

The New York Times
September 18, 1990

An Old-Timer Bets On a New Line

By **LAWRENCE M. FISHER**

LEAD: The 106-year-old company best known for making cash registers is gambling that it can remake the computer market.

The 106-year-old company best known for making cash registers is gambling that it can remake the computer market.

The NCR Corporation, once the National Cash Register Company, quietly became the nation's fifth-largest computer maker by producing minicomputers and personal computers mostly for the banking and retailing market, automated teller machines for banks and electronic cash registers for supermarkets and other stores. Now, the \$6 billion company is betting on a new line of products, to be introduced today, to make itself far more visible in the general computing market.

Charles E. Exley Jr., NCR's 60-year-old chairman and chief executive, calls the new computer products the most significant of his 36-year career, even of the company's century-long history. Analysts say they are the most ambitious implementation yet of the concept of open systems.

Open systems, which have been promoted most vigorously by Sun Microsystems Inc., allow a user to mix equipment and software from different companies.

But there are risks for open-system manufacturers. If the various computers within an open system all adhere to industry standard specifications, it is easy to replace them with competing products. This tends to drive down prices, which is good for customers but bad for manufacturers' profit margins. The high margins attained by the International Business Machines Corporation, the Digital Equipment Corporation and others came from proprietary systems, which require components made by a single manufacturer, and will probably never be duplicated with open systems.

Key to the development of the new products was Philip M. Neches, 38, a co-founder of the Teradata Corporation in El Segundo, Calif., whom NCR hired last year as senior vice president and chief scientific officer. NCR executives joke that Mr. Neches has turned the company into a 106-year-old start-up business. Analysts note that his hair is a lot shorter these days than when he was hired.

Teradata is a pioneer in the use of parallel processing, a technology until recently limited to scientific applications and supercomputers for commercial tasks like managing data bases. In parallel processing, tasks can be performed more quickly by dividing them among multiple computer processors operating in parallel. In Teradata's machine, and NCR's new line, these are standard microprocessors made by the Intel Corporation, which keeps down costs.

In the first of three major product announcements, NCR will introduce its new 3000 Series computers today, spanning seven levels of performance. From using one processor to 4,000, at prices of \$2,500 to \$10 million, the line ranges from tiny portables to room-filling "massively parallel" multiprocessor machines. In October, NCR will introduce software called Cooperation, which is designed to link all data processing of an entire company, and new networking software and hardware to make the links invisible to computer users.

NCR's commitment to open systems will give the company a leg up on competitors that have clung to proprietary hardware and software, analysts say. But they add that as NCR attempts to move into new markets, it will come into more direct competition with the likes of I.B.M. and Digital, and it may not always win. Still, most agree that NCR's moves will pay off in the long run.

"We were the very first of the major vendors to preach the concept of open systems," Mr. Exley said. "Now that's an idea that is largely sold."

Can Move Faster

Like I.B.M., Digital and other companies that built their fortunes on proprietary computing systems, NCR initially limited its open systems to relatively low-end machines, like its Tower microcomputer, introduced in 1981. Unlike those companies, it is now urging its high-end customers to move from its proprietary equipment to the new open systems.

"They are positioning themselves to be ahead of the curve" in the move to open systems, said Ulric Weil, an analyst with Weil & Associates in Washington. NCR can do this more rapidly than I.B.M. or Digital because it never acquired the large installed base of mainframe customers those companies have. "NCR smartly abandoned the mainframe years ago and can now audaciously and aggressively pursue what is coming next," he said.

Despite a conservative image probably derived from its age and its headquarters in Dayton, Ohio, far from California's Silicon Valley, NCR is not afraid to innovate or to import talent.

In addition to hiring Mr. Neches, NCR earlier this year formed an alliance with Teradata to develop the high-end machines in its product line and acquired 10 percent of the 10-year-old company.

Mr. Neches said he made the move to NCR because the larger concern gave him the ability to pursue a program beyond Teradata's resources. "If you look at the scope of what we're doing, we're talking about reformulating the basis of computing," he said.

NCR's new line uses Intel 80386 and 80486 processors throughout, so a program written for one machine can run on any of them. In addition, the new computers can all run not only Unix, the industry-standard operating system developed by A.T.&T., but also the Microsoft Corporation's MS-DOS and OS/2 operating systems, and the Santa Cruz Operation Inc.'s version of Unix for microcomputers. Of course, more complex programs will call for the bigger machines.

By adopting these standard operating systems, NCR gets around the major hurdle facing most new computer systems: lack of software. Mr. Exley estimates that 35,000 programs already run on the new system, and said the commitment to standards would encourage major software producers to write new programs for NCR machines.

'A Ton of Software'

Peter Labe, an analyst with Labe, Simpson & Company in New York, agreed. "There will be a ton of software no matter what NCR does," he said. "Open systems today are a minor part of the market and may never be a majority, but there's a lot of room to grow between 5 percent" - his estimate of the market using open systems - "and 30 percent" of the market, he said. "That's going to put these people on the map."

NCR also hopes to have an impact with its new software and networking. The Cooperation software, rather than an application in itself, is designed to make a company's existing programs and data available "enterprise-wide," across many different computers. It employs "client-server" architecture, where jobs are split between small client computers and large servers.

Can Suit the Customer

"The object is to make all of the resources of an organization available at any appropriate desktop," Mr. Exley said. NCR also aims "to allow a user to adopt Cooperation while preserving all of his current systems," he said. Like NCR's new hardware, Cooperation is "scalable," meaning it can be had at different levels of complexity to suit a customer's needs.

NCR's third new product is an open network system, which, like the new computers, adheres to industry standards throughout and manages links between multiple smaller networks in an organization. The object here is to make a network that is "invisible" to most users, but very accessible to a company's computer systems managers.

Analysts say the new systems may take some time to pay off, partly because they are entering the market during a slow period for the computer industry, and partly because NCR will have to pitch them to new customers if it is to grow significantly.

NCR's revenues and operating earnings have been relatively flat since 1988; earnings per share have grown because the company has bought back stock. The company earned \$412 million in 1989, or \$5.38 a share, compared with \$439 million, or \$5.33 a share, in 1988.

A 'Snuggle' Strategy

"The tough part will be marketing, to try to get into corporate customers which don't think of NCR in the same breath as I.B.M. and D.E.C.," said Steven Milunovich, an analyst with First Boston.

NCR executives say they know better than to go head-to-head with I.B.M. where the giant is strong. They will be happy to pick up incremental increases within the areas

where NCR dominates and expand out of them gradually. Mr. Neches calls the strategy "snuggle, don't struggle."

"The strategy's not built on converting people, grabbing people's applications and running them on our hardware; that's historically been a struggle," Mr. Neches said. "We want not to change the existing environment, but to connect to it and extend it."