

# Unbreakable Linux

## The Oracle vision

**F**ive years ago, Linux was, while not exactly a pariah of the blue chip IT industry, at least something you wouldn't necessarily want your corporate image associated with. Times change – the last couple of years have seen much hype about Linux, and about how 'on-board' various industry stalwarts are with the OS – everyone, it seems, must have a 'Linux strategy'.

By any stretch of the imagination, you could hardly call Oracle a company in need of some headline-grabbing attention though, nor could you accuse the company that provides solutions to most of the leading corporations and governments of the world of living on the bleeding edge. And it seems that it is impossible to call their Linux strategy vague, woolly or insubstantial – the adoption of Linux at Oracle has been swift, successful and almost total, and has culminated in possibly their biggest marketing push of recent years – the 'Unbreakable Linux' campaign. Launched last year, it is still their biggest ongoing marketing push. But is Oracle really unbreakable? And why has Oracle adopted Linux so completely? We spoke to Oracle UK's Chris Ward:

**LINUX FORMAT:** Oracle has a good history of supporting Linux, as it has done for some years, but now actually actively promotes the use of Linux. What has happened within Oracle to make that change of stance?

**CHRIS WARD:** You're absolutely right. Oracle's Linux solutions are our number one technology push, certainly in the short term. It is our clear strategy to become a dominant player in the Linux marketplace with all of our software solutions – and that's everything from the database right the way through to the applications that we offer. Every current piece of Oracle technology is now available on the Linux platform – our applications server, database, collaborations suite, Java tools and enterprise applications.

The big change for Oracle is that clearly Linux is our fastest growing operating system for any deployment – also the stats are showing growth of Linux in the datacentre and of course the server market – IDC recently predicted almost 200% growth by 2006.

Clearly there are a number of areas that have changed in the Linux space to make this a believable strategy for Oracle. The first thing is the relationship with Red Hat. We have obviously already ported products to the Linux stack, but recently we have done worldwide support agreements both with Red Hat and the United Linux group.

**NICK VEITCH**  
investigates  
**Oracle's increasing  
profile and success  
at selling Linux to  
the Enterprise  
market**



**LXF:** And how active have Oracle contributed to the growth of Linux?

**CW:** What Oracle has been trying to do is improve – particularly those two flavours of Linux mentioned – in three or four main ways.

Input/Output – we've been contributing code to help the input/output mechanisms of those two distributions.

Clearly our clustering software, *9i Real Application* clustering, is really the heartland of our 'Unbreakable' stance. If you were to ask what software does Oracle offer to caveat this unbreakable message, it's the fact we can cluster machines together for scalability and redundancy. We've also made a lot of improvements to the scheduler for the Linux kernel, and also memory handling, for large-scale databases.

Those three or four areas were where Linux was struggling to offer enterprise-class features in the past. We know that from the many instances of massively parallel Oracle systems we run worldwide. So we've taken our expertise there and offered that to these distributions and open source.

**LXF:** Oracle developers have been working on kernel features then?

**CW:** Yes, we do joint developments with both Red Hat and the United Linux group. Their developers sit with ours now, and we have opened up information on access methods as to how the database works with operating systems.

Linux has become a tier one development platform for Oracle development. So we write our technology on Linux now, as well as obviously deploying it in our own business. Previously it wasn't tier one.

**LXF:** What's brought that about then – just the emphasis on the new Linux strategy?

**CW:** It is the whole emphasis. It's about the cost savings people are taking through to business, the change in the market space and the ability of the Unix market to take on board skills and deploy them in the Linux world – the whole profile of Linux has just shot up right the way through the Oracle organisation.

We have a clear strategy now – when we develop products we will develop them on Linux, on two flavours primarily of Unix, and obviously Windows.

The other unique thing is that we write across multiple operating systems, we don't just write for one and port. It's a really good message for Oracle to say "actually, we

believe in this, we're committing developers right the way from scratch to write technology for Linux".

**LXF: And Oracle uses Linux internally?**

**CW:** A number of our new businesses, for example our hosting business – we offer a hosting service. For example if you had a company with 300 employees and you wanted to use financials and purchasing and accounts payable, you could rent that service from Oracle as a hosted service. A lot of people do that. That business, which is a new business for Oracle, with a stated goal of \$1 billion within 18



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months, and we're well on the way to that – that business runs on Linux. The datacentres we've built, we've got 85 machines clustered, running Linux, providing worldwide hosting capabilities. So we're reinvesting and using our Linux technology to run new services from Oracle. That's one that is often not noticed, because the client is buying a service and doesn't know or care what's underpinning it.

**LXF: Is that merely a cost decision, or would it be true to say that Oracle on Linux outperforms other platforms?**

**CW:** Cost is a huge benefit here. Not just in licensing costs, but in the ability to use non-proprietary hardware. So there are two or three big angles to cost. We are seeing huge

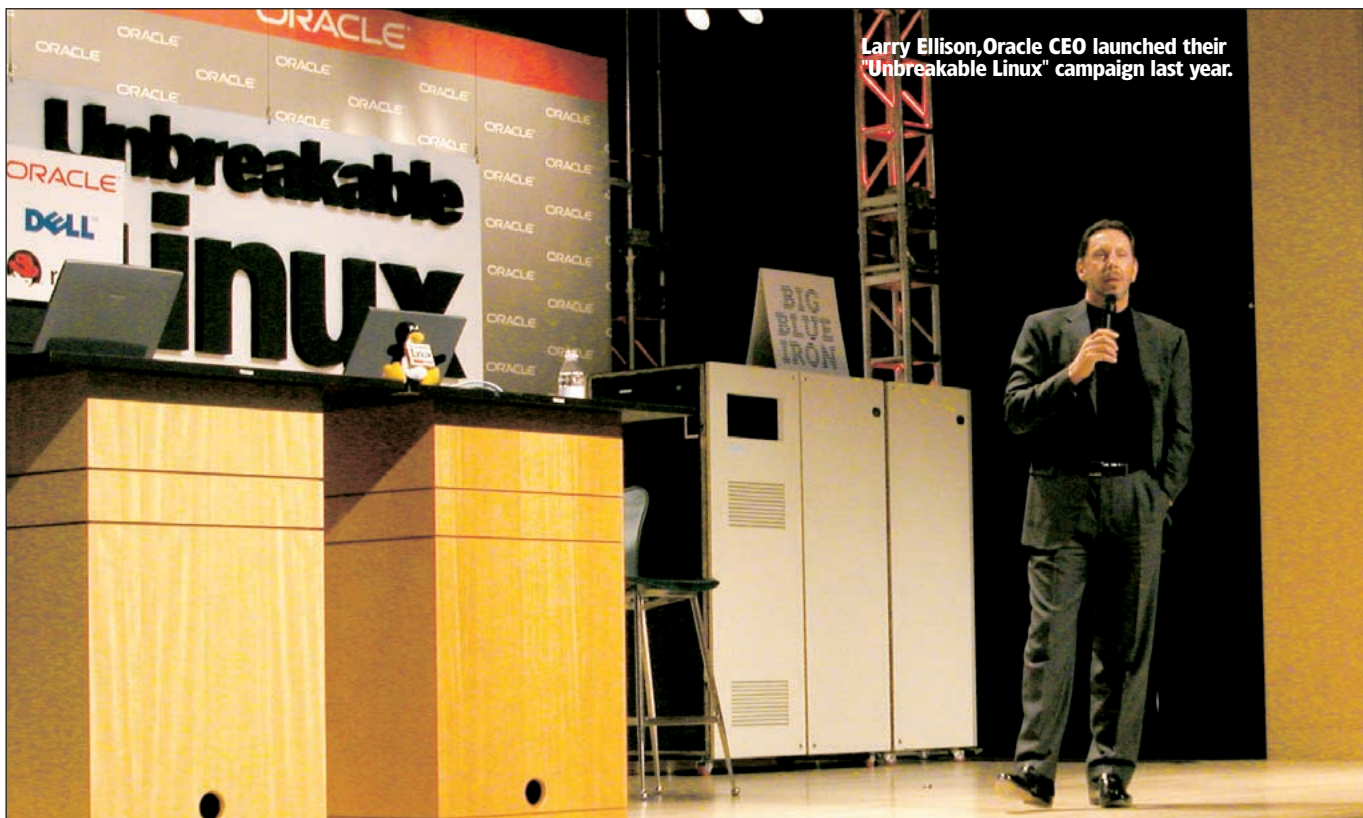
improvements in performance, clearly you have to say more advanced processors have come into play as well, but we are seeing definite improvements. I would add that, in addition to our partnership with Red Hat and United Linux, one of our big technology partners in this is Hewlett Packard. We see the growth in their Linux business to being fundamental to the Oracle economy as well. It is our ambition to push out lower cost computing and push businesses forward. Quite clearly it's in competition to Microsoft.

**LXF: You've mentioned United Linux a few times. Obviously one of the reasons for creating that group was to lower internal development cost, but also to make a clear platform for proprietary developers to work for. Has that been a factor in partnering with United Linux as well as Red Hat?**

**CW:** I think Red Hat's strategy is slightly different to that of United Linux. Red Hat has been good in that for commercial software, you can't be releasing it every month, which is why they have split Red Hat into the consumer flavour and the enterprise server version. United Linux is a lot smaller in terms of market share at the moment. Oracle can then certify and test correctly on these versions – we could never certify across every distribution of Linux in the world and we do not try to do that.

**LXF: We don't know anybody that does!**

**CW:** I think it would be impossible. I think the maturity of the Red Hat organisation, and obviously United Linux, has certainly altered in terms of how they support their customers, how they manage release cycles, porting, bug-fixing. And how they use our support centres across the world.



Larry Ellison, Oracle CEO launched their "Unbreakable Linux" campaign last year.

## GROWING WITH LINUX

**LXF:** Obviously there are other database vendors in the Linux space. Who would you see as your major competitor?

**CW:** It has to be IBM. IBM and Oracle really are aiming at this marketplace. We don't see the open-source database solutions as being competitors. MySQL and those types of products, we don't see them as being competitive. There is an awful lot to knowing how to run massively scalable solutions and Oracle clearly have that.

**LXF:** I suppose in many ways the open source solutions are focussed on different markets.

**CW:** They are. We certainly respect them. We think people that are contributing to open source are doing so very well and we certainly actively support that. It's nice to see new thoughts and ideas.

The relational world is very established and Oracle is the

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dominant player worldwide. We are often asked "do you think you can sell this" in relation to open source databases, and we think that when you have value and you can prove and demonstrate security and trust with clients you can sell that.

**LXF:** As the market changes, and certainly the enterprise customer base for Linux has grown dramatically in the last few years, customers coming to Linux, while they may be interested in the costs savings in coming to Linux, and the fact that they are more free to choose technologies, they still appreciate the support and services that possibly only a very large corporation can give them...

**CW:** I agree. Oracle provides an integrated solution. Yes, we have our database and the application server, but bring on board our application suite (a major set of applications for doing financials, supply chain, logistics, planning) and you've got everything to run the back-end of a business, basically. Because we are a major application vendor, bringing that to the Linux platform really starts to break the mould and say that Linux is absolutely ready. We have companies like Dell running Oracle on Linux. We're moving our own back-end to Linux. There are lots of big clients out there – CERN and Merrill Lynch to name just two.

**LXF:** Obviously the Linux part of your business is the fastest growing area. Do you know how many of those customers are new to Oracle, or existing customers migrating to Linux?

**CW:** There is definitely a large proportion of the install base looking at this. Obviously you can move systems running Oracle on Windows to Oracle on Linux very easily and take away cost. It is the same product. There is a movement of the install base, but Linux has given us new clients as well.

We've had over one million downloads of Oracle on Linux in the last 18 months. I don't suggest that they've all deployed it, but it demonstrates the interest. That's a huge figure; it's the number one requested download from



Oracle. We have 4000 ISVs using Oracle database and Oracle Application Server on Linux, and 550 of those have certified their own applications for Oracle on Linux. So you can see that the Oracle channel is picking up on this too.

**LXF:** It isn't just a case of Oracle supporting Linux then, everyone else in the Oracle community is interested...

**CW:** The Oracle economy is turning to Linux, yes.

**LXF:** If I can bring up this whole idea of Unbreakable Linux – is that not overstating the case slightly?

**CW:** Two things. Unbreakable – we've had a lot of heat over this term. What we are saying is not that the solution will never fail. What we are providing is a way of designing systems that maximises the possibility of not failing. A bit of a wordy way of putting it.

Basically, you haven't had the opportunity to create elegant clusters managed by software, which are relatively easy to manage and look after. If a single machine fails, Oracle keeps running, if you need more power you can add that. Clustering has more or less been a proprietary hardware solution before.

With the security aspects of Oracle, it's clearly a highly secure environment – it's been written for the FBI and governmental bodies; those are the types of organisations that have helped design this software. There are a number of areas we believe you can use Oracle, and you can't break Oracle for the common reasons.

**LXF:** In the Linux enterprise space, where are the big growth sectors for Oracle?

**CW:** It is across the board, but three areas in the UK are public sector, financial services and retail. Those three markets have been very active. That's based on my experiences of talking to customers.

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**LXF:** Is there anything that the company will need to address in a different way for the Linux market in the future?

**CW:** We have addressed support which was a major issue for clients thinking about Linux – if you run Oracle on Red Hat or United Linux, Oracle will pick up the support call across the world using the 'follow the sun' principal.

I think the market has matured a lot. This is what enterprise customers want – a solid mature relationship with vendors. If you were a customer who had a fault running Oracle or Red Hat for example, you could put a support call in and the Oracle representative will try and fix it, regardless of whether the fault is with Oracle or Red Hat. We have 24/7 support, which is important. That was a barrier to people taking Linux solutions before. ■