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Linux Moves In On The Desktop

As more companies switch, Microsoft is hustling to protect its crown jewels

The doctors at Capital Cardiology Associates, with seven offices in New York and Massachusetts, pride themselves on latching on to the latest medical gizmos. But now they're pioneering in a different tech realm: computers. Employees at the 160-person company have traded in PCs running Microsoft Corp.'s ([MSFT](#)) Windows for machines using the up-and-coming Linux operating system.

It spent more than \$400,000 on a complete tech upgrade, but its president, Dr. Augustin DeLago, believes the investment will pay off handsomely over time in better security for patients' records and easier management of technology. "We're a small company, but I think we're out ahead on something," says Dr. DeLago.

Indeed, this could be the start of something big. After a long gestation period -- and against all odds -- Linux is finally gaining a toehold in Microsoft's backyard, office desktop computing. Market researcher IDC expects to announce within weeks that Linux' PC market share in 2003 hit 3.2%, overtaking Apple Computer Inc.'s ([AAPL](#)) Macintosh software. And the researcher expects Linux to capture 6% of this market by 2007. That's still tiny compared with Microsoft's 94% share. But it's clear now that Linux is becoming a viable alternative to Windows on desktop and laptop PCs for companies willing to put up with the trouble of switching.

Linux has made major strides in the past few months. In November, China declared it the operating system of choice. Starting on Jan. 1, the Israeli government plans gradually to replace desktop Windows with Linux. IBM ([IBM](#)) CEO Samuel J. Palmisano late last year challenged his 319,000-employee company to move entirely to Linux PCs. And now, analysts say, dozens of major corporations in the U.S., Europe, and Japan are sizing up Linux. In a survey of corporate buyers by Merrill Lynch & Co. ([MER](#)), 43% said they would consider replacing Windows desktops with Linux. "I had expected governments to be interested, but now it's on the radar of corporate chief information officers," says analyst Steven Milunovich of Merrill Lynch.

FOREIGN FANS. Why the excitement now? Several factors are driving the growth. Linux, an open-source software package, has been steadily getting better and easier to use. It can be bought for moderate prices -- or downloaded from the Net for free. Sun Microsystems Inc. ([SUNW](#)) in December introduced the Java Desktop System, which includes Linux, its StarOffice applications, a browser, and

e-mail. The package sells for less than \$100, while comparable Microsoft software for corporations costs more than \$600. And corporations like to have alternatives to Microsoft software. What's more, unlike Windows, Linux has not been a big target of virus writers.

Even though Linux PCs are generating a lot of interest, don't expect them to bust Microsoft's monopoly anytime soon. That's because Windows is installed on 400 million PCs worldwide. Linux may have gained a 24% chunk of the market for server operating systems, but that's sold to techies. For Linux to chomp into Microsoft's PC lead, companies will have to make complicated transitions that might wipe out the initial cost advantages -- switching not just operating systems but the applications that run on them. Tony Scott, chief technology officer for General Motors Corp.'s ([GM](#)) tech group, says GM will evaluate Linux, but "I'd be suspicious that it would be an easy swap in a large organization."

Clearly on edge, Microsoft is working overtime to protect its crown jewels. It has financed studies by market researchers that warn against switching to Linux, saying it could cost more over the long run. In high-profile cases, the software giant goes to great lengths to avoid losing out. When the city of Munich considered switching 14,000 PCs to Linux last year, Microsoft slashed its price by a third and dispatched CEO Steven A. Ballmer to woo the Bavarians. Munich went with Linux, but the city fathers may rue that day. *BusinessWeek* has learned that the project is behind schedule, bolstering Microsoft's message that Linux still isn't ready for prime time. "I haven't seen any of our customers use Linux in a mainstream way," says Martin Taylor, Microsoft's general manager for platform strategy.

Desktop Linux hasn't had any appreciable effect on Microsoft's finances yet, but it could do damage if Linux manages to grab a 10% share of the market, say analysts. IDC estimates that desktop Windows' share will shrink slightly, to 92% in 2007 as Linux' share doubles. Under that scenario, Microsoft would not only sell fewer copies of Windows than it might have otherwise, but it might feel pressure to lower prices, too, says IDC analyst Al Gillen.

If desktop Linux starts to hit Microsoft where it hurts, it will happen not so much among typical office employees but among specialized workers. These include stock traders, bank tellers, engineers, customer-service reps, and warehouse employees. They rely on just a few applications and need PCs that are simple to use and rarely crash -- which Linux can handle. Cole National Corp. ([CNJ](#)) uses Linux desktops in 1,700 Pearle Vision and other optical stores. And Delta Air Lines Inc. ([DAL](#)) says it's considering using Linux on its airport desktop terminals.

This market is potentially huge. Microsoft has estimated that while the number of typical knowledge workers in the U.S. is about 40 million, the broader market for desktop computing is potentially 117 million. So it's no wonder this is where Linux suppliers such as IBM, Hewlett-Packard ([HPQ](#)), Sun, and Novell ([NOVL](#)) are concentrating their efforts. While IBM previously focused on Linux server software, late last year its consulting unit started offering an array of Linux desktop services aimed at specialized workers.

Still, large corporations are reluctant to discuss their Linux plans publicly. That's partly because SCO Group Inc. ([SCOX](#)), a tiny company in Linden, Utah, claims Linux violates its copyrights and has threatened to sue users. They also don't want to commit to something that they aren't completely sure of yet. One major European bank that requested it not be named says it's considering switching tens of thousands of its desktop computers to Linux. "We want to be close to the front, but we don't want to be the pioneers with the arrows in our back," says one of the bank's CIOs.

In the short term, the best prospects for Linux on PCs are in governments and developing countries. Western governments are looking for ways to trim their budgets. At the same time, a number of governments, including Brazil and China, have adopted policies favoring the use of open-source technologies to help foster their own domestic software industries.

Think of this as the third lap of a 100-lap race. Desktop Linux could still spend a lot of time in the pits for repairs and tune-ups and continue to watch Microsoft zoom past. But if it gets up to speed, Microsoft better watch its behind.

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