

BEST IN CLASS

COMPUTERWORLD
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PREMIER
IT LEADERS 2003

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SUPPLY CHAIN RE-ENGINEERING DRIVES DOWN COST OF POWER

BY MARC L. SONGINI

THE DESIRE to boost efficiency, standardize processes and cut costs in its supply chain led the Tennessee Valley Authority (TVA) to launch its largest IT project to date — and the return-on-investment results are already exceeding expectations.

The power generator's supply chain re-engineering project began in 1996, with the hope that cost reductions would mean cheaper power for end users. Since going live after a weeklong big-bang implementation in July 2001, TVA has reaped \$23.5 million in savings, putting it a year ahead of schedule in its plan to cut \$54 million in costs in five years. Central to the system are applications from Indus International



Tennessee Valley Authority supply chain system team members (left to right): Deborah Sandridge, Donnie Martin, Rebecca Lockaby and Diane J. Bunch.

Inc., an Atlanta-based enterprise asset management software vendor.

"From the sheer magnitude, it was the largest undertaking in the agency's history," said Diane J. Bunch, senior vice president of information systems at TVA, a nonprofit federal government corporation. The project required the agency to work closely with its customers to decide on the best implementation approach, which they eventually agreed should be a fast rollout. "This meant getting everything going at the same time," Bunch says.

The big-bang approach was "very scary," says Paul Lapointe, senior vice president of procurement at TVA. But what made it successful was the continual involvement of business experts

TENNESSEE VALLEY AUTHORITY

Location: **Knoxville, Tenn.**
Web: **www.tva.gov**
Project leader: **Diane J. Bunch**
Business: **Largest government-owned U.S. power producer**
2001 sales: **\$6.9 billion**
Size of IT department: **741**

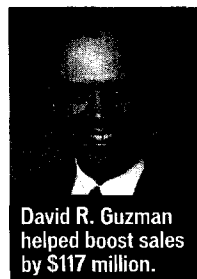
at each of TVA's locations, who took responsibility for the project's success. End users were also key. "We tried to leave no one out," Lapointe says.

In the process, TVA was able to elim-

DATA WAREHOUSE BOOSTS PROFITS BY EMPOWERING SALES FORCE

BY GARY H. ANTHES

VETERAN IT LEADER David R. Guzman wants his management to say, "Ah, got it!" And executives at Office Depot Inc. definitely did get it when Guzman and a team of his colleagues, in the first application of a new data warehouse, boosted annual sales by \$117 million. Guzman, senior vice president for systems development at the time, says he was the "catalyst" for the project, which involved measuring sales clerks' and stores' success at cross-selling certain items, such as encouraging printer buyers to purchase a cable and paper.



David R. Guzman helped boost sales by \$117 million.

The concept was pretty simple, but measuring the results for each of 60,000 employees in more than 1,000 stores called for data warehouse technology from the Teradata division of NCR Corp., Guzman says. The warehouse spit out a key report that showed the percentage of cross-selling opportunities that were successful, broken out by employee and store.

The purpose of the report, in addition to providing measurements, was to tap into the natural competitiveness among Office Depot store personnel, Guzman says. "I knew it was successful when I went to a store in New York and another in Paducah, Ky., and found the . . . report on the wall of the employee break room."

"The visibility is what drove the stores' acceptance," says Gene Alvarez, an analyst at Meta Group Inc. in Stamford, Conn. "Sometimes data warehousing can be ignored by the stores unless it provides direct metrics on

inate 20 legacy homegrown and third-party applications, integrate 32 others and create an enterprisewide system that works in near real time. Instead of once-a-day updates generated from the nightly batch processes, users can now see TVA's inventory across all its locations anytime.

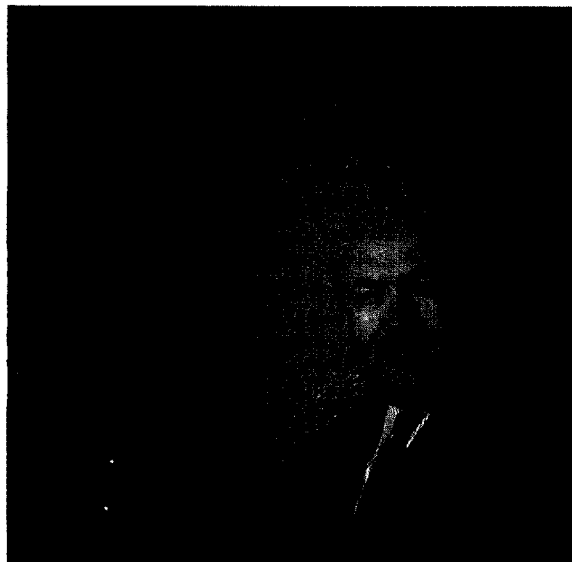
The new system enables TVA to make companywide volume purchases and to cut the price of maintaining multiple older systems. It will also allow the pruning of 89 positions through attrition. Additionally, TVA installed logistics software from Manugistics Inc. in Rockville, Md., that has centralized its freighting operation and reduced mileage for its truck fleet.

Lapointe says there was extensive communication between the IT project staff and users throughout the process. The final rollout was kicked off during the week of July 4, when TVA's activity was at its lowest.

In the new architecture, TVA runs a centralized version of Indus' Passport supply chain software, which connects to 17 copies of Indus' Enterprise Maintenance Planning and Control (EMPAC) asset management software. An integration module built around IBM's MQSeries middleware lets the two sets of applications communicate.

The project required loading 400,000 catalog items at each EMPAC site, and it engaged 5,000 end users, but "overall, from the operating side of the company, we felt very little pain," says Lapointe.

"User buy-in is a critical success factor," says Gartner Inc. analyst Karen Peterson. "That means going beyond the project team to every person who touches the applications being rolled out. Project teams that ignore this critical component will most likely fail." ▀



Celanese Chemicals' William L. Schmitt got sales force buy-in on a mobile Web interface once he tied in a key app: e-mail.

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WIRELESS WEB BROWSER TIES SHIPPING DATA, E-MAIL

BY BOB BREWIN

NEW TECHNOLOGY, when deployed in the field, sometimes doesn't succeed until users find a simple but powerful reason to embrace it. That's what William L. Schmitt, director of business enablement at the Dallas-based Celanese Chemicals Ltd. unit of Celanese AG, discovered last year.

Schmitt developed a mobile Web interface for the company's Hewlett-Packard Co. Pocket PCs that would help its 25 U.S.-based field salespeople — each of whom is responsible for about \$100 million in

annual sales and is usually on the road — access shipping and billing data on back-end systems from SAP AG.

With the help of Clarkston Consulting in Durham, N.C., Schmitt developed an easy-to-use, text-based Web browser to access the SAP data. To provide "always-on" and relatively fast data access, Schmitt equipped the Pocket PCs with wireless data cards hooked up to Sprint PCS Group's nationwide Code Division Mul-

multiple Access IXRTT data network, which offers average data speeds of 40K to 60K bit/sec. He also outfitted the browser with built-in links designed to make any road warrior's life more comfortable, including a hotel and restaurant guide and mapping software.

Despite the utility of the new applications on the Celanese platform, called Mobile Chem VIP, Schmitt says the sales force didn't completely buy in until he devised a way to hook the workers into the company's Microsoft Exchange mail system using e-mail synchronization software from Synchronologic Inc. in Alpharetta, Ga. The sales force "is addicted to e-mail," he says, and relishes the ability to check messages throughout the day on the Pocket PCs.

Alan Reiter, an analyst at Wireless Internet & Mobile Computing in Chevy Chase, Md., says the Celanese project demonstrates that for many mobile workers, e-mail is an essential

CELANESE CHEMICALS LTD.

Location: Dallas

Web: www.celanesechemicals.us

Project leader: William L. Schmitt

Business: Producer of commodity chemical products; a subsidiary of Celanese AG

2002 sales: \$3 billion

Size of IT department: 75

tool. Companies looking to equip field workers with mobile devices should start with e-mail because "it's easy to do and enormously useful, and everyone knows how to do it," Reiter says.

But once a company has experienced the power of wireless e-mail, Reiter adds, it should move on to other applications that further empower mobile workers. Schmitt says that's exactly what Mobile Chem VIP does for the sales force. For example, it allows a salesperson to quickly locate for a customer a railroad tank car with a shipment of chemicals.

And access to billing information helps the sales force speed up payments, Schmitt says. Mobile Chem VIP allows them to call up and review disputed bills during a sales call and fix errors on the spot, cutting down the payment cycle time.

Twenty-five Celanese nonsales executives in the Dallas office now use Pocket PCs to access their e-mail while on the road, Schmitt says.

He says development costs for Mobile Chem VIP were relatively low — about \$30,000, plus \$1,100 each for the Pocket PCs. Schmitt says he can't put an exact payback figure on the project, but he says the system has already paid for itself "with just one incremental order for a tank car [of chemicals]." ▀

how the store is performing."

With any major new IT endeavor, it's important to quickly spot and pick some low-hanging fruit, Guzman says. "With success comes freedom," he says. "Data warehouses are kind of an amorphous concept to the business leader. But if you can say, 'Do you remember that project we did with cross-selling opportunities?' Then they can say, 'Ah, got it.'"

The cross-selling project paved the way for Guzman and his team to tackle more difficult projects in customer relationship management, he says.

"This is an excellent example of the

OFFICE DEPOT INC.

Location: Atlanta

Web: www.officedepot.com

Project leader: David R. Guzman

Business: Seller of office products, with 1,020 retail stores operating in 10 countries

2001 sales: \$11.2 billion

Size of IT department: 300

old keep-it-simple adage," Alvarez says. "It was very specific, very measurable and something that could be put in at a predictable cost."

Guzman is now CIO at Owens & Minor Inc., a Richmond, Va.-based medical supplies distributor, and he says he is applying the systems and team-building skills learned at Office Depot in his new job. Owens & Minor is implementing the next generation of its data warehouse technology, Wisdom, by linking supply chain information with clinical information.

Guzman gives his colleagues equal

credit for his accomplishments. At Office Depot, for example, he says the project couldn't have succeeded without leadership from the executive vice president for distribution, who brought discipline and focus; the marketing vice president, who provided sponsorship; and the executive vice president for stores, who enabled its execution.

Guzman says the Office Depot project taught him a key lesson in how to make an IT project successful: "Make it simple; make it fun; make it measurable; make it happen." ▀

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