

Supply side

The majority of IT vendors used to be very wary of Linux. Computer server vendors were worried about the effect on their own operating system businesses, while software suppliers feared that a raft of free products would undermine sales of commercial offerings.

Now, as customer demand for Linux grows, most suppliers are rushing to embrace it. Sometimes, the open source operating system has been found to fit perfectly with a supplier's strategy; more often, the decision to embrace it has been a painful, but ultimately rewarding one. Even many erstwhile opponents have managed to come terms with it.

Computer suppliers fall into two camps: those that ship machines that have another company's operating system (OS) and those that produce their own.

For the likes of Dell and Fujitsu Siemens, which fall into the former camp, a Windows machine is no different from a Linux machine – bar the licensing cost, which is passed on to the customer. However, such suppliers are finding that Linux helps them make savings in other areas.

Fujitsu Siemens, for example, is sometimes described as a Sun 'clone'. It sells Sun Sparc-based Unix machines running the Solaris operating system, but it also sells Windows on Intel (Wintel), Linux on Intel (Lintel) and even Linux on mainframes. The benefit of Linux, says Fujitsu Siemens, is that it cuts its development costs. "It started as a technology affair, but it quickly became a business affair", says the company's chief technology officer, Joseph Reger. "We relaunched our Linux efforts a couple of months ago. It's been paying off and growing like crazy." Now 30% to 40% of its Intel server business is Linux-based.

For IBM, Hewlett-Packard (HP) and Sun Microsystems, each of which has its own, highly lucrative version of Unix, Linux was clearly more of a threat. Yet both IBM and HP have championed Linux, investing billions of dollars in advancing its features for enterprise customers.

Even Sun, which seemingly had the most to lose, is introducing Linux-based machines into its product range. But its dilemma is typified by the way it continues to sell Solaris/RISC [reduced instruction set computing] based systems at the low end.

Analysts say it is unclear how profitable those low-end Solaris machines are to Sun. "Sun has always competed with Intel designs, and to some extent it is still thinking along those lines," says Andy Butler, a Gartner vice president. "Our expectation is that it will become more and more difficult for Sun to get real profits from designing, building and shipping small RISC/Unix servers."

Customer demand is forcing the IT industry to embrace Linux, whether it likes it or not.

Linux has been better news for IBM, which for many years sought a solution to one of its biggest problems: how to maintain confidence and loyalty in its various server platforms, including mainframes and AS/400s. "Linux has helped it achieve this goal," says Butler, by giving it a single, widely used operating system that can run on all its hardware, reducing development costs for both IBM and its customers, and giving customers a wider choice of applications.

"What Linux gives you is a cross-platform operating system," says Adam Jollans, IBM's worldwide Linux software strategy manager. "You can decide to run it on one server today and then, in the future, if you decide you need to run it on a mainframe, you can make that choice."

There are, however, limits to what Linux can do

LINUX-BASED SERVER VENDORS*

COMPANY	REVENUE	MARKET SHARE
IBM	\$197 million	32.4%
Hewlett-Packard	\$153 million	25.2%
Dell	\$120 million	19.7%
Others	\$139 million	22.7%
*First quarter 2003		
Source: Gartner		

today, and all the large systems vendors say that their own proprietary Unix flavours are still best at the high end. "For big operations, AIX is still better than Linux," says IBM's Jollans. "In the next few years, Linux will be able to do eight-way processing; AIX can do 32-way at the moment."

Craig Churchill, Sun's 'Edge' volume and solution manager for Europe, the Middle East and Africa, also argues that while the company has "always been very positive towards Linux" – an attitude he agrees the market may not always have picked up on – "we've always felt able to beat it with Solaris." Linux's main area of appeal is in its low cost of acquisition, he believes, which is why the company is focusing on low-end, low-cost Linux systems.

Far from damaging Solaris, Churchill says that the decision to offer Linux-based systems, has helped the company increase its Solaris customer base, as companies use Linux systems in conjunction with

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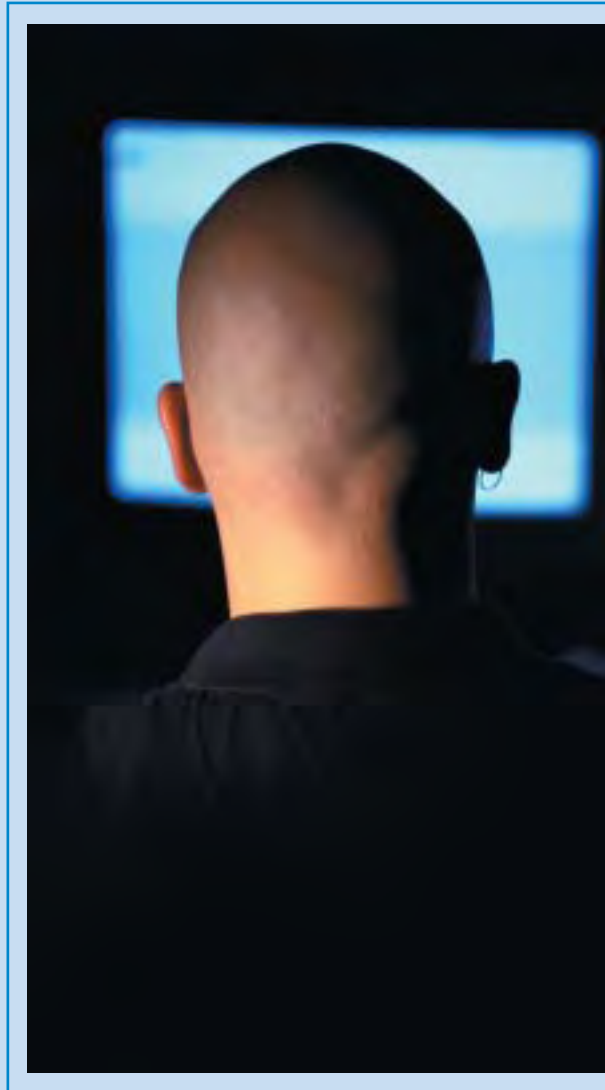
higher-end Solaris machines. However, Russell Coombes, HP's Linux director, says Sun's Linux message is not enough. He claims that 90% of the interest in HP's Linux-based servers comes from Solaris users, rather than people wanting to migrate either from Windows or an HP-UX environment.

HP pitches Linux as a good choice for machines with two or four processors, with HP-UX a better option for more involved work. "We have to be careful," admits Coombes. "We could really promote Linux and it could be seen as cannibalising our HP-UX installed base or it could be seen as attacking Microsoft. Linux is very strategic to HP now; we are evangelising it, we have many customers and ISVs moving to Linux, so we have to make sure we are part of that whole movement."

With all the major systems vendors now adopting Linux-friendly strategies, they all agree that the best way to garner loyalty among their customers is to differentiate themselves through their hardware, services and support.

"What we offer on Intel are enterprise features, such as systems management tools on heterogeneous environments," says Fujitsu Siemens' Reger. "There will be a part of the Intel server market – the low-end, price-sensitive portion – where differentiation will not be possible, not asked for and not required by customers. But for those parts where it really makes a difference, it's important that we differentiate." ⓘ

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Linux distributors

JUST as Linux was beginning to be taken seriously by corporate IT decision-makers, fear of a repeat of the Unix fragmentation of the 1980s drove many potential customers away from Linux and encouraged many would-be resellers, such as IBM and Oracle, to look for a de facto standard distribution.

"We went to all the Linux distributors and asked which of them was serious about the enterprise," says Wim Coekaerts, principal member of Oracle's Linux kernel group. "Red Hat was the first to come forward."

The Linux distributors have since clubbed together to develop the Linux Standards Base, a way of ensuring that distributions and software remain compatible by placing constraints on what may be altered in a Linux distribution. The result now, according to SuSE Linux's strategic alliance director, Malcolm Yates, is that enterprise users generally do not mind which Linux distribution they use. "Fragmentation concerns disappeared about two years ago," says Yates. "People don't ask that question any more."

Linux distributors have little chance to differentiate themselves technically. But many have found ways to stand out. TurboLinux, for instance, does well in parts of the Far East because of its enhanced text-handling capabilities for East Asian languages.

Red Hat and SuSE work with hardware vendors to ensure their distributions are shipped with their servers and have features that the server vendors need. These features are then fed back into the open source commu-

Application developers

THE world's major software developers have been watching Linux's progress with a mixture of interest and dismay.

Some are keen to play down the significance of Linux. "CA has always had a credo of supporting whatever hardware our customers use," says Marcel Den Hartog. "Linux is just another platform."

Martin Tenk, SAP's head of technology in the UK, takes a similar line, saying that Linux is just another platform to support to give its customers choice, while technology consultant Steve Curtis of PeopleSoft, which has decided to port of all of its applications to Linux, says that the company is merely reacting to customer demand. "PeopleSoft has always said that it is being driven by the market, not leading the market. We look at where the market is going and we've seen a big shift in the last 12 months or so in the potential for use of Linux, with a lot more institutions actively looking at it."

Others, however, see Linux as an opportunity and are rushing to embrace it. After years of relative decline, Novell, a long-time champion of proprietary standards, is launching a comeback via open standards. "We're giving customers independence around the operating system," says Novell's UK managing director, Steve Brown. "Customers can run NetWare [Novell's network operating system] on Linux, with the robustness, scalability and reliability they expect." New customers will not have to worry about being locked into NetWare, he says, and will have Novell's support and engineering organisations behind them to ensure enterprise-level reliability.

Oracle too sees Linux as wholly positive. "It's a really great operating system. A really great solution," gushes Wim Coekaerts, principal member of Oracle's Linux kernel group. "We have full deployments around Linux and it saves us a lot of money."

While Oracle does not promote one operating system over another, the company has been doing all it can to assure customers that a move to Linux is practical as well as technically possible. "There was still a fear in big customers. They needed something supported in the long-term. So we created 'Unbreakable Linux', in

which we support both Oracle products and the operating system." Customers can go to Oracle instead of their Linux distributors and Oracle will support them, even to the extent of getting Coekaerts' group to write Linux bug fixes. "Now our customers are no longer worried," he says.

The next phase of Oracle's plan is to ensure other companies' applications are available on Linux. It is investing millions of dollars to encourage independent software vendors to port their software to Linux. It is also making much of the fact that its own business runs on Linux; at the recent LinuxWorld trade fair in San Francisco, Chuck Rozwat, an Oracle executive VP, said the company had successfully moved most of its IT infrastructure to Linux, one year after CEO Larry Ellison issued an order to do so.

The biggest potential loser in all this is Microsoft. It has already promoted the Finnish upstart to Public Enemy Number Two – second only to a gloomy economy, according to chief financial officer John Connors. Customer interest in Linux has forced Microsoft to make concessions. It has agreed to share the Windows source code with some of its trusted partners, is offering massive discounts to avoid losing large deals, and is even giving away some of its software.

In contrast to operating systems vendors, most application developers have little to lose from Linux's adoption. And with Linux now an almost unstoppable movement, even companies whose products are jeopardised by Linux's success are choosing to include it in their product catalogues.

Many continue to play down Linux's capabilities, however. As Martijn Dekkers, technical architect at services company Computacenter, points out: "Vendors with a stake in the data centre are pushing Linux primarily at the edge. Vendors with an investment in the desktop say it only works in the data centre. They're all trying to push Linux away from where they're trying to play. But I think if you take an objective view of the market, you will see Linux is playing a good game everywhere."

nity, where any other vendor can take advantage of them. SuSE, for example, has taken some of the code for the next version of Linux – version 2.6 – and rewritten it in their current enterprise server, a process called 'back-porting'. Since they are now open source, Red Hat is likely to include them in the next version of its server.

While technical differences may be subtle, distributors have typically used different levels of support to build a following in the enterprise market. But their services businesses are being squeezed by long-established hardware and software manufacturers.

Major vendors are increasingly offering Linux support themselves through their services groups. It is often amounting to little extra effort for the big suppliers – many had already developed in-house expertise to

deal with customers with existing Linux installations – and with access to the source code, companies like Oracle can even re-write Linux to make it work the way they want and fix bugs before the distributors.

DATA CENTRE OPERATING SYSTEM MARKET 2007



Source: Meta Group