

What Microsoft doesn't want

you to know

Networking Services

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WHITE PAPER



how an
all-Microsoft
environment
can expose
your organization
to serious
risks

Novell.

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Many organizations are faced with upgrading their current, outdated networks with newer technology. Some of these organizations are considering ripping and replacing their current network operating environments with an all Microsoft environment. If you are considering such a move, read this paper before going ahead. Investing a few minutes now could save you considerable time and money in the future.

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EXECUTIVE SUMMARY

Your organization may be considering upgrading your network, and you may think that ripping out your current multi-vendor network and replacing it with a new, all-Microsoft environment is the right decision. If you're considering such a course of action, you need to understand that this approach has many serious risks. What's more, there is no compelling business or technical reason to do so. In fact, after completing the significant and expensive effort to move to an all-Microsoft environment, you may find that you have actually lost functionality.

Listed below are just some of the risks you to which you expose your organization by the switch to an all-Microsoft environment.

Gaping Security Holes

- MS OS's had 193 known vulnerabilities in 2000-2001 whereas Novell NetWare had only four known vulnerabilities.¹
- In a recent *FirstTake*, Gartner notes, "The press has identified the 'donut' virus, written by a 19-year-old Czech hacker, as the first .NET virus."²
- In a CIO Alert, Gartner recommends that enterprises hit by both the Code Red and Nimda worms immediately begin to investigate moving Internet-exposed Web servers from Microsoft IIS to less-vulnerable Web server software, such as Apache.³
- The costs of viruses and worms are enormous.
- *Computer Economics* estimates that the damage worldwide caused by malicious code attacks in 2001 comes in at a whopping \$13.2 billion.⁴
- Code Red alone may top out at an incredible \$8.7 billion when its bitter reign of destruction finally ends.⁵
- Estimates of costs due to the Love Bug virus run as high as \$15 billion.⁶
- In an attempt to plug the holes, Microsoft released 60 security-related patches in 2001.⁷

¹ <http://online.securityfocus.com/vulns/stats.shtml>

² .NET or not, Microsoft Security Vulnerabilities Continue, Gartner *FirstTake*, January 11, 2002

³ http://www4.gartner.com/1_researchanalysis/mrr/1101mrr.pdf

⁴ <http://www.theregister.co.uk/content/56/23707.html>

⁵ <http://www.theregister.co.uk/content/archive/20779.html>

⁶ <http://www.usatoday.com/life/cyber/tech/2001-08-01-code-red-costs.htm>

⁷ <http://online.securityfocus.com/infocus/1548>

Exorbitant Costs

- According to a Gartner study, it costs nearly twice as much to migrate from NetWare to Windows than to upgrade to newer versions of NetWare.⁸
- In a recent TCO study conducted for Novell at WFS Financial, Gartner observed that when you include software, hardware and administration, NetWare is 52 percent less expensive than Windows NT/2000.
- Microsoft has changed its licensing practices, requiring large companies to pay up every three years to continue using a piece of software.⁹
- Many organizations that have gone to an all Microsoft environment have found that the transition costs three times as much and takes 75 percent longer to implement than they had originally estimated.
- IT executives have discovered that Window's 2000 deployment schedules have doubled and costs have dramatically increased over original estimates.¹⁰
- Some insurance companies charge a higher premium to their customers who run Microsoft IIS due to more down time from hacking.¹¹
- The new Microsoft Licensing 6.0 could increase your software costs from 20 to 100 percent.¹² Gartner estimates that enterprises with four-year upgrade cycles for Microsoft Office will typically pay 68 percent to 107 percent more to upgrade, while for three-year cycles the numbers are 35-77 per cent.¹³

Lock-in to Single Vendor

- Progressive Strategies notes that the potential disadvantages of lock-in to an all-Windows environment is the single most compelling drawback to moving forward with a network based on Windows 2000 Server.¹⁴
- According to a recent article in CIO Magazine, Microsoft Licensing 6.0 is a "not-so-simple plan to turn Microsoft into a utility that provides the electricity to power businesses, now and forever."¹⁵
- "Under the new program, customers don't simply buy software and worry about upgrades in the future. Instead, they are placed in a program that commits them to upgrading every two years." CNET News.com.
- "Microsoft is acting in a way that says 'We make the rules.' But this time, corporations are saying, 'No. You're a supplier. Act like one.'" David Roberts, CEO, The Infrastructure Forum.

⁸Is Novell NetWare Still a Viable Server OS for SMBs?, Neil MacDonald, Gartner, Inc., April 10, 2001

⁹<http://news.com.com/2100-1001-257176.html?legacy=cnet>

¹⁰http://www.nwfusion.com/archive/2001/116920_02-12-2001.html

¹¹<http://news.com.com/2100-1001-258392.html?legacy=cnet>

¹²<http://www.informationweek.com/reports/TWK20011211S0001>

¹³Microsoft Hits Enterprises With Huge Price Jumps on Software Licenses, Gartner *FirstTake*, May 10, 2001

¹⁴Novell, Inc. NetWare 6: Network Operating Systems Beyond the LAN, Progressive Strategies report, October 30, 2001

¹⁵"The meter is running ... but CIOs are Saying, 'STOP THE CAB!,'" *CIO Magazine*, January 15, 2002

migrating to an all-Microsoft eNvironment is fraught with risks

Security Risks

Security is an overriding concern in business today. Major security issues include unauthorized access to highly sensitive information and disruption of network services due to hackers, terrorists, emergencies and disasters.

Windows NT and Windows 2000 have been widely criticized for gaping security holes that open the door to vandals, hackers and terrorists. These environments are highly susceptible to viruses and worms such as Nimda and Code Red.

In an attempt to plug the security holes, Microsoft continually releases patches and updates. That means organizations need to install numerous patches and service packs on virtually every server and PC running Internet Explorer (IE), IIS Web servers and on all desktops running Outlook Express email clients. According to Gartner, patches come out almost weekly. Implementing every patch necessary to maintain protection drives up ownership costs dramatically.

Organizations are reacting to the difficulties and expense of protecting Microsoft IIS servers by replacing them with other servers.

Cost Risks

Today, organizations are under intense pressure to implement systems that increase efficiency and cut costs. The economy continues to slump and

revenues are dropping, causing budgets to shrink and IT spending to drop. Executives are scrutinizing all IT expenditures for return on investment (ROI). Yet according to most analysts, switching from NetWare to Windows 2000 will cost considerably more than staying with NetWare. Organizations will incur costs related to migration, retraining and data conversion. Moreover, ongoing costs will be higher.

Substantial Migration Costs

A major problem in upgrading to Windows 2000 is that you have to rip and replace all your desktops, and that's an expensive proposition.

Ripping and replacing not only costs a lot, it also takes a substantial amount of time. With more hardware to roll out, most organizations experience delays in deployment. Data conversion and retraining also introduce long delays. Delays hamper productivity within the organization and that ultimately affects your bottom line.

Switching to Windows also requires retraining of all administrators and users—a costly and time-consuming effort. In large organizations retraining could involve thousands of people, all of whom would suffer from a loss in productivity during the learning curve. By simply upgrading to new versions of Novell software, you'll minimize retraining. Most administrators are already familiar with eDirectory™, NetWare, GroupWise® and ZENworks®

An article in ZDNet News states, "With the emergence of the Nimda worm—the latest in a long series to attack Microsoft's Internet Information Server (IIS) and other software—Gartner believes it's time for businesses with Web applications to start investigating less vulnerable Web server products."¹⁶

Gartner Group estimates a \$2,050 average cost per desktop for organizations to migrate from Windows NT4 workstations to Windows 2000 Professional, and as much as \$3,100 per desktop to migrate from Windows 95 or 98 workstations¹⁷.

¹⁶ "Nimda: Another worm, more patches," Gartner Viewpoint by John Pescatore, *ZDNet News*, September 21, 2001

¹⁷ op. cit.

Gartner found that the total cost of migrating from NetWare 4 to Windows 2000 (including hardware, software, labor and training) is nearly twice as much as migrating from NetWare 4 to NetWare 6.¹⁸

According to Gartner, "Through 2003, Windows 2000 Server labor costs will be 5 percent to 15 percent higher than those for other NOS platforms because of the Windows 2000 skills shortage."

According to Gartner, "Heterogeneity will continue to be a Novell strength and Microsoft weakness."

Gartner analysts found that enterprises may actually lose functionality if they implement a less-developed directory service such as Microsoft's Active Directory.

and would require only a short ramp-up time to become accustomed to the new versions. Users who have been working with NetWare, GroupWise and other Novell applications will quickly adapt to the new functionality in the current software releases.

Migration to Windows would also require the conversion of multiple databases. For example, GroupWise customers would have to convert all GroupWise server and client directories to Exchange format. This time-consuming task can disrupt email services and hamper user productivity.

Higher Ongoing Costs

Microsoft's licensing schemes are complex, driving up costs and making management and compliance extremely difficult. An organization must purchase licenses for clients as well as a separate license for every server in the network, including those combined in a cluster. Client access licenses differ—they are offered either on a per seat basis or a per server basis. Server licenses also differ, depending on the edition of Windows 2000 installed on the server. And that's still not the end. Microsoft is changing over to licensing on a subscription basis. After that happens, when a purchased license expires, the customer will have to make additional license purchases and that means additional expense. When customers are switched over to the subscription model, they will have to pay and pay, regardless of whether new features are released or not.

Microsoft forces you to upgrade much more often than Novell. Microsoft now supports its products for only three years. Novell, on the other hand, supported NetWare 3.x for 10 years and will

have supported NetWare 4.x for 10 years. More frequent Microsoft upgrades translate into higher costs.

Further driving up costs is the fact that Microsoft servers are more difficult to manage than NetWare servers. As a result, they require more staff to manage and maintain the network. In a recent TCO study conducted for Novell at WFS Financial, Gartner noted that the number of managed NetWare servers per headcount is 24.9 compared to only 10 with Windows NT/2000. That means a single administrator can manage over 150 percent more NetWare servers than Windows servers. What's more, labor rates to support the Microsoft environment are higher.

In addition, Microsoft's reputation for reliability is less than notable. Novell's reliability, on the other hand, is legendary, and the latest Novell software releases drive reliability and availability higher than ever. This inferior reliability of Windows means higher costs. It could also mean less revenue as customers defect to your competitors because your online services are often down.

Single Vendor Lock-in Risk

Although moving to a single vendor environment is seductive on the surface, it is fraught with risks. That's why most industry analysts recommend looking to solution-based offerings for network issues, in which heterogeneous and best-of-breed solutions resolve the real needs of the customer. Gartner calls this "managed diversity."

Converting to Microsoft locks your organization into a single-vendor monopoly. Microsoft continues to pursue a course of proprietary standards that

¹⁸op. cit.

work only in an environment that consists primarily of Microsoft products. This severely limits choice, preventing you from taking advantage of best-of-breed components. It also results in slower access to emerging technologies.

Locking into an all Microsoft environment also locks you in to higher licensing costs. A recent Giga survey showed four of five respondents expected their licensing costs to rise with the Microsoft subscription licensing plan, while only one in 10 anticipated that costs would be flat or dip.¹⁹ According to Gartner, the Microsoft subscription program could raise prices anywhere from 35 percent to 107 percent²⁰. Gartner notes that Microsoft is eliminating Version Upgrades, forcing customers to either repurchase their licenses or buy Software Assurance (SA). What's more, Software Assurance does not include technical support and, according to Gartner, it will significantly increase the cost of upgrading software licenses.

NEGATIVE ROI

Industry experts have stated time and again that there are no compelling reasons to switch to an all Microsoft environment.

There are no functionality advantages associated with standardizing on Windows. The latest versions of Novell software with eDirectory provide leading-edge functionality that is superior to Microsoft's offerings in key areas, including user management, storage management, Internet printing, clustering and network management.

Even more importantly, most companies today are evaluating IT investments based primarily on ROI, yet the switch to an all Microsoft environment

comes up short in ROI. In a the TCO study conducted for Novell at WFS Financial, Gartner made the following observations:

- NetWare is 52% less expensive than the Windows NT/2000 group, and 64% less expensive than the Gartner Microsoft peer group
- The cost of technical services per server for NetWare is \$3.6K compared to \$9.0K for Windows NT/2000.
- The total cost per server for NetWare is \$8.0 K compared to \$16.5K for Windows NT/2000.
- NetWare provides 12 percent greater services for 27 percent less cost than the Microsoft NT/2000 group, and 42 percent less than the Gartner Microsoft peer group.

A MORE RATIONAL APPROACH

Contrast the world we just spoke about with Novell's "One net" strategy and NetWare 6 that is indeed a more rational approach.

The network is user centric, so users can access it from any device and any location—and still experience the same familiar environment. Servers are centralized and administered from anywhere on the Internet, greatly simplifying management to the point where users can perform many administrative tasks on their own. Network architecture is based on open standards, offering wide flexibility in selecting solutions and permitting seamless integration across solutions.

What's more, NetWare 6 is additive! This means customers can leverage existing hardware and infrastructure by deploying certain components of

According to Neil MacDonald of Gartner²¹, "Microsoft has been using changes in licensing terms as a way to generate revenue for years. It allows Microsoft to come in under the radar screen with something not as blatant and obvious as raising the prices." He warns Microsoft customers to expect even more aggressive licensing changes in the future. "People should expect more of this. Our guidelines to our clients are that at least for 2002, they can look at their budget for Microsoft software and add 40 percent per year compounded." He adds, "If you don't have enough more to offer, you're going to squeeze more out of the people using your products."

¹⁹ op. cit.

²⁰ "Microsoft Hits Enterprises with Huge Price Jumps on Software Licenses," Gartner Research Report, May 10, 2001

²¹ Microsoft Customers Balk at License Changes, CNET News.com, Joe Wilcox, September 20, 2001

Network Magazine named Novell eDirectory 8.5 its product of the year for best directory service. The publication praised eDirectory for being the only directory service to support the multiple operating systems that exist in today's enterprises, including NetWare, Windows NT/2000, Solaris, Linux, Tru64 UNIX and soon IBM AIX.

NetWare 6 has garnered numerous industry and press awards, including Best Networking Product of 2001 by PC Magazine, Best of COMDEX award for Best Networking Software, and top honors in the enterprise operating platforms category of the VAR Business 2001 Annual Report Card (ARC).

Giga Information Group named Novell ZENworks for Desktops the top desktop management tool on the market.

²² InfoWorld "Don't Call it a Comeback"
<http://www.infoworld.com/articles/tc/xml/01/08/20/010820tcnware6.xml>

NetWare 6 as services that work with the existing network (e.g., iPrint, iFolder).

"Novell has finally created a NetWare server that you can drop into your existing network without creating a splash. NetWare 6 no longer requires clients to install any special software, so end-user installation is reduced to a few clicks in a Web browser."²²

The switch to a Microsoft-only environment introduces unnecessary costs and serious risks, yet it offers no compelling business or functional advantages. NetWare 6 is a more rational and cost-effective alternative that eliminates the high costs and considerable risks of the rip-and-replace approach.

Low Risk, High Reward

The negatives associated with switching to a Microsoft-only environment are enough to make most organizations stop and think. The Novell approach eliminates the negatives of the all-Microsoft approach. What's more, it delivers significant rewards and positions your organization more advantageously for the future.

With the Novell approach, your organization will:

- Maintain the high level of security that's required in today's business environment.
- Contain costs by minimizing or eliminating retraining, data conversion and new hardware deployment costs.
- Leverage the investment you've made in Novell software to realize a higher ROI.

- Minimize delays due to migration, retraining and hardware deployment, and speed the rollout of new Windows desktops with ZENworks for Desktops.
- Enjoy the flexibility and choice that Novell's open standards approach allows and ensure that you aren't constrained by dependence on a single vendor.

The Power of one Net

Novell's Net business solutions solve complex business problems and enable you to adapt to—and profit from—the opportunities of today's networked world. Our solutions combine end-to-end professional services with cross-platform Net services software to enable networks of all types—corporate and public, intranets, extranets and the Internet—to work together as one Net. Novell solutions simplify business complexity, secure and protect resources, and extend processes throughout the Net. They enable people and applications to work together and accelerate return on investments. Novell makes the vision and the benefits of one Net a reality for our customers, giving you the power to change in a world where change is a constant.

The Best Directory Service

Novell eDirectory centralizes the management of user identities, access privileges and other network resources—significantly reducing administrative overhead. Moreover, it enhances your network's scalability and performance in an Internet environment, enabling you to extend

network support to customers and partners who use the Web as their primary channel for conducting business. With eDirectory you can use directory-enabled applications to create secure, customized relationships between your network and the networks implemented by your customers and partners. You can also use eDirectory to extend your existing network infrastructure beyond your firewall and cultivate profitable eBusiness relationships.

Because the directory provides the foundation for all network operations, it is imperative that the directory on which you base your network provide rock-solid reliability, a high level of scalability and fast performance. eDirectory is the most mature and field-hardened directory available. It's the industry's most deployed directory service, with nearly 304 million licenses worldwide.

The Best NetWare Yet

NetWare 6 is the Net services software solution that brings nonstop access, Net-ready security and high availability to networked information. It enables file, print and other storage resources to be accessed as one Net across all types of networks, storage systems and client desktops. NetWare 6 ensures the nonstop availability of information that can be securely accessed through any portal, from any device, in any location. As a result, you can simplify storage resource management, secure digital assets throughout the Net and ensure the constant availability of enterprise networks and storage environments.

Simplified Management

Novell is a recognized leader in desktop and server management. ZENworks combines policies, enterprise directory services and comprehensive desktop management features to enable centralized, policy-based management of all workstations. Organizations can save literally millions of dollars by taking advantage of the ZENworks desktop management capabilities.

ZENworks for Servers brings policy-based server management, highly scalable server-to-server distribution and full-featured SNMP management to your network, so you can increase your control of local and remote servers while cutting administrative costs.

CONCLUSION

Bringing your network up to date is a tough assignment. The decisions you make today will have significant impact on your company's future. We believe that Novell's approach offers the most rational solution. It delivers significant business and functional advantages while eliminating the risks of ripping and replacing. With Novell, you can take advantage of leading-edge networking services without incurring the huge costs and risks of replacing your entire software infrastructure.

But don't take our word for it. Novell NetWare, eDirectory and other Net services continue to garner praise from industry press, independent analysts and customers. As ZDNet's Steven Vaughan-Nichols says, "If you're already using NetWare, stick with it. If you're not, start thinking about it."²³

ZDNet's Steven Vaughan-Nichols says NetWare "corners the market" on stability. He notes, "Between reboots, I've run NT for weeks, Windows 2000, Linux, and Unix servers for months, and NetWare 3.1x/4.x for years."²⁴

International Data Corporation (IDC) found that ZENworks gave customers an average three-year return on investment of 2,039 percent and a payback time of less than three months.²⁵

NNetcraft reports in its June 2002 survey of Web server software usage on the Internet that Apache is the market leader with 59.67% market share, while Microsoft IIS lags far behind with 28.96% market share. The survey was based on more than 38.8 million sites.

²³ op. cit.

²⁴ "NetWare still a top-notch NOS," ZDNet, September 10, 2001

²⁵ "Quantifying the Business Benefits of Directory-Based Desktop Management," IDC

A ZDNet (UK) article reports that Gartner recommends replacing Microsoft IIS with servers that are less susceptible to attacks.²⁶ Gartner recommends Web server software such as iPlanet and Apache, which have much better security records than Microsoft IIS and are not under attack by the majority of virus and worm writers. (The Apache Web server is included with NetWare 6 at no extra charge.)

Links for Additional Information:

NetWare 6:	www.novell.com/netware6
Additional competitive information:	www.whytheylie.com www.novell.com/competitive/netware/

Impartial Press regarding NetWare:

Sleeping NOS Giant awakes:	http://techupdate.zdnet.com/techupdate/stories/main/0,14179,2813097,00.html
Novell Crushes its rivals, leaving Microsoft behind:	http://www.varbusiness.com/sections/research/research.asp?ArticleID=30028
NetWare 6—A Gift from God—	http://www.it-analysis.com/article.php?id=1341
For additional press articles on NetWare please see:	http://www.novell.com/products/netware/nw6_news.html

Awards:

PC Magazines 2001—Network operating system of the year:	http://www.pcmag.com/article/0,2997,s%253D25063%2526a%253D18049,00.asp
Comdex 2001—Best of Show—Network operating system of the year:	http://www.novell.com/news/leadstories/2001/nov27/
For additional award information please see:	http://www.novell.com/products/netware/awards.html

²⁶ “Drop Microsoft IIS now,”
ZDNet (UK), Wendy McAuliffe,
September 25, 2001

A recent article in Interactive Week reports that insurance companies such as J.S. Wurzler Underwriting Managers charge Microsoft IIS customers more than those with other operating systems because these companies have a higher risk of exposing corporate data and other information that is supposed to be private. "We saw that our NT-based clients were having more downtime due to hacking," says John Wurzler, founder and CEO.²⁷

²⁷ "Insurer Considers Microsoft NT High-Risk," Interactive Week, Robert Bryce, reported in ZDNet News

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