

is making,” says Mejia, “I tell my team that we are critically important to them. We have a significant piece of what the new Lucent is all about. We touch every part of the business.”

The old term for Mejia’s job, procurement, hardly describes his mandate. Brought into Lucent in 1999 and named head of what is now called its Supply Network Solutions (SNS) organization in April, 2000, he is charged with making procurement and supplier management, particularly of direct goods, a strategic agent in the company’s reinvention of itself.

Supply as strategy

In seeing supply as strategy, says Joe Williams, account executive at Ariba,

“What we’re doing is a process of thinking, of engaging, that is different.”

—Jose Mejia, chief supply officer, Lucent Technologies



Lucent is at the head of a trend in the telecom industry, which is itself at the head of a trend across industry in general. Especially in telecom and computers, he says, “sourcing for direct goods is much more interactive with all phases of a company’s business, particularly product development. It’s becoming a dynamic process both within and outside of companies.”

In addition, he points out, the warlike competition among telecom vendors for sales of wireless, optical, and other products forces them “to provide more and get less for it. The only way to survive is to do business more efficiently, and that means eCommerce, because tight linkages between supplier and customer depend on eCommerce.” High tech companies are early adopters: “They’re more ready to embrace the Internet as part of their sourcing process.”

The virtual company

In an effort less than a year old, SNS has made supply an integral part of product development to the extent of “having taken a look at very critical products of ours in optical and wireless, engaged with our partners, and convinced internal organizations of what we can provide,” Mejia says.

One early success: SNS helped eliminate one of a pair of mother-daughter circuit boards in a particular product, reducing costs significantly. In two cases of this kind, Mejia says his organization has helped reduce product costs by 35 to 40 percent.

Mejia intends for SNS to go far beyond consulting on already-designed products. The organization’s knowledge of components offered by suppliers, he points out, can identify devices from other companies that could be advantageously incorporated into products early on.

“We’re helping drive the way we partner with players on the outside to create solutions and products a lot faster than before,” he says. “We can help Lucent

leverage what somebody else has faster than any of our competitors. What we’re doing is not just about looking at a component and asking ‘How can I develop my own answer?’ It’s about saying ‘We’ve got a solution to provide to the customer – does anybody else out there have something that can help us provide that solution quickly?’”

To know its suppliers’ offerings that intimately, and to manage component availability, Mejia envisions Lucent pulling its suppliers into a virtual company: “a network of companies which come together as partners to deliver solutions to customers.” SNS’s job is to manage that network as one company.

Last April, Lucent announced a move to outsource more of its manufacturing to contract manufacturers, making the virtual company a necessity. As then CEO and chairman Richard McGinn said, “Today there are companies whose sole business is manufacturing sophisticated electronics equipment. They can provide us with the high-quality products and flexibility we need to increase our speed to market and improve our cash flow.”

Lucent will concentrate on areas where its expertise would be hard to duplicate, such as R&D, systems integration, customer support, network design, consulting, installation, and high-end process manufacturing.

McGinn also shone a hard, bright light on the company’s expectations for supply chain management: “We estimate that we can improve cash flow from operations significantly over the next few years, mainly through reductions in inventory and reduced capital expenditure.”

Building the eBusiness

It’s already clear that on-line communications are key to managing relationships with contract manufacturers. Beyond that, the role of eCommerce in building a virtual company is “still evolving and still in its

Buying the eWay (Easy and Electronic)

At the other end of the business, where Lucent is the supplier, the company also has a strong eBusiness effort. Its iBUY website was set up in late 1998 with the goal of selling even complex routers and switches, according to Mary Whelan, eBusiness vice president at Lucent. Currently, the site enables more than 5,000 people from 100 companies to buy more than 8,000 products on-line.

“We’ve evolved from a small site focused on North America with a small subset of products to one that handles a much broader set of products” she says. “We’ve also evolved a strategy for how we approach the customers on the web, bringing the tight, intimate relationship that Lucent has with a given customer in the real world, into the web environment by making it very personalized and focused on the customer. The web experience is also very holistic in that it supports the customer straight through from pre-sales to post-sale service and support.”

Although the site is beginning to sell to drop-in buyers, most sales are in fulfillment of already-signed contracts. After Lucent wins a contract, customers place orders against the contract over iBUY.

Since any given contract can entail very complex systems with a variety of configurations, the site is designed to make complicated ordering easy. Lucent put a lot of effort into configurators that walk people through the options available under their contracts, Whelan explains. “The configurators are very popular with customers.” In addition, the site forces people to make the right choices. “Essentially, it won’t let you order a roof rack with a convertible,” she points out.

infancy – but huge,” Mejia says.

SNS’s plan for using eCommerce looks at all the organization’s areas of responsibility to identify “the key hot-button things we’ve got to get done through ‘e’ – meaning a complete elimination of paperwork, regular systems, and [adoption of] web-enabled systems and very open standards,” he adds.

To help create vibrant worldwide eCommerce for itself and other high tech companies, Lucent has joined ventures such as RosettaNet, a nonprofit consortium dedicated to the development of standard electronic business interfaces; e2open.com, a global computer, electronics, and telecom business-to-business e-marketplace; and Alliente, Inc., a spin-off of Hewlett-Packard that provides a wide range of supply management and procurement services. The first two alliances will aid Lucent in management of direct items, those that are used in products, and the latter in the supply of indirect items, those not used in products.

Last fall, Lucent announced that it had fulfilled its commitment as a board member of the RosettaNet eBusiness Standards group to implement at least one of the standardized Partner Interface Processes (PIPs) by October 10, 2000.

PIPs “are a way of collaborating with key partners in the semiconductor and electronics industries,” Mejia explains. They employ “XML-based dialogs critical to aligning business processes in the supply chain. Our product designers send a web query and immediately receive product-specific technical and business information, including data on reliability and life cycles.”

Companies such as Arrow Electronics, Hewlett-Packard, United Technologies, and IBM also announced implementation of various PIPs by the deadline, along with creative ways for using their open standards. ChipData, for example, announced pilot projects of PIP 2A9 with Lucent and IBM, in which the company’s software will deliver information from component suppliers over the web, rather than on paper, and in a consistent format.

Creating marketplaces

Lucent is also a founding member of e2open.com. Like other founders, it’s helping create the e2open mar-

marketplace, which will offer services including reference databases for electronic parts, auctions, requests for quotations or bids, fulfillment and logistics planning, and design collaboration. The e2open marketplace is based in part on Ariba's B2B Commerce Platform and Ariba Dynamic Trade, along with technology from IBM and i2; it is being built and hosted by IBM's Global Services.

At press time, e2open's goal was to have thousands of companies collaborating by the end of the year 2000. Together its founders spend many hundreds of millions of dollars in the electronic industry's supply chain, so the marketplace was poised to open with considerable clout.

Lucent plans to leverage the e2open.com marketplace as it develops an integrated approach to supplier management with its contract manufacturers. "e2open is about creating and launching and learning to use tools that provide one way of communicating among all of us," Mejia says. "Lucent needs to be a leader in this area."

Leading the way

In fact, the company is already a leader. By the end of this year, it expects to have acquired some 80 percent of the direct and 100 percent of the indirect goods and services it purchases each year through electronic marketplaces such as e2open. "We're further ahead than our competitors," Mejia says. "No one else has launched all of these eCommerce efforts."

With the eCommerce marketplaces and interfaces now available, early adopters in industry are already sharing information on product characteristics, pricing, availability – even writing contracts automatically on-line. But Ariba's Williams foresees far more information exchange going on-line, particularly among high tech companies. He believes these companies will participate in "collaborative commerce," an intensive sharing of information that creates true just-in-time manufacturing. This "Dell model on steroids" goes beyond present-day eCommerce to tight links between purchaser and supplier all the way through design and development.

Ultimately, Williams says, companies will exchange not only design specs and other technical information electronically, but also demand forecasts so that electronics suppliers can plan for exactly how many of a

Buying the eWay ...

Secure, specific, searchable

Users from a given company see only the models available under its own contracts. "It's very secure," Whelan says. "You don't need to worry about buying a model intended for another customer."

In addition, the information presented about products can be tailored to individuals within a client company. Someone from Marketing gets marketing features; an engineer, technical specs. When queried, the site offers contextual searches that turn up appropriate items, so the user doesn't need to know the product name or number. It'll also present a range of solutions through its solution finder – the user just enters a topic such as "last mile access." After the order is entered, users can track an order, whether made through iBUY or a sales team.

"Customers love that," Whelan says. And the customer can choose from a variety of B2B links to the site, including a direct link with its own purchasing software. Among other benefits, items don't need to be keyed in twice.

"Lucent is using its leading edge technology to create as reliable, trustworthy, and comprehensively supportive an experience as people have with our people in the face-to-face world," Whelan says.

The number of registrations at iBUY is taking off, she adds. There's outside recognition as well. Last year, with the aim of defining best practices in Internet marketing and sales, the American Productivity and Quality Center identified seven benchmark companies as having strong Internet strategies in place. Lucent was one, along with Sun Microsystems, Cisco Systems, Charles Schwab & Co., Dell Computer Corporation, Eastman Kodak, and W.W. Grainger. Good company.

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given amplifier or chip set will be needed across an industry, for example. Of course, companies have always shared forecasts with their top suppliers, but manually and infrequently – by fax or by sending an e-mail with an attached file, maybe once a month or twice a year.

eCommerce will make it automatic. In the future, information on future system and component needs – how many radio base stations or miles of fiber optic cable, together with the number of amplifiers needed, will be sold next quarter, or how many air interface line

task of managing the supply chain for strategically important direct products.

Alexander Caraballo, business development manager for Alliente, identifies outsourcing of electronic procurement as a clear trend as companies realize it's not a core competency and, therefore, one they can hand over to others – and save money by doing so.

Alliente uses the Ariba Commerce Services Network (ACSN) platform and services, Ariba Buyer and other Ariba solutions. Mejia calls it “probably the best launch of the Ariba platform.” Alliente, he adds, fuses its own expertise in using eCommerce tools and systems with Lucent's expertise, brought by staff members from SNS, in managing and leveraging the supply base for indirect purchases. (As a cornerstone customer, Lucent transferred 60 employees with extensive procurement and travel service

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cards will be needed next week – will be automatically sent weekly or even daily. And not just to one or two suppliers, but to many. Moreover, each supplier will collect and collate information from many customers, so it will know very precisely how many of a given amplifier or chip set it will need to make by July 15, September 20, or whatever planning date it chooses. “It takes,” Williams says, “a certain amount of trust, but it will be the only way to do business.”

With such accurate demand information, suppliers will be able to build to order. They won't underbuild; they won't have to overbuild and then “hold a fire sale for hundreds or thousands of leftover chips when a new generation comes in,” Williams says.

eBuying desks, pens, software

The virtual company for delivering solutions is only one aspect of Lucent's drive to eSupply. The procurement of indirect goods is also moving to the Internet. This is where Lucent's partnership with Alliente comes in: It's a way to shave dollars off the cost of airplane tickets and pennies off the price of pens. In the telecom industry's cutthroat competition, even pennies saved are crucial. In addition, outsourcing indirect purchasing frees Mejia and his staff to concentrate on the crucial

experience to Alliente.) “We created a company that is truly going to be a power in the eCommerce industry. It's a company that has meat.”

Take travel, he says. The SNS people who have gone to Alliente “know the industry, they understand the players. Some of them even come from the travel industry. They know how airlines do cost structures, pricing. We're doing more than just creating a solution. We're changing the way business gets done.”

One example he cites: Lucent has traditionally negotiated deep volume discounts. But now, with the records automatically generated by Alliente, the company will be able to tell if, say, a lot of employees begin traveling between Dallas and Atlanta. It can use the data to negotiate a better price with a preferred carrier, in exchange for directing this traffic to it.

In addition to travel, Alliente will handle procurement of goods, such as office supplies, shrink-wrapped computer software and peripherals, power and energy supplies, etc., using the Ariba Commerce Platform as a backbone for a range of eCommerce services, Caraballo says.

The services are designed to funnel purchases to preferred suppliers, he adds, wringing the maximum benefit from discounts by making it easier to buy indirect items on-line than to run out for a software package or

computer accessory on one's lunch hour. And it certainly beats the reason people do that in the first place – the aggravation of filling out a requisition and then arranging for purchase.

For more complex purchases the process remains easy. Alliente's eCommerce systems can present whole catalogs or, using Ariba's "punch-out" feature, take a user directly to a website established by the vendor. Punch-outs are handy for items like software, where the price may change weekly, so up-do-date listings are more easily managed by the vendor itself. "Why should we recreate their sites, when they've already developed great ones, that also integrate with Ariba?" Caraballo asks.

After the user places an order, the Alliente systems can track its progress through approval and, if needed, pass along notes – "Jim, I really have to have this by Tuesday!" – and then track order delivery.

Change of attitude

Mejia emphasizes that using supply as a strategic

weapon calls for a change of attitude. "What we're doing is a process of thinking, of engaging, that is different," he says, giving a very low tech example. "There's a great restaurant near my home, and they make a great key lime pie. I called one afternoon, wanting to pick up dessert for dinner – we were having guests. I said to Mary, who owns the place, 'I need to pick up a key lime pie.' She said, 'You have to order that in advance. I don't have one to sell you.' I said, 'Mary, how many pieces are in a pie?' She said, 'Six.' I said, 'Mary, can you sell me six pieces of pie?'"

He was delighted, as always, with the pie, and he's delighted with what he's seen already at Lucent. Although supply management is "not a product, this is a significant weapon we're launching to pull us out of where we are today.

"And we're seeing some beautiful results." 

Janet Kreiling is a Dexter, Mich.-based business writer covering major developments in telecommunications and data networking.

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