IBM's love-affair with Linux has entered a more mature phase, says Rob Buckley. Rather than adopt the mantle of revolutionary, IBM is using its sober, business-oriented company persona to get Linux into organisations

Big penguin blues

or Softly Softly Catchy Penguin

A recent film called "The Corporation" asked the question, "If a company was like a person, what kind of person would it be?" Ask that question about IBM and you'd probably conclude it was a mugging victim, judging by its behaviour towards Linux since SCO first sued it for copyright infringement in March 2003. Sure, it's holding up and acting like everything's fine, but the trauma is genuine and the fire has gone from it.

At the end of 2000, IBM's then-CEO Lou Gerstner stood up and proclaimed that IBM was going to invest US$1 billion in Linux in one year because "Linux can do for business applications what the Internet did for networking and communications" - that is make computing and easier and free from proprietary operating systems. It was the kind of enthusiasm for Linux that endeared the company to the open source and free software community and ensured it a place in every enthusiast's heart - the corporate champion of Linux that would stand up for the operating system and get it into companies throughout the world through the front door rather than the back.

Now the message from IBM is "Linux is good, but so are lots of other things". Promote Linux on the desktop? Well, we'll look at your company, see what its business needs are, look at the range of devices being deployed, and determine if Linux is suitable as part of an overall strategy. How about Linux at the back-end? "We think the sweet spot for Linux is going to be in two- and four-way systems, but even with the 2.6 kernel, it won't scale much beyond eight-way. AIX, however, can scale up to 64-way and even 128-way and is a better choice for those situations."

SCO's strike against IBM was a body blow, and although Big Blue is big enough to look after itself, it has become decidedly wary about over-promotion of Linux. There are, of course, other factors. The Linux fire at IBM was Lou Gerstner's and while his replacement Sam Palmisano is an excellent CEO, he's no Gerstner - or at least his priorities are different. The Linux hype of 2000 has died down, replaced as inevitably it had to be by cold reality - the full stack of enterprise apps for Linux wasn't mature enough at the time for instant, painless migration, and in many ways, it still isn't, even though progress has been great. As the revolutionary zeal has settled down, so, too, have additional concerns within the business kicked in. AIX, the company's longstanding Unix system, is still a big earner for IBM and throwing it away entirely would not only lose the company plenty of revenue, it would also lose some customers with big budgets to HP and Sun, whose Unix systems scale onto those high-end systems, too.

The final brake on IBM's Linux advocacy is the not-so-little problem of Intel. IBM, much like Sun, doesn't want to rely on Intel for its chips. It would much rather have every server running on its own chip, the 64-bit Power5. Spend too much time at the outset promoting Linux on Intel for the server and the chances of Linux on Power ever becoming a potential server standard will disappear into the distance. Ensure that the foundations are there from the beginning for Linux on Power, and if Intel continues to drop the ball on 64-bit processors, Linux on Power could become the more popular choice for servers within organisations that need power but at a low cost.

THE QUIET REVOLUTION

So IBM's love-affair with Linux has entered a more mature phase. Rather than adopt the mantle of revolutionary, IBM is using its sober, business-oriented company persona to get Linux into organisations, through both the front and back doors.

"IBM has been quite clever at getting Linux into the data centre [server farms that need to be highly reliable]," says Rakesh Kumar, an analyst at Meta Group. "Microsoft has been trying to get into the data centre, but they've not put anything in place around sales and support to nurture the egos of data centre managers and CIOs [Chief Information Officers]. IBM, on the other hand, has used its mainframes to get Linux into the data centres." By letting CIOs and other IT directors invest in something they know will work and can rely upon and which is anything but revolutionary, IBM has managed to get Linux into an area it might have had problems selling Linux servers to.

A similar issue has been confounding efforts to get Linux more widely adopted in local government in the UK. Here IBM has been using a more long-term strategy, relying on a report from the Office of Government Commerce into the viability of open source software to support the view that Linux can be relied upon for mainstream use. "We did the trials with the government because we knew what the answer was going to be before it started," says Jeremy Wray, business development executive public sector, EMEA, at IBM. "What we were trying to achieve was to show the case that it's okay to choose. In the public sector, there's a big lag

between the early adopters and the mainstream. There are very, very out-there people trying new things all the time in the public sector, really very good early adopters. But the rest lag behind." With an OGC report in hand to back up claims for open source as a viable alternative to proprietary software, IBM salespeople will now have a far greater chance of making Linux-based sales in the public sector.

To get Linux into other organisations, IBM is relying on good, old-fashioned budget squeezes to do the work. Anything that can save money from the bottom line will appeal to most organisations, and so IBM is pitching many of its new servers at that level. Its blade servers are reasonably priced, Intel-based and capable of running Windows, Linux or Novell NetWare. But the company's OpenPower servers can only run Linux - and are priced more cheaply than comparable Intel-based servers. The high-end features of the Power chip, which include virtualisation, symmetrical multi-threading and built-in self-monitoring capabilities to warn of impending failures, should also appeal. A concerted effort by IBM to get its partners to develop for Linux on Power is yielding good results: there were 646 applications capable of running on Linux on Power in July 2004 and approximately 50 more each month since.

It won't be until SCO is "banged to rights" that IBM once again feels safe enough to put its enthusiasm behind Linux as it did in 2000. Until then, it will continue with long-term, slow-moving strategies that befit a long-term, slow-moving company. But who knows? They may even work better.

Strategy talks

Adam Jollans is worldwide Linux software strategy manager for IBM. He spoke to LinuxUser & Developer in November about IBM's attitude to Linux and its plans for the OS.

Has the SCO action affected IBM's Linux enthusiasm?

The net answer is no. In terms of investment in Linux, that has increased and continues to increase. In terms of the Linux tech centre, it was 250 people, now it's 600 people. I was looking yesterday at when [Lou] Gerstner said 1,500 people were working on Linux at IBM. It's now 8,000 people working on Linux.

Lou Gerstner pledged a $1 billion Linux investment. Is there a comparable figure now?

In 2003 we made $2 billion in revenue around Linux. Our Linux business has moved on from being an emerging business opportunity to a mainstream business. IBM was a $90 billion company last year, so this is a significant part.

You focus on two main Linux distributions, Red Hat and SuSE, both of which carry high licensing costs. Do you work with any distributions that don't carry those licensing costs?

We've got customers using Debian, Fedora, and so on. But if you run mission-critical apps on Linux, you want service-level agreements with four-hour response times or better because you're betting your business on Linux. For other customers, it depends on how they want to be supported. Sometimes, in education and government, customers say they will do their own support, in which case that will reduce the cost of licensing.

IBM cites Linux's portability as one of its main attractions, yet you're now pushing Linux on Power when you're more or less the only company using Power chips in servers. How do you square those two things?

Power itself is an architecture used in a number of different environments and there are IBM Power chips inside the G5 Mac and the Xbox. On the server side, it's primarily IBM, but we've done some work opening up Power so other people can use it. It's going to a more open market. It becomes easier as you abstract applications. Java started that and Linux provides this abstraction, too.

You work closely with the OSDL and other standards organisations: what is IBM pushing to see in Linux?

We want Linux ready for enterprise applications. That's why we're interested in SMP [Symmetric MultiProcessing], security, RAS [Reliability, Availability, Serviceability] characteristics, kernel debugging and so on. With the Free Standards Group and the Linux Standards Base specification, we're working out how to make software easier to run at all levels of Linux. Applications are key to an OS and if we make it easy to get the maximum reach on Linux for the minimum investment, that's a good deal for ISVs (independent software vendors). We have over 300 products and three different platforms: Intel, Power, and Z-series (IBM's mainframe platform). We've already got 300x3 lots of testing to do. We also support more than one Linux distribution to provide choice in marketplace, but you don't want another 200 or even another five or ten - it will kill you in testing and support.