

Novell gambles on growth

After years of dedication to the proprietary crusade, networking pioneer Novell has announced a dramatic shift in emphasis. **ANDY CHANNELLE** discovers what caused this Damascene conversion and its implications for existing and potential NetWare users.

Presently, it wouldn't be unfair to suggest that Novell's star is on the wane. From a position of strength in the 1990s, the company has seen its foundations undermined and a once loyal user base diminished – though still hovering around the 90 million mark – thanks to the perception that its products have failed to move with the times. When you factor in the surge of interest in Linux and the reaction the Open Source development model is inspiring in Microsoft – among others – it is no surprise that things at Novell had to change.

The first public demonstration of this new attitude occurred at Novell's annual BrainShare convention where NetWare users and developers have gathered for the past 18 years to receive the wisdom of Novell's CEO and product managers. The 2003 event contained the usual product hyperbole and jokes at Steve Ballmer's expense, but also a genuinely significant strategy change for a company that has persisted in pushing proprietary technologies long after, as CEO Jack Messman candidly admitted, their customers had given up on them. In his opening keynote address Messman said it was time to move on, citing Novell's dogged determination to stick with IPX while the world opted for TCP/IP.

"We have always focused on interoperability to give our customers flexibility, but we've stuck with a few proprietary standards too long." The company, he said, has learned its lesson. "We're not going to make those mistakes again. We will embrace the Open Source movement and we will make significant contributions to it"

For the 6.5 release of NetWare, Messman announced a raft of changes to make the product more Open Source-friendly, including the addition of a GroupWise client for Linux

and support for technologies such as *Apache*, MySQL and Perl. These extensions, he said, would “free users from their proprietary shackles.” It would help companies realise the true value of their information and share it across platforms, devices and architectures in a secure manner.

The new openness of NetWare 6.5, though, is just a stepping stone to a more unequivocal embrace of Open Source due in the next iteration.

“What is NetWare’s future migration path? What is Novell doing to protect its customers’ investments in NetWare? What about migration to other platforms?” Messman asked the auditorium. “We have services that sit on top of the NetWare kernel that we’ve been developing for years. Services such as file and print, messaging, resource management, web development services and many others. The current opportunity for Novell regarding Linux is to provide these kinds of services for Linux. We know a lot of you are thinking about Linux and we’re going to support you in making Linux a viable data centre platform.”

To rousing applause he announced: “In NetWare 7.0, the services that you’ve come to know and love will sit on both the NetWare and Linux kernels.” A dramatic shift. And while Messman was anxious to press home that Novell were not “dropping NetWare, we’re adding Linux!” the significance of such a move should not be underestimated.

The only sour note sounded at the BrainShare conference was the fact that it had taken so long for Novell to make this leap. Meta Group analyst Earl Perkins said the timing could be problematic. “The big problem is we are looking at 18 months before they will have significant services working on Linux. It would have been better if they made this decision a little bit sooner.”

While applauding the decision to ‘adopt’ Linux, Peter Strifas, who is responsible for 60 NetWare servers at a New York University hospital, told ComputerWorld.com that it would have been better if Novell had simply put everything on Linux. “The biggest problem we’ve been having lately is facing hardware vendors that don’t have NetWare support. For example, HP doesn’t support NetWare on its server blades. That was just enough for management to ask why we were keeping this stuff around.”

The customer is king

Novell spokesman Bruce Lowry told Linux Pro that the conversion was the result of what Messman called a change from a lab-focused approach to one based on what customers wanted.

“We’ll do what our customers want, which at the moment means developing services on NetWare and Linux. The next version of NetWare will run on both kernels, providing choice.” For the foreseeable future Novell would be a dual-platform operation, and the company would not abandon its loyal users, or its investment in NetWare. “NetWare is a very powerful kernel. It provides features for stability and scalability that other operating systems don’t currently match. So we’re confident that we’ll have a large customer base that continues to buy and deploy NetWare. It all comes down to fulfilling customer needs.”

Lowry said that while there was a lot of debate within the company about the best way to embrace Linux and

the Open Source development community, there was in fact no real discussion about whether it should be done. It was inevitable.

“Novell is embracing Linux because our customers are asking us to do so. Most of our customers have multiple platforms in their environments: NetWare, Windows, Solaris, and, increasingly, Linux. Analyst data clearly shows Linux as the fastest growing platform on the market.” But Novell’s own polling suggested that many users still had concerns about deploying Linux in ‘mission critical’ environments. “Our customers know Novell for providing unparalleled


“Novell is listening to its customers, who are wary of being locked into proprietary environments, and we’re responding to what they want.”

CHRIS STONE – NOVELL



security, scalability and reliability in networking services. They need these same capabilities to be able to use Linux in the data centre confidently,” he said. “So that’s what we’re going to deliver.”

So far, the response from users has been positive. Bruce Lowry: “Customers like this freedom to choose. They can stay with NetWare, move to Linux, or deploy both, all while maintaining their Novell environments. Some customers have said they don’t plan on tapping Novell’s Linux offerings because they’re happy with NetWare. Others have said they are eager to see what we deliver.”

As a sign of its commitment to Open Source, Novell coupled the launch of a new developer website, Novell Forge, with the donation of “the first industrial-strength, open source UDDI server.” Chris Stone, 

“LINUX IS IMMATURE”

That controversy in full!

AFTER THE BIG ANNOUNCEMENT, Novell’s ebullient CEO Jack Messman gave a few exclusive interviews. First up was Computerworld.com where he told Don Tennant that “Linux is an immature operating system right now. It hasn’t had somebody like Novell worrying about making it robust, reliable and scalable for very much time.”

He then moved on to PC Magazine where he told Darren Sarrel that the move to Linux would “give customers breathing room and comfort because Linux is not mature and Novell can bring 20 years of experience to Linux.”

Oops! Cue enormous flame-fest on

Slashdot (and elsewhere), a swift backpeddle by Novell and an open letter to the Open Source community in which Messman said he regretted the remarks. “Clearly Novell wouldn’t be taking this bold step if we didn’t feel Linux was a solid operating system with tremendous momentum in the marketplace. In fact, we believe Linux is quite stable and scalable. If we didn’t, we would not commit to using it with our NetWare 7.0 release,” he wrote. The response was widely regarded as ‘a good save’ by a company entering a new area and attempting, in the words of Bruce Perens, to “bring two widely disparate cultures together.”

COVER FEATURE **NOVELL**

company vice chairman, said this was simply a case of give and take: "The launch of NetWare 6.5, which makes significant use of Open Source components like *Apache*, *Tomcat*, MySQL and PHP/Perl, is a milestone in Novell's commitment to the community, so it only makes sense that we also increase our commitment to giving back, with the launch of Novell Forge and the Nsure UDDI server."



"There's no way to efficiently manage a network of any size without Novell at the heart of it"

JACK MESSMAN – NOVELL CEO

Bruce Lowry said that beyond the decision to donate such a fundamental web services application, it was also important to work within existing licenses, rather than following the common route of creating a whole new licensing regime. "Novell has no intention of adding to the plethora of Open Source licenses – as evidenced by our use of the BSD license for the UDDI Server release. Existing licenses will serve our needs just fine."

As well as consulting OSS luminaries such as Bruce Perens in the run up to the announcement, Novell enlisted the help of MySQL AB whose database will be bundled with NetWare 6.5. Perens said that as MySQL uses the same codebase for its commercial and GPL versions, Novell's license payments would be directly supporting the continued development of the GPL product. "Now, Novell is taking the next step, by producing its own free software under OSI-approved licenses, including a UDDI implementation and other facilities," he said. "They have taken some care to act as good citizens of the open source developer community." Marten Mickos, MySQL AB Chief Executive Officer, said they



had been working with Novell for some time in both an engineering and business capacity, and the move away from proprietary standards by such a large proportion of the network sector would provide significant benefits for all involved. For MySQL and the Linux development community as a whole, Mickos said, the bundling of the database would offer some serious exposure to a new audience. "There will be an opportunity to cross-breed applications between the 90 million Novell users and the 4 million MySQL installations worldwide." More specifically, for the first time Novell users will be able to web-enable their systems and build powerful apps built around Novell, Apache, MySQL and PHP/Perl/Python (NAMP) that leverage their existing infrastructure.

New platform

"The Linux and Open Source development communities will get a new platform to deploy their applications on. In essence, a new market of corporate customers is opening up to them." It all comes down to providing choice, and the expansion of Open Source development into the enterprise sector is an "ongoing and unstoppable trend".

"The enterprise sector is practically begging us to serve them and asking us to serve them in the platform environments they are used to. That's why it makes so much sense for Novell to bundle MySQL, and for MySQL to expand into the NetWare platform."

The version of MySQL that will ship in the NetWare 6.5 box, while being identical to the GPL edition, is governed by a commercial license which, according to MySQL co-founder David Axmark, allows developers who buy into the system to extend the database application without the requirement to redistribute their changes. Axmark told Newsforge.com that it was fortunate MySQL's push into enterprise coincided so well with Novell's desire to "get deeper into the Open Source community." The tentative links were soon bolstered, with Novell sending staff to the last MySQL conference, and doing

NETWHAT?

An explanation for the uninitiated

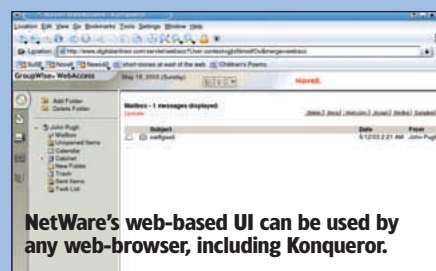
NETWARE IS A NETWORK-CENTRIC operating system providing transparent access to services such as file, print, directories, email and databases. Over the years, the core of the system has evolved to incorporate open standards and innovative features such as iFolder and iPrint. The former is a network-based storage solution developed to make accessing and, more importantly, synchronising files across a number of devices simple and secure. iPrint, meanwhile, attempts to provide seamless printing across any network, including the Internet, using a combination of Secure Sockets Layer (SSL) encryption for security and the Internet Printing Protocol (IPP) for management.

The most recent version of NetWare features a web-based management system instead of relying on the proprietary interface of the past. For integration purposes it is able

to deal with Appletalk Filing Protocol (AFP), Network Filesystem (NFS) and Common Internet File System (CIFS), all available over TCP/IP, for file serving.

The next version (6.5) will integrate both MySQL and Apache as well as new implementations of Perl and PHP to give users a complete web services solution.

Prices start at US\$995 for a 5-user, strong encryption license.



NetWare's web-based UI can be used by any web-browser, including Konqueror.

IN A NUTSHELL...

- NetWare 6.5 will include *Apache*, *MySQL*, *Perl/PHP/Python*.
- NetWare 7 (still 18 months+ away) will be a set of services running on either NetWare or Linux kernels.
- Linux and Mac GroupWise clients (Java based) will be included with GroupWise 6.5.
- GroupWare Server on Linux planned for later release.
- Donation of code to Nsure UDDI Server.
- Novell's Open Source efforts will be accessible via Novell Forge website.
- Novell will be committing serious development effort to other Open Source projects.
- Certified Linux Engineer programme to recognise IT professionals capable of working across Novell and Linux platforms.

'most of the work' to bring the system to NetWare, while MySQL took their presentation booth to BrainShare to give delegates a first-hand look at what they may soon be using.

While the release of NetWare 7 on Linux is scheduled within the standard 18–24 month Novell release cycle, the company was keen to 'set out their stall' and build on their – often overlooked – Open Source efforts of the past. "Having contributed for years to Open Source community projects such as *Apache* and *OpenLDAP*, Novell is today creating a more direct path to its OSS initiatives," the Novell Forge announcement said. Their first major Open Source code donation is the Nsure UDDI (Universal Description, Discovery and Integration) Server. UDDI is regarded as one of the core web services technologies, and Nsure brings simple and secure identity management to the standard. The project will be managed at Novell Forge, where developers can browse or download the source code for various platforms, discuss development issues and submit changes. The site will also host Novell's other OSS efforts including their NetWare port of the *Fast Light ToolKit (FLTK)* and *Digital Hospital*, an Open Source, platform independent version of the J2EE application used to highlight the effectiveness of *exteNd Composer* and *Director* for web services development. Project administrator Harish Krishnaswamy told us the UDDI project had received about 500 unique downloads in its first month.

And we can expect another "big" announcement soon.

"Our plan is to release open source projects related to technologies that are strategic to Novell," Bruce Lowry said. "Open-sourcing the UDDI Server – which builds on Novell's directory and identity management strengths – underscores this." He added that future Open Source projects would continue to utilise the company's strengths. Moreover, these wouldn't just be internal operations: "Novell will assign engineers to work on external projects as well that dovetail with this approach. We are currently assessing which projects merit our attention."

Active collaboration

The lack of a Novell GroupWise client is often cited as one of the stumbling blocks for Linux (and Apple's Mac OS) in Enterprise circles, so this element of Novell's new strategy has real potential to raise the profile of Linux as a desktop alternative to Windows. GroupWise is Novell's rival to *Lotus Notes* and *Microsoft Outlook*, providing calendaring, scheduling, email, instant messaging, contact and document management, and other workflow services across a Novell or Windows NT/2000 network. On the client-side, the only option previously was Windows. The new Linux client is Java-based and came to Novell via N-iX, part of the Newcomp Computer Systems group.

Novell chief technology officer (CTO) Alan Nugent said that ensuring the various platforms could 'play nicely' together would be at the very heart of the company's development strategy from now on. "The mixed technology found in customer organisations today requires savvy vendors who can tie it all together with proven and secure solutions," he said. "That's what we do best." Bringing GroupWise to Linux and Macintosh users would allow them to "collaborate security and reduce costs while deploying the desktop systems that make the most sense for their business."

LINKS FOR FURTHER READING

NOVELL CERTIFIED LINUX

Engineer training:

www.novell.com/training/certinfo/

Initial training information:

www.lpi.org

UDDI Server project

homepage:

<http://developer.novell.com/uddi/>

Novell collaborative

development space:

<http://forge.novell.com>

Liberty Alliance:

www.projectliberty.org/

MySQL AB:

www.mysql.com/

IDC analyst Mark Levitt said that Novell's recognition that 'not everyone does Windows' would pay dividends for the company. "Novell is broadening the audience for its secure and mobile/wireless collaboration with GroupWise for Linux and Mac users. This platform support, along with the functionality Novell includes as standard gives customers more reason to choose GroupWise."

On the server side, Novell also debuted an alpha version of GroupWare server running on Linux.

Education, education, education!

While talking about 'providing a migration path' to Linux, Novell are also keen to be involved in the sometimes complex issue of skills migration and cross-platform administration. In recognition of this potential skills gap, the BrainShare conference saw the launch of the Certified Linux Engineer (CLE) program which will acknowledge sysadmins 'who have obtained a high level of understanding of both the Linux platform and how Novell technologies run on, and integrate Linux in, mixed network environments'.

Certification will involve an instructor-led or self-study course covering installation, configuration and management of services such as *iFolder*, *ZenNetworks* and *eDirectory*, and a practical exam. There will also be web-based practical resource material available for exam preparation. The courses will be rolled out towards the end of 2003, with examinations starting in early 2004.

As a prerequisite, Novell suggests participants should have completed level one of the Linux Professional Institute Certification award or its Red Hat-run equivalent to obtain a 'baseline' understanding of the operating system. Novell users who have passed the Certified Novell Engineer exam (and upgraded their certification to NetWare 6 before 31 October 2003) will be entitled to sit the CLE exam completely free of charge.

Brian Lowry told us that any major technological initiative hinges on having the right expertise available. "That we've announced a Certified Linux Engineer certification speaks to

"They have taken some care to act as good citizens of the Open Source developer community"

BRUCE PERENS



our assessment that this certainly holds true in the Linux space." He said it was the company's aim to make it as easy as possible for individuals who deploy and maintain Novell services on NetWare to transfer that know-how over to Novell's Linux offerings quickly and easily. "Going forward, we expect people will build expertise on Novell services, rather than on specific platforms. That said, we're very focused on giving our customers the information and knowledge they need to move to Novell services on the Linux platform as soon as those services come available." Training on specific services would be available, he said, in tandem with the software. "We won't let a lack of training become an impediment to our customers' adopting these services." ■