

## VENDOR NEEDS AND STRATEGIES

### Novell Rising: Linux and Identity-Driven Computing Help Open Doors to Solving Corporate Identity Challenges

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#### IDC OPINION

Novell, a company which lived at or near the top of the pack in the networking, operating environments, and collaboration markets during its heyday in the late 1980s and early 1990s, has struggled competitively since then and lost ground to Microsoft, IBM, and other rivals. Novell has a renewed focus on returning to its role as a top competitor in a variety of markets, and through acquisitions, process change, and sometimes painful reorganization, the company is slowly but surely transforming itself into a more nimble competitor. Opportunities and challenges for Novell include:

- Technical ability.** Novell has significant depth in technology and R&D know-how. The company has a history of producing quality products backed by underpromising and overdelivering. Novell has transitioned most of its portfolio onto Linux, has positioned itself as an ambassador of Linux and open source, and will rely on support-based revenue streams in future years.
- Marketing.** From a marketing perspective, Novell faces the challenge of convincing customers that it is a relevant player and must consistently get itself onto the short list of products under consideration by existing and prospective customers. It must also reverse its practice of announcing plans to deliver a technology and then going silent until that product is delivered; although that approach worked in the 1980s, it is now a requirement to provide a stream of announcements to stay on decision makers' radar screens.
- Maintenance of revenue inflow.** Revenue growth is a critical challenge. The company continues to depend on revenue streams from its NetWare and GroupWise customers as it works vigorously to shift its revenue base to be less dependent on the NetWare portfolio. A key initiative here is its Identity-Driven Computing strategy, where Novell is combining its Nsure, exteNd, and ZENworks product lines into a unified solution set.
- Trust.** The Identity-Driven Computing strategy is a key initiative for Novell that could open opportunities outside the traditional Novell customer base, driving Novell into new markets and providing an opportunity to address new customers. Widely deployed identity management software from Novell could mean that the company becomes an essential piece of enterprise directory services, device management, mobility, context management, and other important paradigm shifts in enterprise computing. Will businesses trust Novell in this linchpin role?



## IN THIS STUDY

This IDC study takes a deep look at Novell's evolving market position and its prospects for success under new product and marketing strategies. During the previous 18 months, the company has undergone significant transitions as it digested the acquisition of Ximian and SuSE Linux AG and other related but less significant acquisitions. In this study, we consider the company's revised internal structure, its technology road map, and its go-to-market strategy.

## SITUATION OVERVIEW

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### Introduction

During its peak during the late 1980s and early 1990s, Novell was the king of what was then called network operating system software, with its NetWare product line. As competition intensified, with Microsoft at the low end and various vendors of Unix at the high end, the company found itself increasingly boxed into a niche market with a dwindling customer list, as competitors chipped away at Novell's installed base. This can be attributed to the fact that Novell's key capability, file and print services for distributed client systems, has become a common and integral feature of every server operating environment.

Since then, the company has attempted a variety of strategies to grow its core business. One recurring weakness has been the company's inability to support complex workloads aboard the NetWare platform. Although it is a superb platform for providing basic network services such as connectivity, print and file services, caching, storage, email, calendaring, and even security-related services such as firewall and perimeter security, NetWare has never been widely used for layered software. Although NetWare could support that type of workload, Novell has never provided an easy-to-use development and deployment environment that supported NetWare, nor could it generate a strong following in the independent software vendor (ISV) community.

As the industry shifted away from using x86 servers only for basic infrastructure purposes and began deploying more complex workloads such as workgroup database, Web serving infrastructure, and line-of-business application software (especially within small to medium-sized companies), Novell was unable to offer a solution that met customers' needs. As a result, even the most loyal Novell customers were forced to consider alternative platforms for some of their IT infrastructure. Curiously, despite a general distaste for Windows solutions within NetWare shops, Windows emerged as the next best x86-based solution for many such customers.

Since that time, the company has developed a strategy (detailed in this document) that incorporates a healthy dose of open source software — and open source mentality — to evolve its products into a more relevant form factor for existing customers and, importantly, to noncustomers that are unlikely to be familiar with the Novell of today.

## Company Overview

Today's Novell is a company that combines the original operations, based in Provo, Utah, with business units and product technologies that were acquired over the past several years. The stage for this evolution was set in July 2001, when Novell acquired Cambridge Technology Partners. As part of that acquisition, Jack Messman, formerly president and chief executive officer at Cambridge Technology Partners, moved to the position of president and CEO of Novell, replacing Eric Schmidt, who went on to join Google.

Other acquisitions that contribute to the company as we see it today include:

- ☒ **SilverStream Software.** Acquired in June 2002, SilverStream brought application deployment, integration, and Web services technologies that were intended to play a key role in Novell's Internet-centric computing vision. This acquisition cost Novell about \$112 million (\$212 million less \$100 million of cash on SilverStream's balance sheet).
- ☒ **Ximian.** In its first major foray into the open source business, in August 2003, Novell acquired Ximian. Known for its Ximian Desktop, a set of GNOME-based desktop technologies, Ximian brought several other products to the table, including its Connector technology, which allows a Ximian Desktop environment to tap a Microsoft Exchange server for mail and calendaring services; the Red Carpet system management technology; and the emerging Mono interoperability technology, which allows .NET applications to be supported on Linux. A notable aspect of this acquisition was that Ximian cofounders Miguel de Icaza and Nat Friedman — well-known and highly respected leaders in the open source community — joined Novell.
- ☒ **SuSE Linux.** Building on the Ximian acquisition, Novell acquired German Linux vendor SuSE Linux in January 2004. The \$210 million cash deal also helped Novell close a \$50 million investment that IBM had agreed to make in Novell. This acquisition set the stage for a major shift in Novell's product strategy.
- ☒ **Salmon.** Continuing to add to its consulting portfolio, Novell acquired Salmon Ltd., a United Kingdom-based IT services and consulting firm that specializes in delivering Web-based solutions.
- ☒ **Tally Systems.** Still not completed as this document was being written, this agreement for a proposed acquisition will add IT asset management solutions to Novell's ZENworks systems management product line.

Given the recent history of acquiring companies that offer technologies that dovetail into Novell's product portfolio and overall road map, IDC believes that Novell will continue to make targeted acquisitions to capture market share in regions where it is not well positioned or that are additive to its technology portfolio. This activity, IDC believes, may be centered on technologies for virtualization, provisioning, management, and security-related technologies, which tie into Novell's focus on

datacenter solutions based on Linux. In addition, given the company's growing desktop focus, the potential exists for acquisitions that help accelerate that element of its product strategy.

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## **Strategy**

Looking forward, Novell has settled on a two-pillar strategy, with one pillar focusing on the platform business (including NetWare, Linux, and the new Open Enterprise Server [OES] technology, as well as collaborative product offerings) and the other pillar (an identity business unit) focusing on managing and securing identity, managing resources, and providing portal and workflow services.

By grouping its products into these two large categories, the company should be able to focus development and product synergies to produce well-integrated products that allow customers to integrate identity into their application and management layered software.

### ***Platform Strategy***

The platform products are overseen by David Patrick, senior VP and GM for platform services. Patrick, CEO of Ximian prior to the acquisition by Novell, is driving the integration of NetWare and SUSE LINUX Enterprise Server (SLES) into the OES platform and, to a lesser extent, a focus on desktop Linux.

Novell's OES technology has been positioned as a solution that will be applicable to current NetWare customers and to certain Windows NT 4.0 migration prospects. Other potential customers not currently using NetWare will see Novell lead with a platform strategy based on SLES technology.

Beyond the operating system platform, Novell has plans to leverage its platform technology where it makes sense. A good first example is the company's plans to offer a future version of GroupWise, code-named Sequoia, which will be preintegrated with a SLES engine later this year. Thus, customers will effectively be purchasing a groupware product but will get a full version of Linux included with the product at no additional cost.

The platform strategy is not limited to a Linux/NetWare coexistence program. In fact, executives say that the plan is to move aggressively toward a Linux-centric plan for the future. Current NetWare customers will find the OES product offers them good interoperability between NetWare and SLES. And although NetWare support will continue forward, the writing is on the wall that customers will find themselves under increasing pressure to make plans to move from the NetWare kernel to the Linux kernel.

Novell's plans call for Linux solutions to be presented to customers at all levels of deployment, from basic infrastructure servers right through datacenter deployments at the high end. Although IDC notes that Linux penetration into datacenter environments will likely take years, the technology today offers value that can deliver good

incremental functionality to datacenter operations, much the same way that Windows has built a presence in datacenter environments over the past decade through a surround-and-conquer approach (although the conquer part still has yet to happen).

At the desktop, to date, Novell has carefully positioned its client technology as a solution well suited for repetitive task users (IDC has often described these workers as transactional or task-oriented users). They are typified by the call center or retail point-of-sale customers. However, with the next release of the Novell Linux Desktop technology, slated for late 2005, the company plans to expand the positioning closer to that of a general-purpose desktop.

Of course, competitors, and Microsoft in particular, have seen Novell's fielding of any desktop product to be a potential across-the-board threat from day one. Although this updated positioning strategy will not necessarily change the counter-positioning by Microsoft, it will give the Windows marketing machine additional incentive to redouble its efforts to try and block the growth of Linux as an alternative desktop technology.

### **Leading by Example**

Novell has been diligently feeding its dog food to its own employees. Although at the company's recent Brainshare user conference, executives cited conflicting data points about the current penetration of Linux at Novell, the most believable values articulated claimed that about 50% of the desktop systems at Novell are running Linux, with 30% of the total company running in a Linux-only mode and 20% configured in dual-boot mode. The stated goal is to have essentially all of the company running on Linux by end of the year. It remains to be seen how realistic that goal may turn out to be. Novell's Linux migration does appear to be surpassing internal adoption of Linux at other Linux vendors such as IBM, at least on a percentage-of-penetration basis.

Interestingly, the company claims it has successfully ditched Microsoft Office and has nearly all employees using OpenOffice, regardless of the underlying operating system in use.

### **Collaborative Solutions**

Novell's GroupWise and NetMail products also fall under Patrick's responsibility. Those products continue to be supported, with the company pledging a 5-year road map for NetMail and, currently, a 10-year road map for the GroupWise technology. The shorter projection for NetMail reflects the company's expectations that the Hula project (NetMail source code that was open sourced in February 2005) will quickly gain momentum and that long-term support for NetMail will become unnecessary. (For more information on the Hula project, see *Novell Does a Collaboration Dance: Hula Project Expands Open Source Software Options*, IDC #32944, February 2005.)

### ***Identity-Driven Computing***

Novell is committed to furthering the concept of the identity-based IT infrastructure to enable organizations to be more agile in their overall business and more easily able to comply with regulatory requirements.

Novell's newly named Identity-Driven Products Group is overseen by David Litwack, senior VP and GM. Litwack has been part of Novell since the acquisition of Silverstream in 2002.

The exteNd, Nsure, and ZENworks product lines fall under Litwack's umbrella. The Nsure portfolio also includes eDirectory as the directory services backbone to this solution set; Identity Manager 2 (formerly DirXML) as the metadirectory for integrated identity management, provisioning, and centralized password management functionality; iChain for identity-based Web access management; SecureLogin for client-based enterprise SSO; BorderManager and Security Manager for perimeter security services; FileSystemFactory for identity-driven storage provisioning; and Nsure Audit for logging, auditing, and monitoring functionality. The exteNd product provides an application platform based on J2EE for services-oriented application development with integration, workflow, business process management, and portal technology. ZENworks provides identity-driven, policy-based management and automation for the entire life cycle of desktops, laptops, servers, and handheld devices.

The core elements that make up this portfolio are now being marketed as a services foundation to support integration, security, and management. A key takeaway in this overall strategy is the importance of leveraging standards-based policy definition and automation centered around the concept of identity throughout the entire computing environment. Details are as follows:

- ☒ Novell's Application Services Foundation (ASF) is positioned to provide key application infrastructure elements to leverage in a standards-based, service-oriented environment, including portal, workflow, BPM, and integration connectors (aka adapters). Novell will focus its development on its "up-the-stack" technologies but has ceded its application server to open source application server vendor JBoss and is in a multiyear transition to retire its own application server. Novell has also stepped up this partnership and will be contributing code and engineering resources to the development of the JBoss Enterprise Middleware System (JEMS) project. In an additional nod to open source, the company is also embracing Eclipse as its development tools framework. As a result, it appears that the exteNd products will in turn be utilized in reincarnated form.
- ☒ Putting the identity behind identity-driven computing, Novell's Identity Services Foundation (ISF) at its heart is a policy engine to help define and enforce access, security, and identity contexts; auditing (monitoring and reporting) capabilities; and integrated directory technologies. Here, we also see a step back from focusing on a policy deployment server per se, pushing this lower-level infrastructure into the open source realm. Identity and access management form the cornerstone of this stack for an integrated security layer; federation and provisioning enable trust-based partnerships; virtualization and policy management provide automated adaptability; and audit increases transparency for corporate compliance.

- ☒ Novell's conglomerate Management Services Foundation targets the enforcement of management policy and provisioning within an administration framework. ZENworks 7 is based on Web services and is broken down into a modular code structure.

These foundations, the first two being more productized as modular stacks of technologies, could eventually be considered as system services. The functions that make up their branded products will be made available within software developer kits (SDKs) for developers and Novell partners. Novell is promoting these foundations as platforms, but they appear to be modular and can be considered more like a cadre of technologies that one can pull upon as needed.

More important, Novell expects these elements will be increasingly shared and leveraged across its own product lines. Also, by supporting Web services standards, as well as open source options for flexibility, it may allow Novell some room to expand its footprint without necessarily competing with a holistic application platform play.

### **Identity and Compliance**

Novell is committed to furthering the concept of the identity-based IT infrastructure to enable organizations to be more agile in their overall business and more easily able to comply with regulatory requirements. The vendor's Nsure Audit component, for example, allows organizations to reduce liability risks and comply with government regulations. Nsure Audit collects security, system, application, and event data to a centralized log, then filters the collected information to provide real-time monitoring, trigger notifications, and report generation. The ability to monitor, track, and evaluate how access rights are being used is critical to meeting government regulation mandates.

Part of what makes the company's identity management solutions compelling from a configuration change standpoint is the idea that it is necessary to know both the identity of the individual as well as the identity of resources and their state.

Finally, the company leverages its professional services organization, Novell Consulting, to not only service its customers directly but also enable its partners to be more successful through Novell-based identity and access management solutions. Deliverables range from strategy workshops and gap analysis to architecture design and implementation of the solution. In addition to working with Novell technologies, Novell Consulting will also utilize third-party vendor technologies in its engagements, depending on customer needs and computing environment specifications.

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## **Organizational Structure and Management**

Novell has undergone a series of significant executive changes in the past couple of years, which is not necessarily surprising given the amount of technology change and merger/acquisition activity. The changes noted by IDC include the following:

- ☒ Chris Stone, vice chairman, office of the CEO, departed in November 2004. Stone was seen as a technically astute thought leader in the company. The company said that no successor has been named but that chairman and CEO

Messman appointed David Patrick and David Litwack to oversee Stone's responsibilities.

- ☒ Bob Couture, senior VP, Worldwide Services, departed in October 2004. Couture came to Novell in early 2002 from Berkeley Enterprise Partners, formerly COO, and was charged with driving global services delivery and solution execution. Currently, the company has no plans to replace his position. Services responsibility has subsequently been pushed out to the regions.
- ☒ William Hewitt was hired as senior VP and chief marketing officer in February 2005. Hewitt will oversee marketing and communications, including go-to-market strategy. Reporting to Messman, Hewitt was formerly group vice president, global theater marketing at PeopleSoft. Hewitt replaces Debra Bergevine, who was hired as CMO in March 2002.
- ☒ Alan Nugent, chief technology officer, departed the company in March 2005. Hired in June 2002, Nugent was driving much of the company's high-level vision and served in customer- and public-facing roles to articulate the technical direction the company was taking. Nugent departed Novell for a position at Computer Associates International Inc.

In a discussion with IDC analysts at the recent Novell Brainshare user conference, current Novell management maintains that these departures and changes are a collection of largely unrelated piece parts.

Joe Tibbets, Novell CFO, told IDC, "[Stone] was a key player. Having said that, when he left, we didn't feel an immediate hole in our organization. While Chris was here, we reorganized to use Litwack and Patrick to run the identity and platform businesses. They're both experienced, have been CEOs, [and have] been technologists. [We] felt we didn't need to replace him."

Regarding the departure of Nugent, Tibbets adds, "[That] was a separate event. He will be missed; we will replace Alan. Does that create a crisis? No. Our direction is pretty well set, so from an execution standpoint, we're pretty well set."

The key players in Novell's executive management today include:

- ☒ **Chairman/CEO.** Messman, who was formerly president and chief executive officer at Cambridge Technology Partners
- ☒ **Chairman, Novell EMEA.** Gerard Van Kemmel, who has been at the helm of Novell's EMEA operations for two years
- ☒ **President, Novell EMEA.** Richard Seibt, who was formerly the chief executive officer of SuSE Linux
- ☒ **President, North America.** Ronald W. Hovsepian, who was placed in this role in 2003 (Hovsepian, a 17-year IBM veteran, is responsible for leading Novell's operations in its North America business unit and reports to Messman. He replaced H. Carvel Moore, who left the company.) Hovsepian was also given additional responsibilities for Novell Technical Services and Consulting.

- ☒ **President, Novell Asia Pacific.** Rhonda O'Donnell
- ☒ **President, Latin America.** Jose Alamandoz
- ☒ **Senior Vice President and Chief Marketing Officer.** Hewitt (mentioned above)
- ☒ **Senior Vice President and GM, Identity-Driven Products Group.** Litwack, who joined Novell through the acquisition of SilverStream, where he was president and CEO (Litwack is responsible for the identity technologies and related products, including portal, systems management, and provisioning technologies.)
- ☒ **Senior Vice President and GM, Platform Services.** Patrick, who joined Novell through the acquisition of Ximian, where he was CEO (Patrick is responsible for driving the Linux and NetWare platforms forward to a converged platform that ultimately will become a Linux-only solution.)
- ☒ **Senior Vice President and CFO.** Tibbets, who joined Novell in 2003 (Tibbets is responsible for the company's finances, corporate facilities, operations, investor relations, and information systems worldwide.)

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## **Product/Service Offerings**

### ***Platforms***

Novell's operating system strategy has been in place for about a year now. The delivery of OES has followed the promised trajectory, and the integration between the SLES and NetWare products in OES appears to be well planned and executed.

However, an expected trend is developing — earlier than IDC had anticipated — where the pressure on existing NetWare installations to make a migration decision is ramping up. Not surprisingly, Microsoft has helped make this a pressing issue for Novell customers and is trying to accelerate the decision-making process on the part of these customers. Of course, the Microsoft marketing machine has a focused program to help these customers decide to move to Windows rather than to Linux.

As result, Novell is beginning to feel this same pressure, both from a customer retention perspective and from an anti-Microsoft perspective. IDC expects to see Novell ramp up marketing to customers, encouraging them to commit to OES or to SLES rather than to leave customers behind on older versions of NetWare — and vulnerable to competitive migration programs.

Given the loyalty that many existing customers have to NetWare — and to Novell — we believe a significant portion of Novell's installed base will be difficult conversions for Microsoft. However, Linux in its most common form represents a significant technology (and administrative) shift for NetWare shops, which could play into Microsoft's favor. Conversely, Novell is counting on the integration of Linux into the OES solution to lower Linux technology impediments and make that solution more attractive than a Windows alternative.

### ***Virtual Environment Software***

At this time, Novell's products and those of its partners address the lion's share of the requirements for creating a dynamic IT environment using virtual environment software (VES) (see *Novell Offers PolyServe Clustering Software as Part of New Datacenter Initiative*, IDC #33092, March 2005). They do not offer virtual access software directly, however. The following points compare Novell's offerings with IDC's VES model:

- ☒ Novell supports Apache, which addresses a portion of the virtual access software component of the model. The Linux Terminal Server open source project, which is available on Novell's SUSE LINUX, addresses another portion of the virtual access software component of the VES model. Novell does not offer virtual access software that support Windows- or Unix-based applications, however.
- ☒ Novell supports JBoss and a number of other open source virtual application environment software projects such as Mono and Eclipse. It also supports MySQL and other open source database software. This, combined with its own exteNd product family, allows Novell to address the virtual application environment component of IDC's VES model.
- ☒ Virtual processing software, another component of IDC's VES model, is one of Novell's historical strengths. The agreement with PolyServe allowing Novell to sell and support Matrix Server addresses the data availability requirements of this component. IDC's model, Novell's current support of UML, the announcement of future support of Xen, and the launch of Novell Cluster Services and Business Continuance Clustering to Linux allow Novell to cover the waterfront of virtual processing software.
- ☒ Novell's agreement with PolyServe also allows Novell to address portions of the virtual storage software component of IDC's model. Storage replication can be accomplished with a number of open source projects.

IDC expects that Novell will continue to expand its offerings and its partnerships in this growing area of software.

### ***ZENworks Product Family***

The entire ZENworks family of products — ZENworks Server Management, ZENworks Handheld Management, ZENworks Desktop Management, and the recently announced ZENworks Linux Management — is free of the ties to NetWare. In fact, these solutions for patch management, IT asset management, settings and configuration management, and software distribution capabilities will work in a Microsoft Windows and Microsoft Active Directory environment as necessary.

The ZENworks family is a positive growth area for Novell, as the company has reported a 7% increase in new licenses year over year. From a technology standpoint, Novell has much to be proud of in ZENworks, as it is functionally able to discover and inventory a machine and also determine that the machine belongs to a specific individual.

Much is owed to the directory use within ZENworks for this capability, and as a result of its sophistication and power, it is not installed lightly. But ZENworks is a powerful tool for organizations needing patch management and other change and configuration management capabilities. From a Linux and identity management strategy, ZENworks offers solutions that incorporate multiple platforms, which help customers as they move to different mixes of platforms.

Regarding the Linux strategy, ZENworks is in an interesting spot. Within the change and configuration management software market where these solutions play, ZENworks brings in enough revenue to be considered one of the top competitors in this market. The market overall is dominated by the need to manage Windows client and server operating environments. Although Linux is making strong inroads as a server operating environment, its widespread acceptance by enterprises and broad use of a Linux desktop are a long way off. Managing Linux from a server environment is possible, and Novell has recently announced ZENworks Linux Management for this purpose.

The identity management idea is still solidly based in Novell's eDirectory capabilities to manage a desktop from a policy-based standpoint, with awareness of the machine and the person that owns the machine at the same time. ZENworks offers a strong complementary story in identity management thanks to its directory to identify users by name.

### ***Identity and Access Management***

Novell's identity and access management portfolio includes the company's Nsure suite of identity information products. The Nsure portfolio includes eDirectory as the directory services backbone; Identity Manager 2 (formerly DirXML) as the metadirectory for integrated identity management, provisioning, and centralized password management functionality; iChain for identity-based Web access management; SecureLogin for client-based enterprise SSO; BorderManager and Security Manager for perimeter security services; FileSystemFactory for identity-driven storage provisioning; and Nsure Audit for logging, auditing, and monitoring functionality.

Novell Identity Services Foundation (ISF) is a modular platform that enables consuming systems and applications to become identity-aware by providing a common crafted identity, a consistent policy and authorization mechanism with granular authentication, and audit model. ISF simplifies the management of identities and the policies that govern their interaction, eases the audit process for monitoring, and provides the increased transparency required for compliance.

### ***Integration and Service Oriented Architectures***

In 2002, Novell acquired Silverstream, a company that had at that time positioned itself to be the most open and standards-based option for application deployment. Novell subsequently attempted to promote this technology toward a developer community that it had not necessarily captured previously. Getting mindshare and traction as an integration and deployment player has been a challenge for Novell (as for many vendors) in what is a maturing and highly contested market.

Therefore, it should be of no surprise that Novell is now focusing on how to best *leverage* these technologies in the context of its historical strength (particularly on directory and identity) versus outright competition with a set of general solutions. This can now serve as a primary use case to drive these specific technologies. And by retiring its core application server within the exteNd suite via a multiyear transition to JBoss, the company can better focus R&D efforts as well as reinforce its role as a key ambassador of open source.

Service oriented architecture (SOA) implementation is top of mind within the overall strategies of most vendors and users today, and Novell is no exception. The marketplace is just getting its arms around the requirements to govern SOAs — the basic needs may be the same, but the implementation must be much more federated and scalable.

Moving to SOA is a multiyear transition, and education is extremely important at the current stage of acceptance and adoption. Registries and policy automation for process, security, and overall management are critical enablers of SOAs, and Novell will increasingly see new competition across all these domains and must continually stay ahead of pace in regard to innovation and value-add dimensions.

### ***Demonstrating Stack Integration***

Finally, it must be noted that it is not enough to have a collection of piece parts. It will be critical to Novell's success to demonstrate some connection between the platform and Novell's identity management products. Novell's challenge is that, in large organizations, the person deciding on an identity management strategy is typically not the same person responsible for datacenter platform strategy. Nor is there any obvious reason why one would associate identity management software with the platform. Although obvious upsell potential exists, Novell needs to refine its messaging to show the link between identity management software and the platform.

Novell also needs to take a lead in pointing out the level of integration possible using open source and a mixed open source/proprietary environment. One of the arguments that resonates well with customers is that open source software cannot be as well integrated as a closed source stack. Novell needs to demonstrate both technically and in its marketing that this is not the case.

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## **Target Markets**

### ***Datacenter***

Linux has made steady gains in the marketplace and is poised to gain more ground — often in forms other than pure new deployments. To many observers, this progression has been less visible because Linux has followed a nontraditional path in its evolution, growing from a small grassroots following in the early 1990s, to a broader community-supported product during the late 1990s, to a fully supported operating system distribution today — one that is delivered by system OEMs and covered by maintenance agreements from Linux distributors, systems vendors, or third-party providers.

Novell has a three-pronged strategy for Linux that includes an open source project, SUSE Professional; a packaged operating environment product, SUSE LINUX; and an enterprise-class product that is packaged with maintenance and support services, SUSE LINUX Enterprise Server. This strategy appears to offer something for leading-edge Linux users, early Linux adopters, and mainstream organizational users.

This approach differs from that offered by Red Hat. Red Hat is offering a two-pronged strategy, an open source project called Fedora (which includes no commercial support from Red Hat) and an enterprise-class offering called Red Hat Enterprise Linux.

Novell has created a specific initiative and has begun to line up partner companies to help it position its Linux solution for datacenter environments. Actually, Novell's relationship with IBM, which owns the customer relationship with many datacenters, and the availability of SLES products for all of IBM's large platforms, means Novell has the distinct potential to gain some traction in these accounts if it does not overpromise on what its products can deliver. Given Novell's traditionally conservative approach, it is unlikely to make this mistake. However, the key question becomes how long it will take to turn this potential opportunity into a revenue-producing market segment for the company.

### ***Desktop***

Although many open source and Linux proponents have anxiously awaited the big bang of Linux client operating environment adoption, IDC has long maintained that Linux as a client operating environment would see a gradual adoption curve. We believe significant difficulty is associated with displacing an entrenched product such as Windows, for which customers have a significant investment in application software.

However, we also see opportunity for Linux to compete with Windows client products if vendors carefully select market niches where the capabilities of Linux desktop software will fully meet the use requirements. Today, transactional desktops represent the best fit for Linux, although in some instances, consumer desktops could find Linux to be an appropriate solution if users are kept from tinkering with the operating system itself and causing problems. In addition, professional software developers and content developers, who in many cases have previously used Unix workstations, represent another viable segment.

IDC notes that Novell taking a careful, conservative approach to Linux-based desktop platforms. It is targeting end-user segments that are likely to find success using Linux today — specifically the developer and transactional workers. In each case, the features and functions of the desktop environment, the personal productivity software (OpenOffice.Org), the Web access environment (Mozilla and Java), and software necessary to access organizational Exchange-based electronic mail systems (Evolution) fit the user segment profile well. Furthermore, ZENworks allows organizations to easily provision and manage the Desktop and Server Linux installations within an organization.

We believe that Novell, and its primary Linux competitor, Red Hat, will ultimately target knowledge workers and consumers when open source tools and applications become available to fit those user segments. Novell's work to migrate its own employees will certainly provide it with a great deal of experience — experience that really can be gotten no other way.

### ***Collaborative Computing***

With GroupWise, Novell has maintained a steady third ranking in terms of product revenue and users in the maturing integrated collaborative environments (ICE) (aka groupware) market, behind IBM and Microsoft. Novell's loyal 35 million user base and competitive product drives maintenance revenue and attracts new customers each year. Novell has expanded into the enterprise instant messaging (EIM) market, with its Novell Messenger product, and into the standalone email applications market, with its NetMail product, which is designed for workers who require email and calendaring but not full-blown ICE.

One challenge for Novell is that the collaborative applications market is bigger than these three markets. Customers looking for a complete collaborative solution including ICE, EIM, standalone email, Web conferencing, team collaborative applications, and unified messaging/communications need to look beyond Novell's portfolio. This puts Novell at a competitive disadvantage with organizations looking for a one-stop shop for collaboration.

Having created the Hula project to promote open source development of a messaging and collaboration server based in part on providing future updates to NetMail, Novell will look to partners to fill the gaps in its collaboration portfolio. If Novell is able to attract the right partners, it will be well positioned to offer an open source alternative.

Novell's bet on Linux means that over the next several years, it must transition existing customers off NetWare and prospective customers off Windows servers to Linux running GroupWise and NetMail. Effective and aggressive marketing and sales programs will be needed to convince prospective users of the value of the openness in the products and customer/supplier relationship that Novell offers in contrast to its competition. Otherwise, organizations will lack sufficient reasons to look beyond Novell's larger competitors and choose Novell for collaboration.

Given the importance of connecting to the right people securely during collaboration, Novell's identity-driven computing strategy is one that is likely to resonate with buyers of Novell's collaborative offerings. Novell's directory has been a core element of every GroupWise deployment and has attracted customers who preferred Novell's eDirectory over competing enterprise directories. Novell must elevate identity beyond user directories by demonstrating the unique benefits of its identity management solutions for connecting people, applications, content, and other resources.

### ***Small and Medium-Sized Business***

In recent years Novell has continued to develop effective products for the small and medium-sized business (SMB) market, building on traditional NetWare solutions. Despite the company's efforts, NetWare penetration among small business network

users has remained stalled at 5–10%, with Microsoft desktop and server solutions far more widely used. As part of Novell's efforts to reinvigorate the company around Linux, Novell has introduced an effective Linux-based small business solution that offers comprehensive capabilities at very attractive prices.

Novell's new Linux Small Business Suite provides both channel partners and SMBs with an alternative to Microsoft Small Business Server, leveraging the appeal of Linux while pricing more attractively for firms that have moved beyond the five or ten seat level while still using three or fewer servers. (About 83% of small businesses with server-based networks fit this profile.)

Server software is provided along with support for Windows or Linux desktop clients (important since more small businesses are interested in using Linux for their networks than for their desktops). A number of advanced capabilities are included in Novel Linux Small Business Suite 9:

- SUSE LINUX Enterprise Server 9 — for basic network support including file access and sharing, printing, firewall, and remote access via VPN
- Novell GroupWise — for collaboration with email, calendaring, instant messaging, and spam handling on Windows or Linux desktops
- Novell Linux Desktop — for office software such as word processing and presentation and a Web browser
- Novell eDirectory — for directory enabled management
- Novell iManage — for management tools

Installation wizards designed to facilitate channel support partnering with major OEMs like Dell and HP will also provide a high visibility launch for the new software. IDC believes that pricing for the new software will make it especially attractive as a competitive alternative to the \$1,500 Microsoft SBS 2003 Premium Edition, which supports five users. The five-user price for Novell Linux SB Suite is \$475 (\$252 for upgrading customers). Although there is a 100-user and three-server limit to expansion, the vast majority of small businesses are well within these limits.

Small businesses interested in Linux cite the open source nature of the software as the most attractive aspect of the software, but a significant share (40%) also note that they like the idea of a non-Microsoft operating system alternative. By addressing both of these interests through work with channel and OEM partners, Novell is paving the way for what could be a major change in the way small businesses implement local network solutions.

### ***Novell Services***

Compared with last year, a dramatic departure has occurred in the go-to-market strategy for Novell Services. Novell's professional services used to be managed and delivered from a centralized organization with a focus on consulting and technical services wrapped around Web services, identity management, and SOA. The focus areas and the importance of services as a growth opportunity have not changed,

however, the way in which Novell will achieve its objectives for services remains unclear. The absence of Couture, former SVP Worldwide Services, and the lack of articulation on Novell's services strategy moving forward were noticeable. As mentioned earlier, Novell executives said services would be decentralized and pushed out to the regions.

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## **Analysis of Challenges and Opportunities**

### ***NetWare Migration***

Novell's biggest competitor could well prove to be the apathy of its installed base when deciding on a move either to recent versions of NetWare or to Linux. As noted earlier in this study, the relative lack of ISV support for NetWare inhibited the growth of the platform, thereby allowing Microsoft to take advantage with a much wider ISV portfolio. In addition to standard upgrade marketing (discounts, upgrade paths, etc.), Novell needs to stress the breadth of the ISV portfolio for SLES and tie its ISV program to its channel and development programs.

However, by combining the need for the addition and integration of identity services into a platform migration, Novell has a chance to build a larger ROI story for customers that are considering its post-NetWare infrastructure. However, of significant concern is the other platforms in use. No NetWare shop is a pure NetWare shop, and it is unlikely that the majority of the additional platforms are Linux.

### ***Microsoft***

Novell's chief nemesis of the past was Microsoft, and its chief nemesis of the future will likely be Microsoft. Well-funded, aggressive, and willing to buy market share when it has to, Microsoft will be a thorn in Novell's side for the foreseeable future. Able to meet every product solution that Novell can field with one or more solutions aboard the Windows platform, the one key differentiator for Novell is providing a solution that is free of lock-in to Microsoft.

Although that message will resonate well for the most die-hard NetWare shops, other shops having a mix of NetWare and Windows may be looking to standardize on a single platform. In that scenario, customers may see benefit in standardizing on a Windows infrastructure, even though it means increased lock-in to Microsoft solutions.

On the other hand, Novell sees the aging Windows NT 4.0 installed base as a possible target for migration to Linux. Although some NT 4 shops are in fact holding out because they do not want to commit to another round of Windows lock-in, it is likely that others are merely technology laggards and, as such, may not be likely to even consider a Linux solution because of their perceptions about risks and the learning curve it includes.

### ***Red Hat***

Novell's chief competitor in the North American and Western European Linux markets will continue to be Red Hat. However, the two companies have different strategies for selling their products and different value propositions.

Red Hat has a vertical-focused approach that is targeted on a direct sales model and tends to focus its energy on Unix shops — often Sun shops — as likely candidates to consider a Red Hat Enterprise Linux (RHEL) solution. Red Hat has a philosophy where it wants to see a stack of purely open source software running atop of RHEL. One major shortcoming of the company's portfolio was a directory element, which the company is in the process of addressing through its acquisition of the former iPlanet Directory Server product from AOL (acquired from Netscape).

By comparison, Novell has a deep ISV and reseller community and has numerous layered software products — most of which are not open source — that add value above the commodity Linux layer. What Novell lacks in brand recognition compared with Red Hat is partially made up for in Novell's reputation as a reliable and experienced partner that understands how enterprises operate.

Given SUSE LINUX's position as the first Linux distribution to emerge on IBM's z-, p-, and iSeries platforms gives Novell something of a head start over Red Hat, at least in IBM accounts, but Novell will have to win on its own attributes with HP, Dell, and other major hardware OEM channels.

### ***Change and Configuration Management***

From a configuration and change standpoint, many of Novell's competitors have the strength of having a broad product line that can address multiple pain points for a customer. This provides a disadvantage in that no single product within that line tends to be singled out for increased growth. Novell's policy-based identity management story works well against a customer that may not perceive competitors as using their software to "just sell more hardware." This type of customer is going to be in the 1,000–10,000 desktop range, where other competitors play as well.

### ***Product Marketing Programs***

As stated, Novell's challenges have not always been technology related. Generally speaking, IDC sees Novell as a company with technically competent and in some cases, technically superior, products that were inadequately backed due to relatively weak, nonaggressive marketing. Novell's shift into a comprehensive line of open source products gives it the unique marketing opportunity of having a range of products rooted on a set of common attributes. Novell must spend the money and otherwise develop the messaging around its new direction or risk falling into the old trap of having the best technology nobody ever heard of.

The company has repeatedly promised to fix its marketing dilemma. Indeed, this is a recurring theme articulated by customers who find they have to promote Novell solutions internally within their own organization because of the lack of visibility that Novell has within IT and executive management. The company seems bent on reinventing its marketing programs almost yearly, and in 2005, Novell installed Hewitt (a former PeopleSoft VP) as its new chief marketing officer.

### ***Identity and Access Management***

Identity and access management requirements will further proliferate as organizations attempt to regain control of users' access to corporate resources. Novell's emphasis

on identity is a sound one given its experience executing large-scale projects for customers in various industries, including government and pharmaceuticals. However, many existing and potential customers are unaware of Novell's service delivery capabilities. It will be critical for the organization to emphasize its success and experience in delivering identity-based solutions to its customers. As Novell reaches out to nontraditional verticals, it will become more dependent on partners to enhance revenue opportunities and provide industry expertise to fulfill its growth objectives.

Novell's strengths include the company name recognition and association with quality products, as well as its sizable installed base. The company has also worked to establish strong partnerships in the identity-driven computing space (e.g., its partnership with Protocom for password management and SSO). Novell's identity and access management strategy has the benefit of experienced strategic infrastructure solutions delivery on the executive management level combined with experienced and innovative technical expertise for product development and direction.

## **FUTURE OUTLOOK**

Novell faces a market that has opportunities hidden under every rock. However, the fact that more opportunities are open to Novell does not mean that Novell can and will convert those opportunities into competitive wins. Novell needs to do the following to succeed:

- ☒ Novell has significant depth in technology and R&D know-how. The company has a history of producing quality products backed by underpromising and overdelivering. Novell has successfully transitioned nearly its entire portfolio onto Linux. The drive to combine these two strengths into a composite offering is well underway at the company. However, the company needs to continue to integrate its products with emerging open source technologies and with proprietary products that dominate the market, especially in enterprise accounts.
- ☒ To succeed, Novell must compete against its old nemesis, Microsoft, which has taken a renewed focus on competing with Novell. Only two years ago, Novell was a company on which Microsoft had focused little competitive energy, but that has changed, and today, Novell represents one of the top 3 or 4 competitors that Microsoft is watching. But this is about more than competitive marketing, as Microsoft has a presence in the vast majority of accounts today, and it will be difficult for Novell to find a new customer opportunity that will not include a competitive threat from Microsoft. To succeed in this space, Novell needs to leverage its historic strength of being the glue between disparate platforms, allowing coexistence between Windows, Unix, Linux, and whatever else is in a customer's mix.
- ☒ Emerging Linux customers present the best opportunity for Novell. Given its strong story for an identity and management portfolio layered above the basic operating system — as well as the services and support infrastructure to back these products — the company has a story that cannot be matched today by Red Hat, although other companies such as IBM (which happens to be both a partner

and a competitor) can and will bump heads with Novell. IDC believes it is critical for Novell to find a strategy to work with IBM, HP, Dell, and other major OEMs to ensure that Novell's products can be integrated with the OEM partner's products in a cooperative and collaborative manner, with the collective benefit going to customers. Competing with OEM partners is not a formula for long-term success.

- ☒ The challenge Novell faces in the identity access area is to rise above the noise in the marketplace and quickly and succinctly demonstrate highly functional, integrated products and services to address customer needs. As noted, the company already has a foothold in several vertical markets and has the opportunity to leverage the current IT market need for identity-driven solutions to meet regulatory and compliance demands in the coming months.
- ☒ The Identity-Driven Computing strategy is a key initiative for the company and one that could open opportunities outside the NetWare customer base, driving the company into new markets and addressing new customers. Widely deployed Identity management software from Novell could mean the company becomes an essential piece of enterprise directory services, device management, mobility, context management, and other important paradigm shifts in enterprise computing. Novell needs to make sure that businesses trust Novell in this linchpin role. If it is successful in establishing this trust, it will open new opportunities for the company beyond the world it knows today.

## **ESSENTIAL GUIDANCE**

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### **Actions to Consider**

- ☒ Novell should align its sales force so that its sales staff and engineers are available to physically support key hardware partners that are meeting with a prospect. This may include sending the Novell sales person to the meeting on Novell's own nickel. By doing this, Novell can be a key player at the enterprise table and will extend its credibility with these new customers that may still have an outdated perception of what Novell is.
- ☒ Novell should invest further in a solutions marketing program to illustrate how Novell products can be leveraged in conjunction with Novell Consulting to solve complex problems for customers. Given the perception by IDC that consulting has fallen in overall importance in Novell's game plan, it is important to rebuild this dimension of the company's image as a comprehensive services capability.
- ☒ Novell should deliver a precise road map for customers that highlights its specific strengths and existing products and services for identity and access management solutions, combined with an outline of its vision for the future of identity-driven computing in both the enterprise and SMB organizations. This will be essential as this marketplace experiences the confusion resulting from continued growth and consolidation of smaller companies and technologies in the coming months.

- ☒ Novell's commitment to open standards-based products and Web services will position it for growth in the identity and access management (IAM) market sector, especially against less established players. The company's Identity-Driven Computing strategy is designed to appeal to both enterprise-level audiences as well as the SMB market.
- ☒ Finally, moving at Internet speed remains a significant challenge for Novell. The company has made a practice of announcing plans to deliver a technology, and then it goes silent until that product is delivered, adopted by early customers, and proven. Only then will Novell formally announce the product. Although that approach worked in the 1980s, it is now a requirement to provide a stream of announcement to stay on decision makers' radar screens.

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