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AIX EXTRA: The Case for Linux

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You know a technology or OS has become mainstream when major vendors start investing in it and major magazines, such as Business Week, start doing cover stories on it. Such is the case with Linux.

In 1991, Linux began as a student hobby for Linus Torvalds. Today the kernel is still developed under the GNU GPL and the source code is freely available to anyone who freely shares any improvements they make. It's estimated that more than 10 million computers worldwide currently run Linux. An IDC analyst report released late last year claims Linux has a 7 percent market share, although it's unclear whether this includes all the systems installed from free downloads of the various Linux versions.

In the past four years, Linux has spread its wings in the commercial world. Previously many Linux users were researchers or university users, but things have changed so dramatically that Gartner, in its March 10 CIO Update, predicted that Linux will handle more than 50 percent of data-center workloads by 2008.

Today Linux is everywhere, taking off in the embedded systems area and even appearing regularly in television commercials. Right now Linux is in data centers—on servers as well as included in many of the systems needed to support server technologies. For example, the Hardware Management Console (HMC) for the IBM eServer pSeries is a Linux system, as is the Console Server for VMware. Additionally, Linux is showing up in our day-to-day lives—if you have a Sony Playstation 2, a newer Volvo car, a TiVo or a Linksys wi-fi router then you have Linux in your house.

So why are companies and manufacturers embracing Linux? In 2002, CIOs and CTOs cited the open-source OS's Total Cost of Ownership (TCO). Linux was seen as significantly cheaper than Microsoft Windows, due to the latter's licensing costs. The open-source nature of Linux is designed to help protect companies by decreasing their reliance on proprietary hardware and/or software and the vendors that produce these solutions and allowing them to continue using older hardware that doesn't support newer versions of Windows. This also makes Linux very extensible—if no one else has written code that's needed, you can always write it yourself.

But, interestingly enough, companies now say they're moving to Linux for different reasons. The number one factor, according to recent surveys, is reliability and stability. Performance and security are up there, too, and TCO still ranks fairly high. Another key reason is viruses. More than 70,000 viruses target Windows systems; thus far, only 100 or so target Linux. This isn't to say that a Linux system can't get or spread a virus, but it's much less likely.

Major companies like TradeSignals, Reuters, Amazon.com and E*Trade have or are starting to integrate Linux into their data centers. The [U.S. Postal Service now uses more than 6,000 Linux machines](#) to read addresses on envelopes. Historically, Linux was used just for servers, but it is now making headway on the desktop; the [Open Office programs](#) have made this a realistic option.

IBM's relationships with the major Linux vendors and the advent of on demand and grid technologies will also help boost Linux popularity. Linux is available on all IBM eServer platforms and can coexist with other OSs on the partitionable systems.

Should you care about Linux? If you work in IT, then the answer is yes. Linux is most likely already in your data center and probably in your house. It's used to create the movies you see and helps your mail get to the right place. Linux is definitely a part of your future, so it makes sense to embrace it and understand it.