INFORMATIONWEEK

JULY 10, 1995

FOR BUSINESS AND TECHNOLOGY MANAGERS

CAN $3.95 • US $2.95

THE
Training
Crisis

Companies
are spending
millions to
retrain tech workers.
There is a payoff. P. 36

The Training Payoff

For many technology managers, it's smarter to train existing staff than to hire people for new jobs. But updating skills isn't easy—or cheap.

By Eric R. Chabrow

S ANDY JAMES, a mainframe expert at GTE Data Services Inc. in Temple Terrace, Fla., was recruited last year to coordinate the installation and testing of a new project-management system that was to run on a Hewlett-Packard 860 Unix server and a variety of 486 PCs. ◆ During her nine-month assignment, James struggled with technologies in which she had no formal training. "If a user asked how long it would take to make a change," she recalls, "I didn't know if it would take 10 hours or 1,000 hours." ◆ James' tale illustrates the problem facing many technology managers: Businesses as diverse as heavy-equipment maker Case Corp. and credit-card provider MasterCard International Inc. are developing strategic systems on client-server platforms but find themselves with staffs skilled in legacy system applications development. As a result, many are realizing that the most effec-

PAUL CERNY
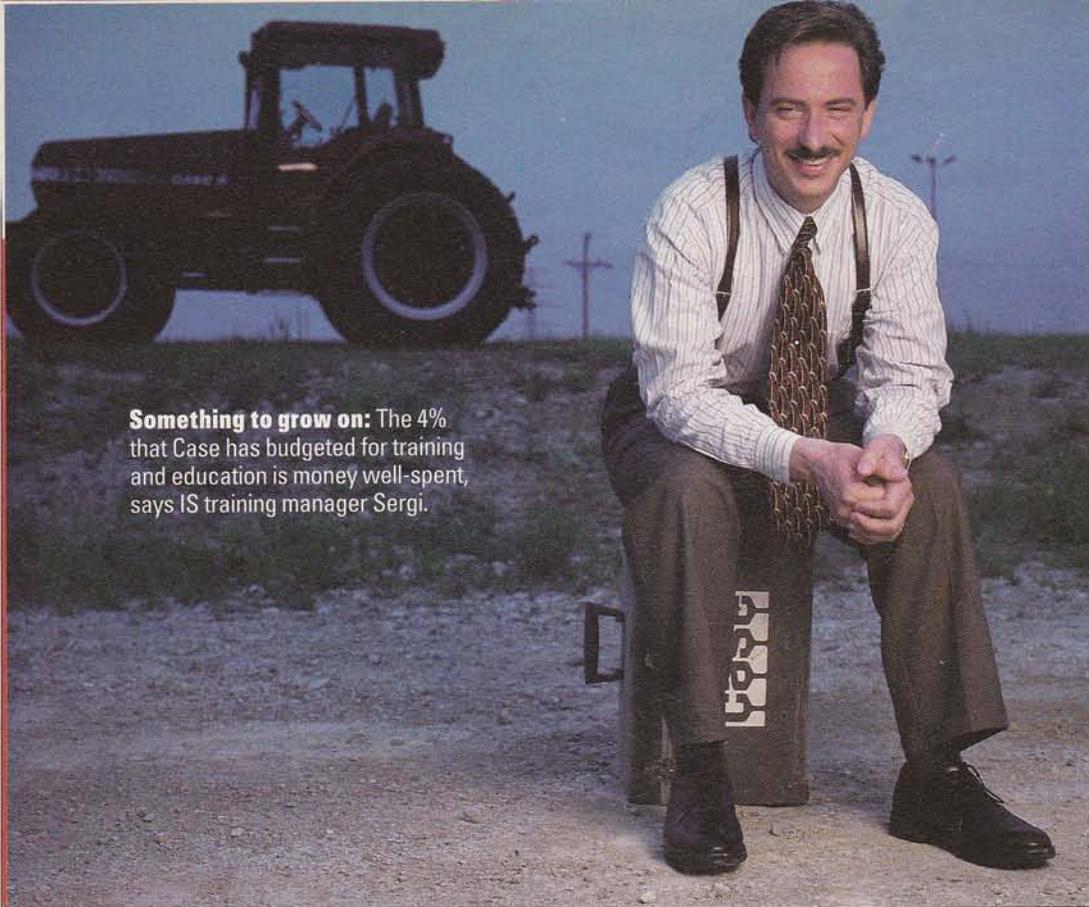
Something to grow on: The 4% that Case has budgeted for training and education is money well-spent, says IS training manager Sergi.

of developers were conversant in Cobol. Only 12% knew C and other fourth-generation languages. Forrester analyst Waverly Deutsch, who tracks client-server technology, says those numbers haven't budged in the past two years.

That creates a critical skills gap. Eight of every 10 new multiuser commercial applications will run on client-server platforms by 1998, according to Gartner Group, an IT advisory firm in Stamford, Conn. But because of downsizing, the supply of IT professionals within the companies creating these applications will have dwindled. "A lot of knowledge within corporations has gone out the door with downsizing," observes Brian Smith, associate director of Washington University's Center for Application of Information Technology (CAIT) in St. Louis. "Those people who are left have a tremendous amount of knowledge about their businesses."

tive way to gain developers, analysts, and programmers with client-server skills is to retrain existing IT personnel.

The process is costly but full of rewards. Current employees possess invaluable knowledge about their companies' businesses, work flows, and competitive environments—often gleaned from years on the job developing mainframe or minicomputer applications. By contrast, new employees—even those adept in client-server technologies—rarely possess that knowledge.

Even when a development task can be handled by a newcomer, there aren't enough qualified programmers and developers out there to fill all openings. "We can't find them," says Ron Thompson, manager of training at GTE Data Services, the IT unit of $19.9 billion telecom giant GTE Corp. "Their résumés say they can do C programming. But when we bring them in and conduct extensive interviews, we find out they don't have much practical knowledge or experience."

Numbers Tell The Story

Analysts tracking the client-server industry estimate that only 30% to 50% of the applications developers in the U.S. possess requisite client-server skills. Among that group only 5% can be considered expert.

A 1993 survey of large companies by Forrester Research Inc. in Cambridge, Mass., found that 86%

But retraining existing developers is expensive. Gartner estimates the cost of educating a programmer earning $50,000 a year at $17,800. GTE Data Service's Thompson figures that the price of the classroom instruction alone to retrain one developer is $5,000—excluding the up to nine weeks of time lost away from the job. A company can spend nearly $3 million in three to four years to retrain an IS department of 200 developers, say Forrester Research analysts.

Is cost becoming too much of a deterrent? Gene Raphaelian, a Gartner VP of industry services, estimates that only one in 10 major corporations has any retraining program at all. A typical company now earmarks a paltry 1.8% of its IS budget for training, the same level as in 1992, Gartner reports. By contrast, the information-intensive financial sector sets aside on average 2.9% of its IS budget for training, the highest among 24 industries. At the other end, surprisingly, is the telecom sector, which metes out a paltry 0.9% of its IS budget for education.

Fortunately, the number of corporations increasing their retraining budgets is rising. Raphaelian predicts that by next year, four in 10 companies will have a retraining program.

At Case, for instance, retraining

Types Of Client-Server Training Provided

% of companies

	10	20	30	40	50	60	70	80
Windows OS								
GUI design								
Basic client-server overview								
Oracle								
PowerBuilder								
C++								
Visual Basic								
Other object technologies								
Unix OS								
DB2								
Lotus Notes								
Sybase								
C								
SQL Windows								
NT								

Note: Total exceeds 100% due to multiple responses

DATA: FORRESTER RESEARCH 1994 SURVEY OF 50 LARGE COMPANIES