

## Leveraging the Value of Existing Supply-chain Solutions

By Jean V. Murphy

**IT budgets are increasing, but few of those dollars will make their way to the supply-chain arena. The focus there will continue to be on leveraging existing technology.**

**A**nalysts say businesses are increasing IT spending in 2005, but this news comes with a big caveat: Most of the new investment is earmarked for corporate compliance. Mandates contained in the Sarbanes-Oxley Act and the Health Insurance Portability and Accountability Act as well as general document and record retention regulations are among companies' most pressing concerns, according to AMR Research, Boston. Corporate surveys conducted by AMR indicate that organizations will spend close to \$15.5bn this year alone on compliance-related activities.

While necessary, this development may seem like shades of Y2K to other areas of business, where technology budgets are likely to again be short-changed. "In order to address the mandates, executives have had to shift IT priorities from customer-driven initiatives directed at growing the business to investing in technology to support compliance," write AMR analysts Fanella Scott and John Hagerty.

This means that in operational areas like the supply chain, the primary focus will continue to be on leveraging existing technology.

"Most of the supply-chain investments we are seeing now have to do with trying to get more from current applications, either by adding visibility and performance-management tools, by trying to fill gaps to get a more complete solution or by just making information from existing tools more accessible to users," says Noha Tohamy, a principal analyst at Forrester Research, Cambridge, Mass.

The good news is that there are ample opportunities for operational improvement hidden within these parameters.

To begin with, companies generally are using only 25 percent to 50 percent of existing functionality, estimates Brad Householder, principal at PRTM Management Consultants, Waltham, Mass. Similarly, says Gartner Group analyst Andrew White, "our research indicates that a lot of supply-chain software has been either over-licensed or poorly or partially implemented." Companies increasingly are taking a practical approach to exploiting this potential, White says. "They are realizing that it is cheaper and more productive to reevaluate what they have bought, but not properly used, rather than trying to get a new project going."

A good first step is to take an audit of existing applications, says Tohamy. "With a lot of supply-chain tools, there may be only a couple of users and these may be using only a portion of the capabilities," she says. Tohamy advises companies to evaluate the adoption level of tools like demand planning, warehouse management or transportation management and, if low, to work with users

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to understand the reasons why. She suggests that companies also look to vendors for help in this area. "Let's say a company has had a tool from i2 Technologies or Manugistics for five years and has not achieved the benefits that it or the vendor were expecting," she says. "They might want to go back to that vendor and say, 'Let's come up with some appropriate performance metrics and a roadmap where we can have a checkpoint every six months or so to see if we can fine-tune the solution.'" If not, she says, it might be time to go back to the assumptions that were used when the solution was set up. "Some of the business goals or priorities may have changed."

Understanding a company's overall business goals and its value proposition clearly is essential to making the most of either past and future technology investments.

"If you want to be competitively differentiated enough to have high margins and sustainable margins, you must find where the supply chain makes you different and foster that with carefully targeted IT investments," says AMR's Kevin O'Marah, vice president of research.

Most companies have no trouble with the first half of this equation: knowing the strategic direction and character of the business, he says. "The piece that people tend to fail on is knowing which investments fit into the category of supporting that core differentiator and which are just context—investments that enable you to be as good as anyone else, but where no one will pay you for being better."

The reason that companies often fail to separate core from context IT investments is that they push the selection decision too far down in the organization, O'Marah says. "If the decision about whether to use an off-the-shelf, best-of-breed warehouse management package is pushed down to the people who run the warehouse, they are not in a position to weigh the strategic tradeoffs that might, for example, favor going with a module of SAP or building something very customized. You need that strategic insight," he says.

### **IT Roadmap**

Another critical aide in making the right investment decision is an IT roadmap, says O'Marah. This map shows the various pieces needed to support stated business goals and how they all fit together. "Without a roadmap you are just running from project to project," he says. "You really can't tell whether or not a project that is running into trouble falls into the category of 'this is stupid, let's stop throwing good money after bad and kill this thing,' or 'this is critical, let's face this challenge with additional resources and solve it.'"

Following an IT roadmap also can help companies avoid any additions to their inventory of "shelf ware," says Michael LaRoche, vice president, supply-chain practice, at IBM, Armonk, N.Y. "If your business clearly has to be able to electronically collaborate with its trading partners, then you have to have that capability," he says. "But if that is not part of your strategy—if you are focusing on low-cost, arms-length transactions—then you probably don't. It all boils down to having that clear strategy."

Mohammed Hajibashi, partner at Accenture, Reston, Va., agrees, though he has seen few companies that actually approach IT investments in this way. Rather, most companies end up making reactionary investments, he says. "They have an inefficiency or a cost-reduction goal that they are going after and they put a project in place that will achieve the goal. This gives them a piece of the pie, but they don't really see the whole pie. The ideal approach is to set the strategy of where you need to be and then put the different pieces together to create the whole."

### **Fine-tuning Processes**

Another key to squeezing more value from existing applications lies in fine-tuning business processes. "One of the biggest problems with technology spending is that companies too often invest without understanding how they need to change the process and the workflow of users," says Tohamy.

This was clearly a big failing with many ERP implementations, adds Hajibashi. "Everyone thought they had to have an ERP system to remain competitive, but few really focused on their business processes," he says. "They are only now starting to look at the right way to implement these things so that the technology gives them the expected benefit." As a result business process outsourcing to companies like Accenture has become a growth industry. "Companies bring in consultants like us that have cross-industry experience with best practices to tie those practices and processes into their technology environment," he says.

PRTM often approaches this issue by helping companies standardize business processes that directly interact with software applications. "We have had a lot of success with very focused process standardization efforts in some of these multi-location companies," says Householder. This allows our clients to begin to unlock a lot of the hidden value in systems they have implemented."

He notes that a PRTM survey a couple of years ago of more than 60 companies underscored this point. These companies were questioned to determine the maturity of their systems and their processes and then were plotted onto a four-part matrix, with one box representing maturity in both systems and processes, one representing immaturity in both, and two representing a combination of maturity in one category and immaturity in the other. "Interestingly enough," he says, "the worst-performing group of the four were companies that had mature systems but immature processes." These companies scored 26 percent worse on inventory performance and 7 percent worse on profitability, compared with companies that had not attempted to implement advanced systems. Companies that were mature in both areas had the best performance, with profitability almost double the average.

### **Easier Integration**

Better integration of applications and of trading partners are other keys to getting more from existing and incremental technology investments. New approaches are making these undertakings easier and less costly.

Atlanta-based Seeburger, an integration company with more than 6,000 customers, uses a platform known as B2B Gateway to integrate both applications and trading partners. "We believe a majority of organizations, regardless of size, operate in a distributed environment with suppliers on one continent, customers somewhere else and multiple applications that they have to deal with," says Steve Sprague, vice president of product strategy. "So we address two layers. First, the integration spaghetti and how to tie various applications together through a hub architecture so they can communicate with each other. Second, we focus on trading partner enablement, whether through an electronic connection, a portal or paper." Seeburger says it can quickly integrate 100 percent of a company's trading partners and distribute data wherever it's needed inside and outside the enterprise.

OSRAM Opto Semiconductors recently used Seeburger's Business Integration Suite to connect all of its customers, enabling full EDI communications. "We were able to get all of our customers and all of their transactions converted and tested well before our deadline," says Jim Norris, OSRAM Opto's director of IT. This included mapping more than 75 different databases to OSRAM's SAP database "in a very short timeframe," he says.

Enterprise application vendors are responding to the pressure to facilitate integration by breaking their products into components. These can be deployed, extended and maintained separately, using a common platform and a standard component framework accessible to third-party software developers. SAP NetWeaver is the most prominent example of this trend, but others are doing it as well. "Layering applications on top of a horizontal platform makes integration a lot easier, not only to the enterprise vendor's own products but to outside solutions as well," says Tohamy.

Execution software provider Catalyst, Milwaukee, Wis., has leveraged the NetWeaver capability

by developing numerous components that can provide specialized functionality within SAP. For example, the Catalyst Slotting Solution is a component that can use inventory location and demand data within SAP WM to determine item velocity and optimum slotting locations as well as replenishment plans. Using this plug-in solution is far easier and more cost-effective than customizing SAP.

“There are a lot of companies with multiple instances of ERP or with one ERP and a host of best-of-breed, bolt-on solutions,” says Jim Treleaven, Catalyst CEO. “So the question is how to make this mixed environment work better with small incremental investments. The way we do that is through a number of platform-independent components that use standard communications protocols to plug into that environment and do all kinds of good stuff.”

### **New Architecture**

Other software companies are employing this type of Service Oriented Architecture (SOA) to extend functionality in a similar way.

Tom Roberts, vice president of industry solutions at webMethods, Fairfax, Va., describes SOA as a “loosely coupled design that enables a service between two applications. That service is published and made available so that anyone else can come in and reuse the code. It is designed so that when the end points change, the service doesn’t fall over or become not useful.”

Because it is re-useable and modular, SOA components do not create “the brittle, point-to-point infrastructure that we saw before,” says Roberts. Moreover, different services can be streamed together to create new applications or more complex services that can be extended to partners. “The idea is that once you have the building blocks, you now can make a house,” he says. WebMethods takes its assembled components a step further and adds exception management by having the software look for things that are abnormal. “It can be abnormal good or abnormal bad,” he says. “But if you can identify the anomalies, you find out what is going on in the supply chain and you build more and more visibility.”

ClearOrbit, Austin, Texas, is another software company taking this approach. It offers supply-chain execution “extensions” to ERP applications that require no independent data models or custom code. Three-quarters of the cost of ownership of best-of-breed software applications is related to synchronizing best-of-breed databases with the ERP database, says President Tom Dziersek. ClearOrbit’s approach is to treat ERP as if it were an operating system like Windows. “Adding best-of-breed applications, with their separate databases, database integration issues and separate reporting engines would be like spending millions of dollars to add network security, icon management and navigation to Windows. Why duplicate what is already there?”

ClearOrbit’s modules sit on top of ERP and use data that already resides in ERP, he says. “We are a best-of-breed supply-chain execution vendor in terms of functionality, but there is no disparate data, no duplicate set-up, no cost for integration and no re-implementation of ERP into this new solution. Basically, we are 100 percent about getting more value out of the infrastructure or system of record called ERP.”

DW Morgan Co., Pleasanton, Calif., also believes that a lot of time, money and accuracy are lost because of unnecessary data duplication. “Our view is that information already exists out there that you need to run your business,” says President David Morgan. “You just need to know where to go get it. Our solution resolves those inefficiencies by going out and getting information on demand.”

Morgan describes the supply network as a set of databases connected by communications. “Our approach is to go out and get the information an application needs using network-to-network computing in an on-demand environment.”

LegaSuite from Seagull Software, Atlanta, is yet another example of an SOA offering designed to

enhance the use of legacy applications. "We do not change the underlying core applications," says Andre den Haan, senior vice president for product strategy. "We just put a layer on top that enables people or other applications to access your information in a secure way."

The re-use of existing IT assets is essential to closing the growing gap between business change and IT responsiveness, he says. "We can't code our way out of this problem. That would take too long and cost too much."

Kia Motors Germany recently implemented LegaSuite to give its 450 dealers visibility to Kia's inventory of cars and parts. "Before all this was handled by fax and the information was always old," says Frank Kruse of Kia. "We wanted an online system that would give our dealers access to data that was more current so they could support their customers in a better way."

Kia did not have to make any changes to its existing application or hire programmers with special skills, says Kruse. "It is like a pair of colored sunglasses. You see the graphical interface instead of the green screen, but it is the same data and you use the same application logic."

The LegaSuite implementation was so successful in Germany that it was later rolled out to other Kia divisions throughout Europe.

"Using a service-oriented architecture really gives you an enhanced chance to be the company that can react better, faster and stronger than your competitors," says Roberts of webMethods.

"It makes possible a level and ease of integration that was not possible a few years ago. This is what we are talking to leaders in industry about and what we are seeing the most advanced companies execute on today."