

C A S E

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A D I S S E C T I O N



Learning to Love [Lock-in]



BY DEBORAH GAGE AND LARRY BARRETT

You want to simplify your life. The more software you can get from one company, the better. But you'd better be prepared to manage your vendor. Or, as **Mehrdad Laghaeian** found, the next 13 months of your life may be your most stressful.

PHOTOGRAPHY BY NITIN VADUKUL

OSRAM BASE CASE

CASE 013 A DISSECTION

Organization: Osram Sylvania**Headquarters:** Danvers, Mass.**Phone:** (978) 777-1900**Business:** Osram Sylvania is one of the three largest manufacturers of lamps and lighting fixtures in North America**Size:** Osram Sylvania has seven manufacturing plants throughout North America, producing annual sales of close to \$2 billion**CIO:** Mehrdad Laghaeian, vice president of information technologies**Challenges:** Install SAP's customer relationship management software for its general lighting business. Build an online catalog and ordering system for distributors and retailers. Improve use of enterprise planning software**Baseline Goals:**

- ▶ Increase share of market, from 25% of North American lighting product business
- ▶ Sell higher margin products, improving gross margin from 33 cents on the dollar
- ▶ Achieve 10% return on investment in e-business software
- ▶ Improve accuracy of invoices by 50%

Paul Byrne was not sure how his pitch would play. The SAP account executive wanted deeply to keep Osram Sylvania as a client for SAP's enterprise software. But Osram, one of the three largest manufacturers of lamps, bulbs and lighting equipment in North America, was threatening to bolt.

The Internet had arrived and Osram wanted to extend its business electronically, taking orders over the Web from its 3,000 distributors on the continent.

Osram had decided it would have to use another vendor, such as market leader Siebel Systems, to manage its relationships with customers online. Or it would temporarily develop a solution on its own. It almost was an open-and-shut case to Mehrdad Laghaeian, vice president of information technologies and chief information officer at Osram. Quite simply, SAP—oft-criticized for being late to adopt Internet technologies—had no product in this arena. Osram had to go elsewhere.

Byrne could not change SAP's product lineup, but he was not about to give up so easily. He had Laghaeian give a call to Kevin McKay, at the time the chief executive of SAP America. Not long after, Laghaeian and other executives from the two firms gathered around a long, sunlit conference room on the second floor of Osram's headquarters in Danvers, Mass.

Their attention was focused on a presentation from Peter Lorenz, a product development manager in Germany. He proceeded to give Laghaeian and Osram's technology staff a look at a project under way in Walldorf, Germany, where SAP is based. The development work centered around a product titled simply, at the time, Internet Sales.

The rest of the world now knows the product as the Customer Relationship Management piece of mySAP.com, a panoply of computer programs for conducting business between businesses over the Web. But, on this spring day in 1999, Lorenz had no product to present. Just slides.

Laghaeian, who had spent a year helping develop an e-business strategy for Osram, would have a tough recommendation for Osram's business managers to work through. He could lock himself more into SAP's embrace—in effect

betting his company's electronic business future on its German partner—or pursue a safer strategy that lessened its dependence on one supplier of its enterprise software needs.

Other companies report similar quandaries about how to manage their increasing dependencies on single software companies whose growing portfolios of products underpin their most fundamental processes. Carreker Corp., a supplier of consulting and software to banks, for instance, is in the midst of restructuring its business processes because it is finding it easier to conform to PeopleSoft software, than change it (page 38); Odwalla has found the best way to get what it needs to manage its energy juice manufacturing business is not to scream at its primary enterprise business software vendor, Oracle, but to promote its partner in public and get free training and consulting in return (page 39); and, payroll processor ADP has taken a tough-love stance with IBM, putting Big Blue's software team on a rigorous development tracking system it calls the Train; it also makes a point of airing any difficulties at least twice a month (page 40). And where Life Time Fitness found its exercise club and health food business constricted by its reliance on Microsoft software, JetBlue Airways embraced Microsoft software as a key means of achieving a cost advantage as a discounter (pp. 46 and 47).

But Laghaeian faced an immediate, practical dilemma: Did he go with a product already on the market, even though that would be fraught with the technical difficulty of making it work smoothly with the SAP data and programs that Osram already had in place? Did he buy time by developing a homegrown answer and hope that vendors would catch up? Or did he go through a year of living fretfully, trying to co-develop a product with SAP that met the German software supplier's needs to support a wide range of other businesses with the product, and, along the way, try to fine-tune

THE OSRAM PLAYER ROSTER

Mehrdad Laghaeian CIO, Osram Sylvania



Role: Responsible for all information technology projects undertaken within Osram Sylvania. Became involved with

bringing SAP software to Osram when he joined the company in 1994.

Henny Peters

EVP, GM, General Lighting division, Osram Sylvania

Role: Responsible for all electronic commerce initiatives for lighting products within Osram Sylvania.

Wil Backes

**Ex-CFO
Osram Sylvania**

Role: Approved financial support for mySylvania.com installation. Served as the leader of executive steering committee that developed and monitored e-business strategy and SAP installations for Osram Sylvania.

Alan Weiss

VP, GM, electronic control systems, Osram Sylvania



Role: Spearheaded internal adoption of SAP projects within individual business units.

Greg Schmidt

**VP, e-business systems, logistics, distribution
Osram Sylvania**

Role: Responsible for managing and improving manufacturing logistics and product distribution within Osram Sylvania's General Lighting division.

Rick Wilson

**E-business Manager
Osram Sylvania**

Role: Responsible for identifying and adding new groups of users for Osram's e-business technology.

Jeff Ruck

**Web development manager,
Osram Sylvania**

Role: Served as lead manager of mySylvania.com installation. Responsible for guiding Osram's sales force and customers through the installation.

Paul Byrne

**Senior Account
Representative, SAP**

Role: Responsible for generating sales from new customers and finding new revenue streams from within current customer base. Byrne has overall account responsibility for Osram Sylvania in North America.

James Mossey

**Technical Lead, Osram
e-business project, SAP**

Role: Responsible for coordinating integration between the design of business process and the technical systems that support them. Also designed and implemented a simplified sign-on procedure for doing business electronically with

Osram, that incorporated various SAP systems and capabilities.

E.J. Kenney

VP, Consumer Products, SAP



Role: Responsible for providing resources support and tailoring the SAP development of customer management software to Osram Sylvania's business strategy.

**Barbara Althoff-Simon
Global manager, CRM, SAP**

Role: Responsible for managing, delivering and deploying SAP's customer relationship management resources for the Osram installation. Also addressed the technical concerns of Osram's management team.

Questions for any of these players can be directed to baseline@ziffdavis.com; and, they will be forwarded.

it to meet Osram's needs, as well?

"Where do I go?" asked Laghaeian. Because if he went elsewhere, he would have to "introduce a new interface, and that means two vendors—as one upgrades, the other does not." Sticking just with SAP is good "because they're so big everyone wants to connect to them, but even so, the connection is something everybody has to wait for."

Besides, the data that ran Osram's business—its manufacturing and accounting systems, its sales and product plans—was tied up in SAP's flagship suite of enterprise planning software known as R/3. And that was not going to change.

Osram had adopted SAP in August 1994. That was about a year and a half after Osram GmbH, a German company, had bought the Sylvania lighting and precision materials businesses from Texas-based GTE Corp., a telecommunications company, for \$1.1 billion. At the time, using enterprise-wide software on a combination of desktop and server computers was considered the cutting edge of corporate technology. Osram was nearly finished with its R/3 deployment.

The deployment had started in corporate finance and worked its way through Osram Sylvania's biggest division, General Lighting. The software was being used to give the new owners a firm grip on how the North American assets were performing, financially. But chief executive Dean Langford also wanted an "internal supply chain" to improve the efficiency of the company, which did everything from creating the glass and chemicals that went into light assemblies, to the bulbs and ballasts themselves.

Indeed, Osram Sylvania had used the rollout of R/3 to completely reorganize and flatten the structure of its information technology department. At one time, Laghaeian was almost under siege. He alone had 30 direct reports, meaning he "ran like crazy" from cubicle to cubicle and meeting to meeting, to keep on top of the deployment. He worked routinely until 8 p.m. at night and lost weight because of the de-

mands of hands-on management of the deployment of routers, servers, hubs and network cabling over the span of the \$70 million, five-year project.

SAP, meanwhile, also was under the gun. By the end of 1999, it had sued Siebel Systems, the company that had largely created the Customer Relationship Management software category, for "predatory hiring practices aimed at SAP," as its rival hired away 27 of its employees. The hires included two former presidents of SAP America, Paul Wahl and Jeremy Coote. By the end of 2000, SAP also started a program to resell some customer management software—instead of developing its own—from call-center supplier Clarify, a unit of Nortel. But it later backed off.

With that much pressure on SAP, Osram figured it would have some leverage on its vendor. Both Osram and SAP had to succeed in the marketplace. So Laghaeian decided to back a product he had never seen—with the understanding that if SAP couldn't deliver, Osram would walk away without financial sacrifice.

"[McKay] told us, 'Whatever it takes, we'll make it right,'" says Laghaeian.

In the end, Osram decided to bet its e-business strategy on Lorenz's slideware, and the period that would follow would be what Laghaeian now calls the most stressful 13 months of his life.

"Is this the project that [was] going to kill me?" he would ask himself. "I don't know. Let's find out."

Osram was betting its online future not merely on a product not yet proven in the marketplace, but one that was not yet even created. Really, though, Laghaeian and crew were betting on the capabilities of its long-time provider of enterprise software. And the sense that it was better off managing a vendor it knew well, SAP, than learning to manage a relationship with a new one. Besides, other CRM vendors did not focus on what Osram said it really wanted: to man-

BASE TECHNOLOGIES

Osram Sylvania built on a long-standing relationship with SAP to create a portal and personalized product catalog for conducting business electronically with distributors and retailers.

Software	Product	Vendor
Financial reporting; Sales management; Distribution management; Materials management; Production planning; Manufacturing flow control	SAP R/3	SAP
Sales forecasting Distribution logistics	MTP, DDM, DPEE	Manugistics
Human Resources Management Payroll Processing	PeopleSoft HRMS	PeopleSoft
Relational Database	Oracle 8	Oracle
Sales and inventory analysis	Business Intelligence Suite	Cognos
Employee intranet; Electronic document management; Travel and expense reporting; Benefits enrollment in HR; Job postings	Lotus Notes, Lotus Domino	IBM
Customer interaction (mySylvania.com portal)	mySAP Customer Relationship Management	SAP
Document management (within mySylvania.com)	Panagon product line	FileNet
Pricing, product catalog	SAP Markets Enterprise Buyer	SAP
Product development	mySAP Product Lifecycle Management	SAP
Purchase order routing (using XML) Data extraction Order reception	Microsoft BizTalk Server 2000	Microsoft
Hardware:	Product	Vendor
Data Processing	Alpha servers	Compaq Computer
Data storage	StorageWorks (Storage Area Network)	Compaq

SOURCE: OSRAM SYLVANIA

age its chain of suppliers, integrate internal and external communications, and serve customers better online.

So Osram wrapped itself more tightly into the arms of SAP. It's a decision many chief information officers and project leaders are making, as they find themselves tackling ever-more complex software and information systems deployments.

In the post dot-com era, when e-business is about the heavy lifting of integrating your business and your technology with suppliers and partners and customers whom you may not even know, and where returns on that work are uncertain, betting heavily on a single vendor may be the least painful option—so long as you can muster enough resources to manage a vendor that may be several times your size, and still get day-to-day business done.

"It's easier to manage a small number of strategic relationships than a large number of random relationships," says John Swainson, General Manager of IBM's Software Application and Integration Middleware division. "Customers have discovered that being a systems integrator is expensive."

In Osram's case, that commitment meant reordering itself to focus more on the needs of its customers and partners and less on the internal demands created by its ERP system.

Contrary to the popular notion that locking your company into the embrace of one enterprise vendor limits options, technology managers at the companies sampled here, including Carreker, Odwalla, ADP, JetBlue and others, say it makes meeting corporate objectives simpler.

"Life becomes more complex if you have more pieces," Laghaian of Osram says. He trained as an electrical engineer and found that, when designing machines, reliability goes down as the number of components goes up.

"It's like the space shuttle. So I always had that in mind," he says, "to design with as few pieces as possible. It's the same thing" in deploying large information systems.

WHAT WOULD E-BUSINESS BE WORTH?

Osram's decision came as it confronted the promise and peril of the Internet.

Osram Sylvania makes almost \$2 billion worth of light bulbs, ballasts, and other lighting equipment a year. But it operates in an industry where margins are modest, about six or seven cents on the dollar, after taxes. Even small efficiencies in Osram's supply chain could gain precious dollars on the bottom line and share points in the never-ending battle against Philips Lighting and General Electric for a piece of a market that grows about 3% to 5% a year.

While Philips was investing in the dot-com www.lighting.com and GE was building its own elaborate public Web site, the managers on Osram's newly formed e-business committee weren't sure exactly how to proceed in 1998 and 1999. Osram didn't sell to consumers, and its rivals did—but Langford and his managers knew Osram had better do something.

Every day, Osram employees were gathering competitive intelligence on f__company.com, the Web site where disgruntled employees of high-tech companies unburdened their secrets.

Had any dot-com company gone out of business that day selling lightbulbs online? How many online sites were acting as portals for information about the lighting industry and planned to ask Osram to contribute—for a fee? How many

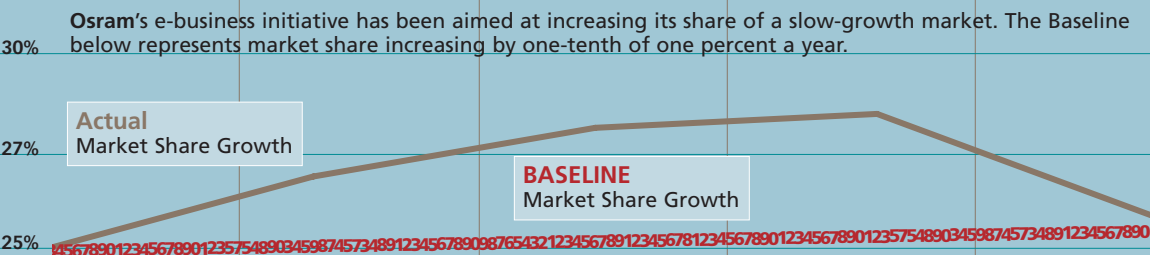
OSRAM SYLVANIA MANAGES A RELATIONSHIP WITH SAP TO MEET LONG-TERM GOALS

Case Dissection 013

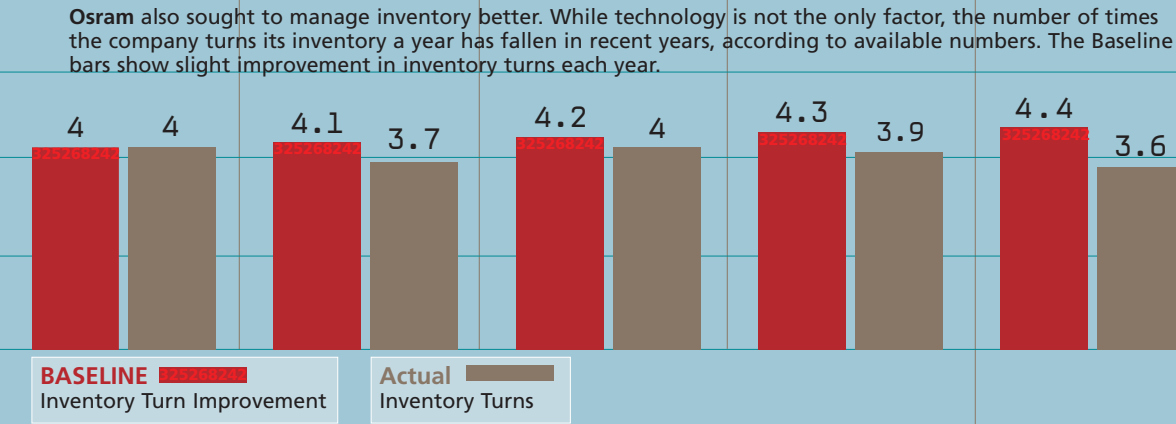
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- ▶ **Corporate site,** www.sylvania.com, celebrates first anniversary.
- ▶ **Osram launches** employee intranet, delivering information from SAP R/3 and a PeopleSoft human resources package through a browser
- ▶ **Rollout of SAP R/3** software to all Osram divisions continues.
- ▶ **Osram creates** senior management team to develop e-business strategy.
- ▶ **Osram launches** online catalog (not connected to SAP), to provide product information to customers.
- ▶ **Catalog integrated** into redesigned www.sylvania.com.
- ▶ **Osram's Executive Committee** funds plan to pursue business online.
- ▶ **Osram informs SAP** it must look elsewhere for suitable software to manage its relationships with its customers online.
- ▶ **SAP describes** its plans for new online customer software
- ▶ **Osram decides** to co-develop software with SAP.
- ▶ **Sylvania works** through two versions of mySAP CRM.
- ▶ **www.mysylvania.com debuts** at SAP SAPHIRE users show.
- ▶ **Osram delays** debut of www.mysylvania.com for additional testing.
- ▶ **Osram's parent, Siemens AG, initiates** plan to spend 1 billion euros on e-business development.
- ▶ **Osram expands** catalog content on www.mysylvania.com to include architects and others who specify product purchases.
- ▶ **Osram formally licenses** mySAP.com from SAP.

OBJECTIVE: Increase market share vs. General Electric and Philips



OBJECTIVE: Move product faster



SOURCES: U.S. BUREAU OF CENSUS, OSRAM SYLVANIA, BASELINE ESTIMATES

proposed to make money through online marketplaces that delivered Osram's customers to Osram's competitors?

"These guys were threats ... and you had to be prepared," says Rick Wilson, Osram's e-business manager. "Some guy in China is spending 15 hours a day selling lightbulbs, goes home ... gets up the next day, and does it all over again. The competitiveness of the industry is very difficult."

But going directly to the consumer made no sense to Laghaecian. "How were we going to make money selling lightbulbs that cost a buck each, and then spending four to five dollars to ship breakable items?"

Two-and-a-half years later, Osram Sylvania has an elaborate online catalog and a more efficient tool to process orders coming primarily from a recurring customer base—

customers can check orders, pricing contracts, and product availability on pages targeted to them; architects and others who specify products have page views as well. But the success of Osram's CRM software is hard to track.

Osram's North American sales—which are almost exactly half of its worldwide sales—improved only 4% from fiscal 1999-2000 to fiscal 2000-01. That meant an increase from \$1.92 billion to \$2 billion. In the previous four fiscal years—without CRM—Osram Sylvania's sales had improved by more than 10% a year on average.

In the same period, gross profit margins inched up 1 cent to 31 cents on the dollar, meaning the North American operation's profit after taxes, as best as can be estimated, essentially were flat at \$115 million one year, \$114.5 million the

NARROW SCOPE: CARREKER CHANGES ITSELF TO MANAGE PEOPLESOFT

CARREKER—a \$110.3-million-a-year provider of software and consulting to banks—bought software around which it could organize itself. The company found that the best way to manage that choice was to change itself, not its software or its vendor.

The keys to accomplishing that feat: Narrowing the scope of what it was trying to do and changing some of its own business processes to meet the needs of the software.

The company agreed to install PeopleSoft8—including Human Resources, Financials, Customer Relationship Management, and Enterprise Services Automation—on the condition that the software, out of the box, could handle at least 80% of its needs.

Then it began changing its own business processes, many of which were manual, to accommodate PeopleSoft. Expense reports, for example, would no longer be passed from employee to employee; they would be entered into the system once and be available online.

"I and several people on my team have been through these [projects] before," says senior vice president Lori Faris. "We said, 'What's the alternative?'"

"When workflows are nonexistent and done manually, don't customize; narrow the scope and use the tool" on hand.

Faris says she and several of her team members learned big-company project-management techniques in previous jobs at Electronic Data Systems; other team members brought similar experiences from working at IBM.

So far, she says, the key to meeting deadlines and budgets at Carreker has been the team's ability to define precisely what happens if PeopleSoft can't be used out of the box: which workflows are affected and which applications must be customized. It's also had to set a schedule for making those changes and track them against the original plan. HR software was brought up in 50 days, an employee portal in six weeks.

"We don't have every bell and whistle, but we're adding them as needed," Faris says.

Carreker works with PeopleSoft development and PeopleSoft Consulting, which itself uses PeopleSoft8. The three-way interplay helps managers within Carreker sort out which of their business processes are so unique or critical that they justify customizing the software.

Hany Soliman, director of mid-market consulting for PeopleSoft, says Carreker senior management examines all exceptions—such as who has authority to approve expense accounts—to the processes provided by PeopleSoft.

"When you're implementing PeopleSoft, it could be a 20-year commitment," he says. "It has to involve senior management visionaries within the corporation to think how they want the product to look in several years."

Many more customers are trying to avoid customizations now than they were two years ago, Soliman says, but he adds that the level of involvement of Carreker's senior management is still unusual. He says the 80-20 rule that Carreker insisted on is PeopleSoft's goal, but it can't be achieved by all customers.

"I think in the past it was always whatever the end-user



wanted," Soliman says. "We tried to make recommendations, but often the end-user would win. We've now learned it's more of a joint effort to determine what's crucial and what's not."

Carreker began implementing PeopleSoft software in November 2000,

and the companies meet once a week at least. Each side sends a project manager, along with product leads who represent elements of the implementation such as financial, technical, HR, and eCenter (PeopleSoft's hosting center), and they bring in other employees as needed.

On Carreker's side, Soliman says, the product leads are high-level employees such as the controller or the human resources vice president. These are decision-makers who can give immediate direction on how the project should be planned, how resources should be allocated, how other employees can be persuaded to lend their support.

Yet Faris broke one cardinal rule of project management: She didn't establish hard-and-fast development deadlines at the outset. Instead, she assigned seasons for completing phases of the PeopleSoft project.

"I don't give them a date until I have enough documentation and buy-in from everybody," she says. "Once you set a date, that's what you have to live with."

Team members—be they from Carreker or PeopleSoft—also strive not to blame others when something goes wrong but to focus instead on communicating clearly and directly while keeping their emotions in check.

That attitude helped Carreker work through a difficult decision: whether to handle payroll in-house or job it out.

Carreker had been using an outside service, but bringing it in-house would help PeopleSoft8 work better.

"Outsourcing payroll would have required several interfaces to be developed which could complicate system maintenance and future upgrades as well as impact real-time features of the system," Soliman says.

Moving Carreker's business processes to the Web has saved hundreds of hours per month in employees' time, but Faris' big challenge still is getting people to change their ways and feel comfortable using the new software. Carreker employees go through "change management" courses 20 people at a time to learn PeopleSoft; power users get special training.

In effect, Carreker is managing PeopleSoft by managing itself in new ways. But if PeopleSoft did not respond to its narrowed scope of requests and requirements, Faris would not hesitate to address the issue.

"We know [PeopleSoft CEO] Craig Conway; we know we can escalate to the top," says Faris. "We haven't had to do it yet."

—D. G.

next year. But even this flatness was a disappointment after a four-year run that saw Osram's estimated profit after taxes storm up 57%, jumping from \$72.6 million in fiscal 1996-97 to \$115 million in fiscal 1999-00.

Laghacian and company had hoped the new emphasis on communicating with customers electronically would help it boost sales online, improve its sales efficiency and even get product through warehouses more effectively.

In a high-volume, low-margin business such as selling lightbulbs, the only thing worse than not selling the bulbs is having to warehouse and "maintain" the merchandise for months or years on end.

Its estimated inventory on hand increased to \$385.4 million in fiscal 2001 from \$356 million in 2000, up 8%. Sales in North America, by contrast, were essentially flat, at \$2 billion.

"Managing inventory makes everyone happy," Greg Schmidt, vice president of e-business systems, logistics and

distribution for Osram, said. "We did what we do best. We set a plan and we stayed on plan. That's what you get from a good German company."

But, even if the deployment stayed on track, it didn't guarantee an uptick in orders. By February 2002, more than 10,000 registered users were logging on to mySylvania.com to access Osram's catalog, check on a particular product's availability, or simply check the status of their orders. That was a testament to the benefits of electronic ordering—but not the choice of the eXtensible Markup Language as the means of formatting data to exchange electronically. To date, Laghacian says, "still a very low percentage" of the company's customers have adopted XML as the underlying means of tagging data for exchanging with Osram.

Nonetheless, for the estimated \$5 million Osram spent on mySAP applications and the installation (software, hardware and man-hours combined), the company appears to

PROMOTE YOUR VENDOR: ODWALLA PLUGS ORACLE TO GET ITS WAY

OSTENSIBLY, companies develop "co-marketing" programs in order to promote themselves to the outside world.

But for Gary Hensley, director of information technology at Odwalla, a maker of high-energy juices and snack bars in Half Moon Bay, Calif., the biggest benefit to participating in the "e-leaders" campaign started by Oracle is to get the ear of Oracle itself.

"It turned out to be a hook deep inside the company that helps us get resources when we need them," says Hensley.

For instance, if Hensley helps facilitate a Web forum or teleconference, or moderate a panel at a trade show such as Oracle OpenWorld, Odwalla earns points, much like an airline frequent-flyer program. As the credits build up, Odwalla can use them to get additional hours of consulting or training from Oracle.

And because the request comes from an e-leader that Oracle is trying to showcase, it carries more weight and prompts a faster response.

Otherwise, Odwalla is left to use more conventional means of getting what it wants from Oracle, such as paying for Oracle consultants to fix bugs that surface in an early version of Oracle's Web-enabled business software, known as Oracle 11i. Odwalla has used Oracle as its vendor of enterprise planning software, using financial, purchasing, data warehousing, Internet procurement and self-service expense software from the company known best for popularizing the relational database.

Taking on the risk of installing an early version of a new generation of software this way gets costly: Hensley figures a new release increases deployment costs from 20% - 25%. To keep costs down and projects on track, Hensley and his team interview Oracle consultants before they start work. The company doesn't pay for work done by consultants who don't survive a trial period. Odwalla also insists on having a "dedicated customer-care representative" placed on site to work through problems as needed.

But the list of Oracle e-leaders is not as exclusive as it used to be. When Pam Truswell took over last year as Oracle's vice president of service and operations, that roster was limited to 200 companies.

That made no sense to her. Asked why there was a limit, she says, "You got me. I think someone drove in to work one day and said 200 was a good number."

Now the program has morphed into a "global customer reference" program for companies with well-known names and global reputations that are using a broad range of Oracle applications. Customers such as Odwalla, who fit that bill, can get free use of video footage when Oracle sends in a camera crew to shoot a testimonial; a company may even get a \$100,000 study from Bain & Co. that shows exactly how it is generating a return on its investment in Oracle software.

But even e-leaders must stay alert, in case Oracle's changes don't go their way. Gevity HR, a \$2.7 billion provider of human resources services for small and medium businesses, got Oracle to add features it needed for CRM. Senior VP Lisa Harris says Gevity is retaining more customers with Oracle's new



software, but she wonders whether her company will lose negotiating power with Oracle as more customers buy Oracle's integration story and start using Oracle applications.

Harris says Gevity has many inroads into Oracle and works hard to attend Oracle conferences and catch the attention of Oracle executives—she remembers once cornering ex-president Ray Lane.

"We'd say, 'We purchased your CRM product, it's do-

ing well, there are some enhancements I'd like to personally tell you about.' Most times, it takes 15 minutes. Most times, they enjoy hearing from customers."

Indeed, Hensley says there's no secret formula for getting a vendor to either respond to immediate technical problems or allow for needs in future releases of software. Calling direct is still the best way to protect your interests with a vendor.

"There's no magic out there with any vendor. You have to act as an advocate of your company," he says. "I've spent a lot of energy managing the interests of our company" with vendors.

In fact, sometimes the best way to manage one's vendor is not to deal directly with the vendor at all.

Odwalla is also dependent on Novell and its NetWare operating system and related software to maintain a network of 350 users across 30 locations, coast to coast. Over the past seven years, Odwalla has never turned to Novell for basic assistance; it's turned to Dynamic Networking Systems of Benecia, Calif., for first- and second-level support.

This was a consulting firm recommended by Novell; and in a future go-round, Hensley might conduct an independent comparison of possible support suppliers. But having a third party can be a better way of managing support, than managing your vendor. While Hensley has had only one "point of contact" with Oracle in the past year, turnover at Novell has meant three points of contact in the same period.

Soon, though, Hensley might not be able to choose which vendor to try to manage. In December, Odwalla was acquired by the Coca-Cola Co. For now, it is part of the Minute Maid juice division, which also relies on Novell. But long term, that may change: Coca-Cola itself uses Microsoft network operating software and Lotus Notes, not Novell NetWare and GroupWise.

Before Coke came into the picture, managing his vendors was critical because the costs of switching—at about \$10,000 per user—were too high for a medium-sized company to consider. Now, if Coke requires a switch, Hensley expects his new parent to pick up the tab.

—D. G. AND TOM STEINERT-THRELKELD

have achieved one overall tangible goal—increase its share of the North American lighting market, to 25.7%, from 25.2% in 1997. But the share had flirted with 27% in between.

Less directly, the system has allowed salespeople to focus increasingly on sales, reducing the amount of time they spend on administrative activities to about 15% of their day.

Osram officials say CRM has improved other facets of their day-to-day operations, namely a more efficient and accurate invoicing system, and that Web sales are increasing 73.4% per month. But these improvements have yet to show meaningful improvement of the bottom line. Profits in North America, as estimated by *Baseline*, have held steady at approximately \$115 million each of the past two years.

But even getting this far has not been so simple. Because Osram's business and IT staff had to manage not just their own interests, but those of their enterprise software vendor, SAP.

In fact, when it came to choosing how to proceed into e-business, Osram's business and information technology departments

were not even united on whether to go forward with SAP.

For technology managers, it was simpler and cheaper to keep working with the vendor whose software already held its production data. Indeed, not to do so might have endangered what Laghaeian considers the company's architectural principles.

"The source of your data is always in one place. You never replicate the data—you don't have two owners of a piece of data. You work like crazy not to have interfaces. Interfaces are inherently a partnership between two vendors that don't work with each other. To me, partnerships are problematic," he said.

But some of Sylvania's business executives had a different view. "We thought long and hard about making this commitment to one vendor," Schmidt says, because locking oneself into another big project with an enterprisewide vendor increases a company's dependency on that vendor.

In this case, SAP was not even delivering a product it had already built. Laghaeian's e-business strategy would be de-

TOUGH LOVE: ADP FORCES IBM TO SPECIFY EVERYTHING

IN THE BASEMENT of Automatic Data Processing's labs in Roseland, N.J., server farms pound on IBM's WebSphere application server. Even on weekends, when VP of Internet and client/server development Yen-Ping Shan would go to supervise, the payroll-processing company's servers and the machines throwing transactions at those servers are humming. This creates what Shan calls "the weird impression of super-human beings sitting in front of the machines," driving the user interfaces and pumping screens to the server very fast.

Before ADP chose WebSphere as its platform for developing Internet applications, the software survived and passed 25,000 tests administered by these servers.

However, IBM General Manager John Swainson notes, IBM "can never rest." Because every time IBM sends ADP an interim release of WebSphere, the servers test it: How many transactions can it handle before it breaks? Does it have bugs?

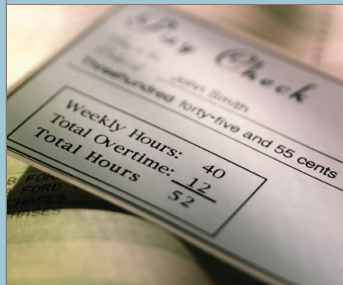
"We have too many clients doing too much important business. We can't afford to rely on the vendors' tests [alone]," says Shan, who notes that his division, Employer Services, serves 100,000 companies and that vendors' interim releases sometimes create more problems than they solve.

Indeed, ADP's tests are the foundation of what Shan calls the Train methodology, keeping everyone associated with ADP's software development—including IBM—on track.

Interim software releases from IBM and other vendors are treated as train passengers and tested before ADP relies on them to develop applications; new software features developed by ADP are tested to see if they're robust enough to be delivered to customers. Train methodology has the additional advantage of keeping ADP on track; business and technology executives argue less about whether marketers have sold more online services than the technical staff can develop, and weekly sales rates are easier to monitor.

Swainson claims that Shan called him to solicit IBM's business because Shan was dissatisfied with the performance of software from IBM's rival, BEA Systems. Shan declines to discuss this, saying ADP is "constantly on the lookout for the best technology provider" and that he appreciates IBM's scalability, security and service. BEA did not respond to requests for comment.

ADP is also learning how to write code the Internet way. It is rewriting its software in Java and migrating it to run on WebSphere; it plans to offer payroll services over the Internet that it has delivered previously to customers on compact disks. Customers can receive services from any browser, and ADP should be able to create new services faster because Java is



able to write code that can be executed on any type of computer.

But Java is not for beginners. Swainson says large customers like ADP that are "trying to write a new generation of mission-critical applications" require hand-holding. Shan agrees. Configuring two servers is easy, he says, but the challenge of configuring 15 ma-

chines in two hours to handle an automatic software update is much easier with help from consultants such as IBM's.

Indeed, Swainson says, 30% to 40% of IBM's software customers have grown so tired of coping with the complexities of creating new code that they're now spending enough money with IBM to be considered "strategic customers," such as ADP.

Swainson, for instance, is ADP's designated IBM executive. He says his role is to serve as "a safety valve" should something go wrong.

Every two weeks, Swainson briefs Shan on plans from IBM's development lab and its software group. Shan in turn can influence the design of IBM's products. Currently, he is monitoring how IBM's labs are adapting WebSphere to host IBM.com.

Shan says ADP will accept nothing less than "an executive-level" relationship with a vendor. "When things are not getting done, you have a line into their organization if they need help reminding them that this is critical. Most vendors understand," he says.

IBM keeps both salespeople and technical people on-site at ADP. In addition, IBM Global Services helped ADP develop a documented process for moving new software from development to quality assurance to hosting on an all-IBM hardware/software stack in one of ADP's data centers.

"If something goes wrong in deploying an app, we fix it," Swainson says.

"We don't point fingers at them, we don't turn the clock on, we just get there and show them, 'here's how to build a good J2EE app.' We end up providing them with a huge amount of support, because at the end of the day, our goal is to sell products as a result of making customers successful, and if we do that they'll buy a lot more. And if we don't do that, bad news travels fast." —D. G.

pendent on the creation by an outside vendor of a wholly new software product. And software projects, where new code is written, tested and debugged, have a long history of defying development deadlines.

Adds Wilson, "When we first considered whether or not to use SAP for CRM, my initial feeling was that we shouldn't, mainly because it's a very complicated software. The business guys will say, 'Yes, we considered other options and vendors.' The tech guys will tell you there was no choice all along."

Laghaeian attributes the nervousness among business managers to their need to fully understand where Osram was headed. After all, SAP had no product. Just slides. "It was 13 months of intangible something," he remembers. "CRM—what is it? The package isn't here yet."

The business processes were not well-defined because the users that help define them, he said, "are thinking of them as

we speak."

Which is why Laghaeian went through 13 months of stress, trying to get SAP to a constantly redefined

goal line. "[We were dealing with] technologies that were not in place, standards that were not in place, and an IT environment that has never been truly 24x7, but one Sunday [someone was] going to put in an order for a very important something and that's the day you're not around," says Laghaeian. "I knew where I was going, I just didn't know how to get there, (because) it hadn't been done."

Despite Laghaeian's predisposition toward SAP, there were issues that Osram considered deal-breakers. In particular, Osram developers insisted that SAP support LDAP, the Lightweight Directory Access Protocol, which was emerging as a key Internet security standard and which Osram deemed superior to a similar SAP offering. "Even if you [SAP] know best, it will hurt me in the future ... you're not controlling the Internet," Laghaeian would say.

THE YEAR OF LIVING FRETFULLY

Osram's 13 months of stress began in the fall of 1999, when SAP moved a team of about a dozen managers into Osram's offices. Laghaeian began racing "in a blur" to manage the SAP project managers, developers from SAP in the Americas, and developers back at SAP's headquarters in

PROJECT PLANNER
HERE'S HOW TO GET
STARTED ON YOUR OWN
COOPERATIVE SECURE
NETWORK (SEE FOLDOUT).

Germany. Oh, and Laghaeian had to abstract and execute the interests of Osram's business executives, who were nervous about the uncertain outcome of the project, as well as reassure his own technology crew, which had to make sure the software would allow the company to productively interact with its customers online.

Osram was on a tight schedule. SAP wanted to introduce mySAP CRM, of which Internet Sales became a part, at a users' conference in June 2000. Osram hoped to introduce the mySylvania.com portal built on the new SAP software to its customers two months later.

Laghaeian had already been through one intense SAP implementation. In installing R/3 at Osram, he would talk Digital Equipment into getting its latest server running just in time to catch up with the soaring need inside the company to manage data and services.

But Osram did not then work alongside SAP. Laghaeian and the Osram senior technology management would have cordial meetings twice a year with Coote, then president of

SAP America, and would present formal status reports on how the R/3 installation was going. "They were interested in our project and they wanted it to be successful," says Laghaeian. "Even then, this was a big account and a big implementation."

This time around was different. With help from Byrne, SAP built a core team of 10 to 12 of its people—project managers and developers—inside Osram. SAP also drew on the expertise of its staff in both the US and Germany.

"There were more people involved in the beginning, but we wanted overkill," says Byrne, who has worked with Osram for four years. "We had to get bodies on-site."

Issues that could not be handled by the SAP team at Osram were escalated to SAP development. Osram, meanwhile, sent a team of its own developers to SAP in Walldorf to learn the software with developers there. Osram was helping SAP add some of the functionality to R/3 that would ultimately support mySAP CRM, so that when Osram received the final product the following May, it

GOTCHA! CREATING A PORTAL FOR ENTERPRISE APPLICATIONS

Did you know that:

? Networks that work well serving data to desktop computers from internal servers may slow to a crawl with the use of applications based on the Web

Less processing on the users' PCs means more demand on network servers and on the network itself. More processing requests, more data being transferred. When PeopleSoft rolled out PeopleSoft8 internally, adjustments had to be made to network infrastructure. "Within the firewall, compared to the client/server architecture, there is more traffic—you're going to the server more, so there is more traffic," says Ram Gupta, executive vice president of products and technology at PeopleSoft. Application performance is tied to your network's bandwidth and throughput as much as processing power. To reduce that dependency, PeopleSoft and other vendors are trying to deliver more code down to the desktop, through use of dynamic HyperText Markup Language and Java applets, which allow some functions like data validation and calculations to be run on users' browsers.

? If you've customized client/server systems, portals may be a pain

Because earlier versions of SAP, PeopleSoft and other enterprise software packages were designed around a set of "vanilla" business processes, many customers made major modifications to the software packages to bring them more closely in line with their requirements. But migrating to portals may break a lot of that work. Some PeopleSoft8 users have experienced major difficulties, because they can't just plug their prior custom pieces of code into an upgrade. Since PeopleSoft8 is essentially a complete rewrite of the product, the code built by customers can't easily be ported over to the new system—which has caused frustration. Gupta recognizes this. "Based on how much customization you've done in the past, the more challenging an upgrade becomes. The trouble has been with people who've done lots of customization." But Gupta says that many of the functions customers built in-house have now been added into the product.

The migration problem is less of an issue for SAP customers moving from R/3, since R/3 is part of mySAP. However, cus-

tomers may still have to change some settings to connect them to newer features of the software. The real challenge is moving customized processes from SAP R/2 (a mainframe-based product) to mySAP and R/3—which would essentially require a major rewrite.

? Some portals are storage hogs

Using Web browsers means more data gets stored back on the server—in some cases, a lot more. That's because additional information and application code that used to be in software on laptop and desktop computers must be stored for each user account in database tables on the server, as well as information about custom views of enterprise data.

Lance Travis, analyst at AMR Research, says moving to mySAP.com can increase required storage on the server by 30% to 50% over SAP R/3 "just to duplicate what you had before." That can add up to hundreds or thousands of additional gigabytes of disk storage. But SAP officials say that most users will experience a great deal smaller growth in storage requirements—usually from 0 to 5%. Customers may see spikes in storage needs because of the additional features built into the mySAP platform that were optional with earlier R/3 implementations, such as the business information warehouse.

? Moving to a Web-based version of an old product means new technology—and new problems

Transactions in a client-server environment are, while not child's play, fairly well understood. But doing transactions using the Web is another matter. As companies try to take advantage of technologies like Web services and electronic marketplaces, they may hit some trouble.

"SAP Internet Transaction Server [ITS] is very difficult to deploy; we've heard of very few people who've successfully deployed it," says AMR's Travis. "Lots of people have taken six, nine, or 12 months to roll it out, and have never deployed it correctly. It's a difficult area to get up and running correctly." He points to the complexity of the configuration and problems with the reliability of ITS as the main barriers. SAP officials, however, say SAP customers haven't had major problems with ITS, and that there has been no significant negative feedback about the software.

—SEAN GALLAGHER

ESCAPE YOUR VENDOR: MICROSOFT WHAT HAPPENS WHEN YOUR SAFETY NET BECOMES YOUR NOOSE?

BRENT ZEMPEL WASN'T SURE WHEN OR HOW IT HAPPENED.

But as CIO of Life Time Fitness, he had to untangle the \$225-million-a-year health club and food retailer from the comfortable constriction of Microsoft's Web-based software, in favor of a more flexible technology that would evolve with—rather than define—his company.

"Basically, we reached a critical point when Microsoft terminated support for what they held out as their platform for Web applications," Zempel said. "When that happened, it made us pause and really think about where we were going. It was clear that we'd become too tied to Microsoft."

Every aspect of the company's collection, ordering and scheduling processes were controlled through Microsoft's Internet Information Server running on the Windows NT operating system. Using Active Server Pages and the Visual Basic programming language, the company wasn't able to write specific applications it needed to service its accounts back in the Internet-crazed days of late 1999.

If a customer at one of its 26 locations across the country wanted to schedule a massage online, Life Time Fitness couldn't accommodate them because a "quick and dirty" solution created in Visual Basic didn't leave any room to allow for each and every service the company might want to offer its customers.

With customization difficult, there was no way Life Time could market a specific service to individual members who might prefer one masseuse to another or wanted to arrange for a personal trainer or even to do something as mundane as check a monthly statement.

As the company began to sell its products to health food stores and earthy eateries, the information technology department realized that Microsoft's Web applications weren't flexible enough to provide the day-to-day interaction Life Time needed to attract new customers and maintain the ones it already had.

Collecting monthly dues took several days to a week, stifling Life Time's cash flow and bringing on what Zempel called "accounting nightmares." Getting an up-to-the-minute snapshot of the company's financial health was out of the question. Executives couldn't get answers—say the number of members using a babysitting service in a given month—because the Web applications couldn't cull the right information from legacy databases.

And getting answers from Microsoft proved difficult. As *Baseline* went to press, the software company was even having difficulty identifying an account representative assigned to Life Time.

After years of running all the company's applications on a Unix server and Microsoft software, Life Time Fitness and its 4,000 employees had outgrown the standardization that originally had been the most alluring aspect of Microsoft's products, in Zempel's estimation.

"We had always been a Microsoft shop," Zempel said. "But it's a one-way street. We were told from on high what will and won't be supported and had to adjust our business accordingly. It's no way to run your business."

Along with building on the point-of-sale system employed at its health spas and vitamin outlets, Life Time Fitness wanted to communicate electronically with its growing stable of health-food cafes and restaurants and continue collecting monthly dues from thousands of clients each month, something that had become far too complicated and superficial using Windows.

It was time to break what Zempel felt was an unhealthy dependence on one vendor.



After window shopping and consulting with other retailers, Life Time Fitness switched to Sun Microsystems and its J2EE middleware to develop its business applications. The idea was to start from scratch on a more open architecture that could accommodate additional business units, personalized scheduling, targeted marketing plans and, most important, bill and collect dues from members in a timely fashion.

"We gave up our comfort zone of not having to think about our options with Microsoft," said Wesley Bertch, Life Time Fitness' director of software services.

"With Microsoft, all these decisions are made for you. We were accustomed to not making decisions." Microsoft officials were unavailable to comment on Life Time Fitness or to identify the company's former sales representative.

Unlike most other CIOs, Zempel didn't bother to show his boss the return on investment that such a massive change would bring. He just did it and dealt with the ramifications later.

"I told my boss, the CFO, about four months into the transition and he almost killed me," he said. "I figured it was better to ask for forgiveness than permission. By that point, we were already seeing the benefits of this move but if it hadn't worked out, I would have lost my job. No question about it."

Now Life Time is able to access an up-to-the-second snapshot of all its customers, billing information and orders, but it can also develop the type of novelty software pieces it needs to cater its marketing endeavors.

The collection of monthly dues is now completed in a matter of hours rather than days, improving the company's cash flow and eliminating many of the complaints it used to hear from customers.

One of the first decisions Life Time made was to get all its members photographed and entered into a database that worked in every location around the country. A simple swipe of a 5" x 7" card identifies the member, shows his or her preferences, purchasing habits and pops up a picture of the member so the check-in process is reduced to mere seconds.

Escaping from Microsoft and adopting Java brought challenges. The technical staff had to be retrained to program and debug Java applications. Employees from the CEO down to the rookie sales associate had to be able to sit down at any counter at any health club location and know how to operate the sales desk.

Zempel said the only real cost of making this transition was the retraining of its internal IT staff and the use of outside consultants. He pegged the costs as somewhere between "\$10,000 and \$20,000." The additional hardware and software costs were a wash because he would have spent the same to install and maintain Microsoft's offerings.

"We've got 16-year-olds that work our desks," Zempel said. "They are the face to our customer. We had to give them something easy to learn, with a simple user interface. It had to work for the 16-year-olds and for the backend business processes."

—L. B.

would slip into place on top of R/3.

Byrne monitored the SAP team's status meetings and also met separately with Laghaeian. SAP senior management met with Schmidt, Laghaeian and others at Osram every quarter.

Meanwhile, Laghaeian was overseeing another reorganization of Osram's technology department, which ultimately dropped to 90 members from 200 when SAP first arrived. This time, the staff had to learn new Internet technologies and adjust to the demands of overseeing an e-commerce site that had to run 24 hours a day and work

inside Osram's existing technology infrastructure. This also meant retraining sales and marketing staffs, and redesigning Osram's business processes to support the sale of lighting products through mySylvania.com.

Osram and SAP created storyboards of the processes and transactions that were going to take place on the portal and then tried to figure out the logic behind them. For example, selling over the Web meant changing the way Osram handled orders. Orders might flow from the customer through mySylvania.com to the distributor, with customers being able to follow the status of their orders

EMBRACE YOUR VENDOR: MICROSOFT STANDARDIZATION? GREAT. THAT'S A CLEAR COST ADVANTAGE

JEFF COHEN DOGS MICROSOFT.

He calls, he visits, he lobbies his way into every early adopter program he can find that will help JetBlue Airways take advantage of the latest Microsoft technologies.

Cohen says he works hard at getting and keeping Microsoft's attention—much harder than he would have to work if he were CIO of a Fortune 500 company rather than a two-year-old, \$320.4 million discount airline. But he thinks the benefits to JetBlue are well worth it.

"I run my company on dog food, and it works out OK," says Cohen. "I wouldn't do this without Microsoft. You can't do this stuff without them. But I'm not afraid of what's going to happen. I'll take the calculated risk of running new technology."

JetBlue's dependence on Microsoft pales in comparison to the discount airline's dependence on Airbus, which makes all of JetBlue's planes, and International Aero Engines, which makes the engines. Not only does JetBlue rely on a single aircraft manufacturer, but also on a single model and a single engine type, something the company notes as an operating risk in its recent filing with the Securities and Exchange Commission announcing its intention to go public.

Nevertheless, says JetBlue president and COO Dave Barger, complexity—whether it's in luggage carts or boarding pass readers or software—raises costs. "This airline is a low-cost, low-fare airline, and to keep things like that simple, you have to have the right relationships," Barger says.

Except for JetBlue's reservation system, which is run by an outside contractor on Hewlett-Packard's MPE operating system, all other significant company software is run on Windows. This even includes JetBlue's Oracle database, known more frequently as a Unix-based method of storing large amounts of critical information.

Cohen estimates that focusing on one operating system cuts the number of technology staff he needs to hire by 40% to 50%. At JetBlue, 27 technology workers support 3,500 employees.

And the savings are another reason the company can wage price war against rivals. Cohen claims that while other airlines spend about 5% of their revenue on information technology, JetBlue spends 1.5% of revenue.

Saving 3.5% of revenue can be the difference between profit and loss, even in healthy times in the airline industry. In 2000—before terrorists ever flew jets into skyscrapers—U.S. airlines recorded net income of \$2.9 billion on operating revenue of \$134.7 billion, according to the U.S. Department of Transportation. That's seven-tenths of one percent.

Hence Cohen's entire job is to productively manage JetBlue's Microsoft relationship—a relationship built on contacts he cultivated over five years while working independently as a consultant.

JetBlue does not get free software. Indeed, Microsoft Consulting Services representative Mark Feldman, an old contact of Cohen's who helps JetBlue navigate through Microsoft, calls the airline one of Microsoft's best customers.

Feldman keeps in touch with Microsoft program managers and product managers, watches for early adopter programs, and sets up campus tours every four or five months—in return, JetBlue spends about \$350,000 a year on software.

And Cohen claims his laser-like focus on Microsoft helps JetBlue hold down costs. In return for committing itself to becoming the most technologically advanced airline running on Windows, JetBlue employees have earned free training, free consulting on projects for which the sponsoring Microsoft department has money, and direct access to Microsoft consultants and developers to help blunt the impact of being on Microsoft's cut-

ting edge. In the last year alone, Cohen says, he sent 20 JetBlue employees to Redmond for training on beta software. He estimates annual savings "to the tune of six figures" for participating in a Microsoft Enterprise Agreement and a Select Agreement, and another \$100,000 in savings for each Joint Development or Rapid Adoption or Early Adopter program in which JetBlue participates.



"This is a low-cost, low-fare airline, and to keep things simple, you have to have the right relationships."

—DAVE BARGER, PRESIDENT AND COO, JETBLUE AIRWAYS

Microsoft consultants regularly work on projects at JetBlue, and when there are problems—like a glitch in the Windows 2000 Distributed File System that temporarily prevented pilots from using JetBlue's prized "paperless cockpit" to download flight manuals onto their laptops—a team of Microsoft developers helped fix the system, not just for JetBlue but for all other Windows 2000 customers.

"It wasn't working so we came up with an ad hoc way to make it work temporarily," Cohen says.

Cohen manages Microsoft by creating "pathways" into different Microsoft departments, such as the Office team and the .NET enterprise group, which tend to have different projects and different early adopter programs. Then, he turns over responsibility for those pathways to members of his team.

One factor that helps JetBlue, Cohen says, is the company's willingness to fully commit to Microsoft projects. Cohen also works at being a "tremendous reference" for Microsoft, speaking to customers all over the world, to the press, to Microsoft district sales meetings, and to the Microsoft CIO Forum, a gathering of his peers. Feldman says Cohen is so enthusiastic about Microsoft that he is sometimes mistaken for a Microsoft employee at Microsoft events, and Cohen acknowledges that his enthusiasm is not universally shared throughout JetBlue.

Even Microsoft employees, for instance, have puzzled over .NET. Feldman says he and Cohen attend the Microsoft CIO Summits together, listen to Microsoft executives spin the vision of .NET, and brainstorm about how it could apply to JetBlue. "[Microsoft says] myServices—OK, we apply that to how JetBlue could use myServices to notify customers when planes are late or when there's a special fare up on a ticket," Feldman says. "Then when the technology comes out for early adopters, we say, OK, we saw this person present on it and think, who works for that person who's in charge of early adopters?"

That can lead to revenue producing projects like ShopBlue, which JetBlue developed with a beta of VisualStudio.NET. ShopBlue doesn't sell tickets, but rather JetBlue merchandise such as T-shirts.

But every little bit helps, for a low-cost airline. "A lot of times it's just selling your commitment to do it and being in the right place at the right time," says Feldman.

— D. G.

along the way. Before, distributors sent orders directly to Sylvania.

Osram and SAP redesigned the appearance of the catalog screen, creating a left-side navigational bar, as is the custom on many U.S. Web sites. There was none before because SAP was accustomed to designing sites for transaction processing.

SAP also allowed Osram to decide how items could get into its catalog and be searched—an issue that Byrne says

was nearly as important to Osram as the directory protocol because of the importance of the National Association of Electrical Distributors (NAED) codes that are attached to products.

Over the years, Osram's pricing of its products had grown byzantine—the same lighting products were sold under different names to different types of customers at different prices. Osram as a result developed a unique pricing application that specified how a customer's price quote got ap-

proved; that application in turn connected to the pricing data inside SAP's software.

Even though this meant writing custom code, SAP's new software had "user exits"—points where control over a software routine is passed to a programmer, who gives the routine a task, and then passes control back to the main program. This would allow Osram—and future users of the standard SAP customer program—to avoid altering SAP's core code.

Even so, Osram had to clean up data in the existing R/3 system and eliminate some outmoded pricing schemes, to simplify the process.

In effect, being locked in to SAP and its product direction resulted in negotiations between Osram's business and technology departments over which prices were worth saving and which created more technical issues than they were worth.

"There are pressures from the business side and you have to find a way to accomplish that. They don't ask you to modify, they say, 'I want SAP to do that,'" says Laghaeian. "[But] the problem with all these features and functions is the maintenance."

Laghaeian says Osram "underestimated the whole project," from the business impact of being on the Internet to the product catalog. With just 13 months to get the product online, getting the catalog right took nine months. Osram needed to figure out how to systematically connect all the information associated with its lighting products in Lotus Notes, its computer-assisted design database and other locales.

All this while time was always at a premium. Everything except the relationship with SAP, he says, "was being defined on the fly."

Ultimately Osram received a go-to-market version of the product, known as mySAP CRM 2.0, in May 2000. Laghaeian then had a month to pull together a demonstration of mySylvania.com before SAP intended to introduce its new software with much fanfare at its SAPHIRE user show in Las Vegas.

The SAPHIRE show may have marked the end of product development for SAP. But the stress was not over for Osram. Laghaeian by this time was bringing in third-party software to supplement mySylvania.com. Osram found it needed software from FileNet to manage the tens of documents that can be associated with a single lighting product, TeaLeaf Technology software for tracking the customer's experience on mySylvania.com (a product Osram ultimately replaced with its own solution), and Microsoft BizTalk for sending data to customers in the extensible markup language.

Osram decided to postpone the launch date from August for further testing—"why are we killing ourselves?"

Laghaeian would ask himself—but in October, the mySylvania.com site did launch, coinciding with the launch of a new Osram fiscal year.

Laghaeian was able to show off the site in Germany, at company headquarters, at that point; and Osram was taken aback to receive orders online from the Philippines. That was a surprise of starting to do business on the World Wide Web—it didn't have a distributor in the Philippines. Osram's technology crew had to shut off access to non-North American customers.

MySylvania.com still has hiccups, says E.J. Kenney, SAP's vice president of consumer products—most recently with the shopping cart, which had problems taking orders over a certain size. SAP had supplied a patch that Osram did not apply, because it was focused on expanding the features already in place, rather than changing site architecture. Osram expected to change the architecture with the next release of mySAP CRM, but Laghaeian says the decision "came back to bite us."

"They had to prepare customers for (difficulties with filling the shopping carts) and it was dragging on and on—everybody was disappointed that it was not fixed sooner," Kenney says, but the two sides could work out the problem, because the relationship was strong enough.

WHITHER OSRAM?

Most of the players at Osram who had a hand in developing mySylvania.com have moved on to other roles. Laghaeian, Schmidt, and Wilson are left to figure out how to get more value out of the pieces Osram has put in place.

Laghaeian notes Osram has not always guessed correctly on which parts of mySylvania.com would provide value. For example, no customers are getting the full value of swapping order information with Osram in the Web data formatting language, XML. This is dismaying since that was a format Laghaeian insisted on. The hope had been that Osram could eliminate the custom coding of transactions for non-participating customers. Even being locked into SAP didn't solve that key issue. Osram, in the end, had to go to Microsoft to even get the XML tool it needed.

"The thing is that unless you do fundamental implementation of systems like we have, it's not easy to do, it just adds to your cost," he says. "We are very rigid ... architecturally, and there's a reason for it. If we don't stick to our guns, (our costs will) spiral out of control."

SAP achieved its goals, getting a customer management software program to market—and getting Osram to license the entire mySAP.com suite of e-business software that has come to market since.

That, in turn, should let Osram continue to reduce the number of software vendors it uses. IBM's Lotus Notes for electronic mail and PeopleSoft software for human resources and payroll are too entrenched to remove, but Osram is migrating off Cognos' business intelligence software to SAP Business Warehouse, and may move off Manugistics' logistics software, as well. Osram is again helping SAP in that arena, to develop its competing product, known as Advanced Planner and Optimizer or APO.

Laghaeian still clearly wants to eliminate other vendors in favor of SAP. But the love is not endless. If SAP were to miss a major technology trend, like it almost did with the Internet, Osram, he says, will move on. ◀