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PUBLISHED FOR
NOVELL CONNECTION
MAGAZINE.

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Balancing Act
Novell ZENworks Endpoint Security Management – Balancing the Needs of Mobile Security and Agility

The deployment of more laptops than desktops has been a rising trend at most organizations for a number of years. The primary driver for this trend is that mobility tends to increase end-user productivity. In spite of this increased productivity, the mobility of users creates significant security hardships for most organizations. Since users need access to their data while they’re on the move, they end up either copying the data to their local laptop drives or they access their data over network connections that are not managed by the organization. As a result, there tends to be a polar relationship between security and the increase in productivity that mobility provides. The further your data moves from the protective boundaries of your physical operations, the more you increase the level of risk associated with protecting that data and preserving system health.

Fortunately, ZENworks Endpoint Security Management delivers the data, access and device protection that laptops need no matter where they go. The solution provides the necessary security defenses, safeguards and controls you need to neutralize the polar affect of giving users the agility they need to be productive while on the move.

Mobile Data Protection
There are a number of vital questions that if organizations leave unanswered in terms of mobile data protection, they open themselves up to serious profitability, credibility and liability consequences. (See Threat Assessment) In terms of mobile data protection, a few of these questions include the following. Do your users ever store on their laptops or remotely access sensitive data, such as intellectual property or customer data? Can users attach and access removable storage devices on their laptops, such as thumb drives, CD burners or iPods? If a laptop or removable storage device is lost or stolen, can its sensitive data be compromised? These are just a few questions you need to answer to ensure the security of the data on your mobile devices.

Thumbsucking, podslurping, or a lost or stolen laptop can result in loss or theft of data with potential costs in the millions from regulatory fines, lawsuits and/or loss of business. To address these concerns, ZENWorks Endpoint Security Management provides a variety of protections, including fixed disk encryption, removable storage encryption and storage device controls.

Using AES 256 bit file based encryption to protect data on lost or stolen laptops, the solution allows you to define, by policy, safe harbor locations on your users’ laptops where they can store any sensitive data that should be encrypted. (See Figure 1.) If desired, you can specify the entire contents of the user’s My Documents folder be encrypted as well.

ZENworks Endpoint Security Management delivers the data, access and device protection that laptops need no matter where they go.

To protect against data theft from thumbsucking, podslurping or other similar hacks, you can dictate, by policy, that data on any removable storage device attached to a user’s computer be encrypted as well. While the encrypted data would be unusable to data thieves, your users and their co-workers would be able...

Figure 1: ZENworks Endpoint Security Management utilizes AES 256 bit file based encryption to protect sensitive data stored on laptops.
Balancing Act  TECH TALK 1 by David Ferre  continued

Figure 2: You can define a variety of enforced behaviors for removable devices to protect against data theft from thumb sucking, podslurping or other similar hacks.

<table>
<thead>
<tr>
<th>Storage Device Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
</tr>
<tr>
<td>SanDisk Cruzer Mini USB Device</td>
</tr>
<tr>
<td>2GB Flash Drive USB Device</td>
</tr>
<tr>
<td>Gem Flash Drive USB Device</td>
</tr>
<tr>
<td>SanDisk USB Flash Micro Device</td>
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<tr>
<td>Phone</td>
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<tr>
<td>SanDisk USB Flash Micro Device</td>
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<td>SanDisk USB Flash Micro Device</td>
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To share and read the encrypted data on these removable devices from any computer that has the same policy as the computer that originally encrypted it. By policy you can also allow a sharing folder to be activated on the removable storage device that would allow users to share files with others outside their policy group (including third parties) through the use of an access password, while maintaining the same level of encryption.

In terms of other storage device controls to protect your data, Novell ZENworks Endpoint Security Management allows you to define a variety of enforced behaviors for removable devices that attach to your endpoints, including the following: (See Figure 2.)

- Allow all access, disable all access or allow read-only access
- White list approved devices by the unique serial number of the device and by manufacturer and model for USB devices
- White list device and encryption interoperability
- Export files written to and accessed from storage devices
- Controls for disabling AutoPlay and AutoRun

> Mobile Access Protection

The need for mobile access protection really comes into focus when you look at how your users gain network access when they’re outside of the office. When mobile workers use open networks, such as hot spots, hotels, airports, coffee shops or other locations, you have no way of knowing the level of security that exists on these networks. Furthermore, will your users be able to tell if others can insert themselves into their communications? If data is transmitted in the clear, your mobile devices can be subject to eavesdropping or man-in-the-middle attacks. To ensure that transmitted data cannot be accessed even if communications are captured or observed, you can configure your policies in ZENworks Endpoint Security Management to require your mobile devices to use a VPN solution that encrypts all communications that take place outside the boundaries of your network. (See Figure 3.)

To ensure the integrity of your mobile devices and your network infrastructure, ZENworks Endpoint Security Management can verify that your devices are running the latest antivirus and anti-spyware software.

There is also a need for access protection of your mobile devices within your corporate network as well. With WiFi now a standard feature on laptops, measures need to be taken to ensure users don’t open backdoors into their machines or your network infrastructure by connecting knowingly or unknowingly to other wireless networks.

Figure 3: To ensure that transmitted data cannot be accessed even if communications are captured or observed, you can create policies that require mobile devices to utilize a VPN for external network access.
Balancing Act  TECH TALK 1 by David Ferre continued

networks within proximity of your location. Other wireless potential threats to your infrastructure can be caused by accidental associations, evil twins and bridges into private networks. To protect against these wireless risks, ZENworks Endpoint Security Management gives you the ability to enforce, by policy, a variety of wireless controls, including the following: (See Figure 4.)

- Disable wireless access when a wired connection is present
- Disable all wireless radios, including devices not owned by the organization
- Disable ad hoc peer-to-peer wireless networks
- Disable adapter bridging
- White list or black list SSIDs and access points
- Enforce a minimum security level for access point usage, such as WEP64 or above
- Control additional communications via Bluetooth, Infrared (IrDA), 1394 (Firewire), serial/parallel ports, modems and wired Ethernet

> Mobile Device Protection
The integrity of your mobile devices is not only critical to the performance of the device itself, but it’s critical to the integrity and performance of your entire infrastructure. If a laptop has been exposed to malware while on the road, and it’s allowed to connect to your network upon return to the office, it can expose your entire network to viruses, bots, spyware and other malware. To ensure the integrity of your mobile devices and your network infrastructure, ZENworks Endpoint Security Management can verify that your devices are running the latest antivirus and anti-spyware software. If a device falls out of compliance, it can initiate remediation efforts to bring it back into compliance and quarantine it from your network until it is in compliance.

To provide additional protection to all your endpoints, ZENworks Endpoint Security Management uses a stateful personal firewall that only allows solicited inbound communications. This protects it against the infection and propagation of malware that could be introduced into your network by some other means, such as a non-managed infected machine. Furthermore, the solution provides application controls that can prevent the execution of dangerous and unauthorized applications.

> Making a Difference
While ZENworks Endpoint Security Management has a comprehensive arsenal of security features to safeguard your mobile devices, the methodologies the solution uses to implement these protections significantly differentiate it from other offerings.

The first of these methodologies deals with policies and client self-defense. Instead of leaving endpoint security decisions up to end users, the solution gives you and your IT security specialists the power to make those decisions centrally for the entire organization. It allows you to centrally configure policies that are published to user or machine accounts in an organization’s directory services (Active Directory or eDirectory) and then have those policies enforced at the endpoint. Furthermore, the solution’s client agent has a built-in self-defense mechanism that prevents users from turning off or circumventing security policy settings even if they have administrator privileges for their laptop. This mechanism protects the agent from being intentionally or unintentionally uninstalled, shut down, disabled or tampered with in any way that would expose sensitive data to unauthorized users.

ZENworks Endpoint Security Management has a comprehensive arsenal of security features to safeguard your mobile devices.

A second key differentiator for ZENworks Endpoint Security Management is its ability to automatically adjust security settings and user permissions depending on the location of the device. The solution provides you the ability to define a variety of locations, based on network settings, and then as a laptop moves from one location to another the solution’s agent can detect its current network location and enforce
applicable policy settings. This allows you to configure tighter security restrictions as the laptop moves from the relative safety of your managed network environment into less secure environments. For example, you might allow removable storage device access while in the office, but when laptops move outside the office their removal storage access can be disabled or changed to read only.

Threat Assessment
To help you evaluate where your organization stands in terms of addressing the needs of mobile data protection, mobile access protection, and mobile device protection, Novell has made available a free online threat assessment tool. The threat assessment asks the key questions that help you determine if you’re overlooking any areas of concern in terms of securing your mobile and fixed endpoints. To take the threat assessment, visit www.novell.com/threatassessment/.

A third powerful differentiator derives from the solution’s driver level enforcement. Most endpoint firewall technologies operate at the application layer or as firewall-hook drivers, which makes them susceptible to a variety of protocol-based attacks. However, ZENworks Endpoint Security Management has an NDIS layer firewall that operates at the network driver level. This enables it to protect the computer the moment any traffic enters the Network Interface Controller (NIC), blocking any unwanted traffic before the traffic hits the operating system’s network stack.

In addition to its NDIS firewall, the solution also provides additional driver level protections. Its TDI filter driver allows the agent to block outbound network access from any application. The storage filter driver can disable or configure as read-only any device that dynamically enumerates onto the file system to protect against data theft from things like USB devices or flash memory cards. In a non-intrusive manner, the file system driver can block the execution of any file that poses a threat to your data.

> Balanced Mobility and Agility
As you strive to balance the needs of security and mobility, ZENworks Endpoint Security Management allows your users to enjoy productive agility while addressing the three main areas of concern that affect mobile security. For mobile data protection it helps you achieve regulatory compliance while safeguarding sensitive data. It ensures safe and secure mobile communications. And the solution further increases user productivity while decreasing IT involvement by guaranteeing the system health and integrity of your mobile endpoints.
Fix and Find Problems Faster
A Novell Business Service Management Dashboard Walkthrough

In last month’s Novell Connection, we looked at the technical and business case for Novell Business Service Management (BSM) Dashboard—the first and only management solution that aggregates information from all your existing management platforms to provide role-based, single-pane-of-glass visibility into IT, operations and business management information.

IT, Skepticism Is a Primary Job Requirement
To learn more about the benefits of a system that bridges information silos across your physical and virtual infrastructure, see last month’s article. Because we know you IT types are a skeptical bunch, this month we’re going to take you through a screen-by-screen scenario showing BSM Dashboard in action. These actual screenshots should give you a sense of how the solution works, so you can gauge for yourself how a BSM Dashboard might affect your management style, not to mention your business.

In this example, BSM Dashboard is pulling data about the physical infrastructure from physical and virtual IT management data sources including HP Openview, Tivoli Netcool and BMC Remedy. For the virtual infrastructure, BSM Dashboard is pulling data from PlateSpin Recon and VMWare V-Sphere IT. Custom adapters, running on the BSM Server, are used to gather this data from your existing management platforms.

In this way, BSM Dashboard serves as an enhancement and extension of your current management environment—not a replacement. It makes the data you collect more useful and actionable than ever before. (See Figure 1.)

All the information that feeds into BSM Dashboard is integrated, normalized and organized into a state-based logical model of the IT infrastructure and the applications and services it supports. This allows BSM Dashboard to pinpoint the status of any managed IT asset and, based on dynamic rules, analyze how each asset affects other assets as well as the applications and services they support. Key business metrics are also integrated into the solution to provide a better understanding of the financial impact of outages when they arise.

This aggregated information is then presented in role-based views to serve specific executive and managerial functions, with the unmatched ability to drill down from a high-level view to the specific assets, relationships, dependencies and performance characteristics that exist anywhere in your IT environment, across physical and virtual systems. Just a few mouse clicks, and you have the specific information you need to find and fix technical problems before they become business problems.

Figure 1: BSM Dashboard collects and consolidates data from all your existing IT management sources.
The Business Executive's View

Let's take a look at how the information gathered and organized by BSM Dashboard can be presented to people depending on their specific roles and responsibilities. In our example, here's the top-level view a business executive might see. (See Figure 2.)

This particular view shows a number of business and technology metrics that can instantly help an IT or business executive understand the health and availability of this mission-critical business service. Center stage on the BSM Dashboard is a birds-eye view of availability of the e-commerce application, with instances running at three data centers spread across the U.S. The color-coding makes it obvious at a glance that something is wrong at the New York data center.

The right panel shows the emerging problem in IT and business impact terms, flagging trouble in the areas of system availability, transaction time and response time—as well as showing how specific business metrics such as login rate, cart abandonment and order conversion are being adversely affected. And as fewer customers are able to log in and complete their orders, we can expect that customer satisfaction metrics will also be significantly affected. Looking at the map, we can even see a running total of how much this problem is potentially costing the business.

Obviously, we need to find and fix the problem as fast as possible. But the main thing an IT or business executive wants to know is that the problem is being given high priority—especially since it is impacting a critical business service. The bottom pane of this view provides the executive with easy access to the most recent trouble tickets issued for the troubled service. This pane also shows whether the problem has been logged with an incident ticket, and displays the “last” and “next” activities planned to address the problem. Ownership and contact details are listed in the lower right-hand pane, giving the executive easy access to the IT service manager responsible for the fix. If necessary, the executive can call the IT service manager, inquire about the status of the fix and emphasize the business need to get the problem fixed as quickly as possible.

The problem may be solved before the executive can even pick up the phone, however. Thanks to role-based views customized for IT users, chances are the Trouble Ticket owner is already well on the way to pinpointing the source cause and implementing a solution.

The IT Service Manager's View

An IT service manager has different problems to solve than a business executive, requiring a different style of analysis. BSM Dashboard automatically provides the customized view that each type of user needs. For example, clicking on the Service Manager View tab presents the view shown in Figure 3.
In this view, a Process Portlet shows the high-level IT processes and their interrelationships, showing the service manager more precisely where the problem exists within the IT infrastructure.

Color-coding shows how each process is performing. In this case, BSM Dashboard shows the problem at the New York data center originates in the Web Server East. By clicking on the red icon, the user can drill down to the actual physical and virtual servers in order to pinpoint the exact problem. (See Figure 4.)

Now we have a view of the virtual hosts and the physical hosts they're running on. To provide this view, BSM Dashboard is pulling information from both Platespin Recon and VMware vSphere, saving the time, effort and potential confusion of working with both management platforms independently.

The red icons in the left pane show the problem is occurring on the virtual host, not the physical server. The right pane shows a further drill-down into the actual virtual application itself, which is the source of the offending problem—not the ESX host itself.

By clicking on the icon for the broken virtual application, the IT manager can drill down once more to get to a detailed view of the alarms and actual root cause analysis for this problem—a specific process in the application that has gone on the blink. (See Figure 5.)

All this information is available through your existing portals, but BSM Dashboard adds the ability to see the relationships between all IT components on a single screen, making it far easier and faster to track down and resolve a problem no matter where it's occurring or whatever systems it's affecting. There's no need to sort through different siloed databases or to manually compile and analyze disparate data. Just a few mouse clicks and you're at the root cause—no
matter whether it’s a virtual or physical system, no matter which applications are affected and no matter which IT management systems own the data.

> The Operations Manager’s View
Now let’s briefly turn to the operations manager’s view of the same problem. This view is quite similar to the IT service manager’s view, with alarms and incidents occupying the majority of real estate on the operations view home page. (See Figure 6.)

From here, we can drill down to the alarms from each alarm source—for example, Netcool, V-Sphere and so on—to understand each element of the faulty e-commerce application. (See Figure 7.)

The operations manager can also view the hierarchy of physical and virtual elements in the environment. This makes it easy to see how alarms are percolating up the relationship chain, analyze how operations may be affected and drill down with a click to see performance details for any application or service. (See Figure 8.)

> Create Your Own Pathways to Faster Problem Resolution
Keep in mind that we’ve only shown three possible paths through Novell Business Service Management Dashboard, each showing just one path that might be taken by three different types of users analyzing the same issue. There are a lot of other paths each user could take, and there could be other types of users. All of this can be customized to meet your needs, based on your data, business rules and user roles.

In other words, we can give you a sense of how flexible, powerful and easy-to-use BSM Dashboard is, but we can’t tell you in this article exactly how you’ll be using it in your specific environment. For that, you need to schedule some face time with your Novell sales representative. BSM Dashboard can be customized out of the box to meet your exact needs in a matter of days—not months. So there’s no excuse for waiting. Make the call today and in almost no time you can have centralized, task-specific views that span all your IT data sources to help you find and fix problems faster.
Building Your Virtual Landscape Without Messy Disruptions
Using PlateSpin Solutions to Implement and Test Your Virtualized Data Center

This is the second article in a three-part series on how to best assess, deploy and refine your virtual infrastructure using PlateSpin Recon and PlateSpin Migrate products.

In the first article, we laid the groundwork for success with tips and tricks for consolidation planning in your virtualized data center using PlateSpin Recon 3.7.

This article picks up with us breaking ground on automating the actual implementation process using PlateSpin Migrate. In this article, we will also discuss the vital role that testing plays in ensuring a successful implementation.

> PlateSpin Migrate
Whether you’re looking to consolidate a large number of business-critical servers or simply minimize your downtime moving individual workloads, PlateSpin Migrate is your workload migration solution. What exactly comprises a workload? At the most basic level, a workload encapsulates the data, applications and operating systems that reside on a physical or virtual host.

PlateSpin Migrate allows you to move server workloads over a local network, wide area network or the Internet via TCP/IP. PlateSpin Migrate decouples the underlying server hardware and transfers workloads to and from physical servers, virtual hosts or image archives—what we call “X2X.” Most competing products limit you to just physical-to-virtual (P2V) migrations.

PlateSpin Migrate provides organizations with a mature, proven solution for testing, migrating and balancing workloads across infrastructure boundaries—from desktops to servers.

> PlateSpin Migrate: The All-Purpose Solution
Because of PlateSpin Migrate’s flexible X2X migration capabilities, companies employ the solution in many different ways. Here are four examples:

- **Server consolidation** – As more and more organizations become aware of the benefits of virtualization technology, server consolidation via a physical-to-virtual (P2V) migration has become an important project in many companies.
- **Virtual workload migration** – Many times, a company may want to move workloads from one virtual platform to another (V2V), such as when changing hypervisor vendors, while minimizing downtime and investment.
- **Virtual workload de-virtualization** – As a company grows, it often needs to move workloads from a virtual platform to a physical host (V2P) that is more accommodating to the workload’s resource needs.
- **Hardware migration** – As business applications grow, organizations commonly have to move workloads from one physical platform to another (P2P) to overcome resource usage issues and aging hardware problems. Another common reason for hardware migration is hardware lease expiration.

In this article, we’ll concentrate on the P2V server consolidation model.

> Server Consolidation with PlateSpin Migrate
Today’s IT services are expected to be up and running 24x7. Users do not easily tolerate extended downtime for maintenance or relocation. Server consolidation needs to happen quickly and with as little disruption to users as possible.

PlateSpin Migrate automates all the manual processes that would otherwise be required to move a workload to a new location. This automation enables you to significantly reduce conversion time, lower stress on your network and decrease overall migration costs.

> Reducing the Impact of Slow WAN Links
Where a WAN link is involved, such as with relocation projects or offsite consolidation, it can take days to stream even a few hundred gigabytes.

Through its Server Sync and imaging functionality, PlateSpin Migrate allows you to perform staged migrations through a physical-to-image-to-virtual (P2I2V) model. This allows you to capture an image of the physical server on a portable hard drive, USB drive or DVD; physically ship the image media to the new location; deploy the image on a virtual machine and then synchronize the changes over the WAN. By removing the necessity for a full system replication, Server Sync can dramatically accelerate workload migrations over WANs.
Your How-to Guide for PlateSpin Migrate

Step 1: Use the Newest PlateSpin Versions
Make sure you have the latest versions of PlateSpin Recon and Migrate. If your maintenance is current, the updates are free.

Step 2: Export Your Server Consolidation Plan
Once you have decided on a server consolidation plan, simply export your preferred scenario from PlateSpin Recon 3.7 into an implementation project for use with PlateSpin Migrate.

1. In the PlateSpin Recon 3.7 interface, choose a PlateSpin Migrate server. Right-click on your selected server and select Implement Using PlateSpin Portability Suite...
2. Point the would-be ESX servers to real ESX servers. This will create jobs that can be modified and scheduled to run in PlateSpin Migrate. (See Figure 1.)

Step 3: Import Your Implementation Project
Import your consolidation plan image into PlateSpin Migrate 8.1.1. This action pre-populates migration jobs based on your plan:

1. Launch PlateSpin Migrate 8.1.1.
2. Open your implementation project. (See Figure 2.)

Best practice: We recommend PlateSpin Recon and PlateSpin Migrate run on physically separate servers, so they don’t compete for resources during planning, migration or testing.

Step 4: Discover Your Servers
Discover source and target servers, which can be either physical or virtual machines:

1. Click the Discover Server Details button in upper left of screen.
2. Enter a host name or IP address. (See Figure 3.)
Step 5: Run the Migration Wizard
1. Select Move Workload. The migration wizard will pop up.
2. Choose a source server, using its discovered host name.
3. Choose a target server, using its discovered host name.
4. Click Start Wizard. (See Figure 4.)
5. Enter your Credentials for both source and target servers:
   - For Windows servers, you need a minimum equivalent of a local or domain admin account.
   - For Linux or ESX servers, you need a root or sudo account.
6. From the menu on the left, select the **Transfer Method**:

- **Take Control** takes the source server offline during migration. Use Take Control transfer when you want to migrate legacy Windows NT 4.0 servers, Linux servers and domain controllers.
- **Live Transfer** copies the workload from the source to the target without interrupting the source machine. Use Live Transfer when you want to reduce the service downtime during Windows workload relocation.

Choose the **File, Block or Snapshot option**:

- **File** transfers are typically only used today for X2I migrations. That's because block-to-block transfers are faster in every way. If your license permits block transfer, use that instead.
- **Block** transfer is appropriate for migrating database servers, mail servers and application servers.
- **Snapshot** uses Volume Shadow-copy Service (VSS) technology, found in Windows Server 2003 and later, to copy large SQL and Exchange databases without stopping services. (See Figure 5.)

7. Again, from the menu on the left, select **Host Name** if you would like to modify the host name. This is mainly used on the provisioning side, when cloning a server.

8. Select **Networking** to examine the network configuration, including IP address, DNS and WIN settings.

9. **Select VM Configuration** from the left-hand menu lets you preconfigure the virtual machine name, CPU and memory settings for the target virtual machine.

10. Choose which drives will be part of the move by selecting **Volumes** in the menu on the left. You can also modify...
drive sizes prior to data migration.

11. Through the Services menu, you can start, stop and disable Windows services during file transfer, while preparing the target or at the target’s end state.

**Best practice**: When migrating a Microsoft Exchange server, disable the services on the target during the cutover. During configuration, you will need to reboot several times. If you leave the services enabled, Exchange will start up with every reboot, potentially adding an hour or more to your migration. When the migration is complete, resume the services.

12. Add a script to perform any action you want to include as part of the migration process using *Post Conversion*. For example, add automated testing or validation.

13. **Advanced** options allow for an even more granular job configuration:
   - The **Schedule** option lets you prepare migrations in advance and run them at a later time.
   - **Notifications** send up-to-date progress reports by e-mail during migration. You can also be alerted when a failure occurs or when a job finishes. (See Figure 6.)

14. Finally, click Start to run the job. (See Figure 7.)

*Figure 6: Advanced options provide extremely granular control over your server migration.*

*Figure 7: Once you’ve configured your transformation job, PlateSpin Migrate does the rest automatically.*
> **Testing: Ensuring a Natural Extension of Your Environment**

Thorough testing once a project has begun is perhaps the most often overlooked item in drafting a blueprint for success. By recognizing testing as an integral part of the project, you are able to build transformation projects as safely as possible.

Staged server consolidation works well for testing too. Using PlateSpin Server Sync, you can transfer a running workload onto a target virtual machine, test the workload in the new location while continuing to run the source and then perform a “top-up” transfer of any changed data before cutting over the workload.

> **Harvesting Success**

Thorough planning and testing—both before and after migration—help ensure a successful project. This approach allows data center managers to look at data center transformation from a holistic “big picture” view, and lays the groundwork for not only a one-time transformation but also true ongoing data center optimization.

The third and final article in this series will examine using PlateSpin Recon for ongoing performance optimization of your virtual infrastructure to help minimize risks and maximize ROI.

> **For More Information**

For additional resources on server consolidation, check out these tools:

- 5-minute online demo
- PlateSpin Migrate Quick Start Guide
Van de Water-Raymond

Reduced administration time and costs by 50 percent

Van de Water-Raymond migrated its SCO UNIX and Microsoft Windows environment to Novell Open Workgroup Suite running on SUSE Linux Enterprise Server. As a result, the company reduced administration time by 50 percent, as well as IT travel time and costs by 80 percent.

>Overview

Based in Quebec, Canada, Van de Water-Raymond provides complete services in sales, market analysis, warehousing and distribution for all divisions of the food industry. As one of the largest independent food brokers in Quebec, Van de Water Raymond Ltd/Ltée is a proud family owned business, established in 1960 and preparing to celebrate 50 years of service, as well as growth and continued success.

> Challenge

Van de Water-Raymond had an aging IT infrastructure, based on SCO UNIX and Microsoft Windows, that was costly and time-consuming to maintain. A disparate IT environment also made it difficult to communicate effectively and to get data from various systems. The company wanted to modernize its infrastructure to a more flexible environment in order to accommodate changing business requirements. Centralizing its IT environment on an open platform would also make it easier to maintain.

> Solution

Van de Water-Raymond evaluated a move to Microsoft Windows, but needed a more flexible and open platform that wouldn’t require a significant hardware investment. Working with Adaris Technologies, a Novell Gold Partner, the company selected SUSE Linux Enterprise Server and Novell Open Workgroup Suite, which includes Novell Open Enterprise Server, Novell ZENworks Configuration Management, Novell GroupWise, SUSE Linux Enterprise Desktop and OpenOffice.org Novell Edition for Windows.

“Novell ZENworks Configuration Management gives us accurate, real-time inventory reports and helps us better manage license compliance.”

-Sophie Raymond
IT Director
Van de Water-Raymond

“We were confident that the combination of tools in Novell Open Workgroup Suite would make us much more efficient and work well in our mixed environment,” said Sophie Raymond, IT Director at Van de Water-Raymond. “The multi-language licensing and support from Novell was also important as we conduct business in both French and English.”

The company migrated to Novell Open Enterprise Server running on SUSE Linux Enterprise. Users can now take advantage of Novell iFolder to keep the files on their laptop and desktop in sync, as well as NetStorage for immediate access to personal and group files from any location. With Novell iPrint, users can select printers from a graphical map and print to any location.

Van de Water-Raymond moved its ERP and accounting application, Open System Accounting System, from SCO UNIX to SUSE Linux Enterprise Server and VMware ESX running on HP servers. With a more flexible environment and the ability to easily add new virtual servers, the IT staff can better meet the changing needs of the business.

“We have found Linux to be extremely reliable and stable,” said Raymond. “Our environment today does not compare to what we had before—it would be like comparing a bicycle to a Ferrari. Since migrating to Novell Open Workgroup Suite, we have a centralized infrastructure that is so much easier to manage.”

Van de Water-Raymond has standardized its
desktops with Novell ZENworks Configuration Management. The IT staff can now image new machines in half the time and can remotely deliver new applications to any location. The company has also automated inventory management, replacing its previous time-consuming manual processes.

“Performing an inventory of our hardware and software assets used to be so time-consuming that our desktops just kept getting more out of date,” said Raymond. “Novell ZENworks Configuration Management gives us accurate, real-time inventory reports and helps us better manage license compliance.”

Van de Water-Raymond migrated its users from a mix of Microsoft Exchange and Outlook to Novell GroupWise running on SUSE Linux Enterprise Server. The company now has a single collaboration platform for e-mail, calendaring and task management. BlackBerry Enterprise Server provides support for its mobile users.

“Since migrating to Novell GroupWise, we have had zero downtime and found it requires significantly less administration than Microsoft Exchange and Outlook,” said Raymond. “Our users love it.”

“Adaris Technologies has been a great partner and worked hard as this was a huge project,” said Raymond. “The Adaris team was extremely professional, efficient and knowledgeable—we could not have accomplished something of this magnitude without them.”

> Results

By migrating to Novell Open Workgroup Suite, Van de Water-Raymond has consolidated servers by 75 percent and has reduced administration time and costs by 50 percent. The company was able to move to a more stable, open platform, while leveraging its existing hardware.

Novell ZENworks Configuration Management has helped the company reduce IT travel time and costs by 80 percent as the IT staff can now image machines and distribute applications without leaving their desks.

“Without Novell, we would have had to hire more people, spend significantly more money and still would not have the same business flexibility that we get with SUSE Linux Enterprise Server,” said Raymond. “With the time we save by using Novell solutions, we can respond better to our users, as well as plan for the future.”

Products and Services

- SUSE Linux Enterprise Server
- Novell Open Workgroup Suite

Results

- Consolidated servers by 75 percent
- Reduced administration time and costs by 50 percent
- Reduced IT travel time and costs by 80 percent
The Apple iPhone is gaining smartphone market share. According to Gartner, Inc., Apple’s share of worldwide smartphone sales grew from 5.3 percent in the first quarter of 2008 to 10.8 percent in the first quarter of 2009. Moreover, the company sold nearly four million iPhones in the first quarter of 2009. (Source: http://www.gartner.com/it/page.jsp?id=985912). While the iPhone was designed with the consumer in mind, it’s quickly finding its way into the enterprise. Its compact size, attractive pricing compared to laptops and, quite frankly, Apple’s cachet make it a natural choice for organizations that want to equip a growing number of employees with technologies that increase their efficiency and effectiveness. Another factor driving the adoption of iPhones in the enterprise is that employees are buying these devices on their own and using them for work. The growing popularity of the iPhone is creating a huge market for applications. IDC reports that in the first year Apple’s App Store offered more than 50,000 applications, and application downloads exceeded one billion.1 The vast majority of these applications are for consumers; however, a number of enterprises are making headway in deploying applications that provide substantial productivity gains to multiple employee groups, from frontline personnel to senior executives. These applications include:

- Collecting data in the field, including customer data and recording site conditions using iPhone features such as GPS and the built-in camera
- Reviewing and approving contracts, service requests and other critical documents
- Monitoring sales figures, generating reports and analyzing business data
- Viewing sales opportunities, tracking leads and managing the pipeline
- Checking inventory, submitting orders, tying into accounting systems and pulling up invoices
- Attending online meetings, accessing shared contacts and calendars, and connecting with colleagues through instant message and enterprise communication services
- Tracking to-do lists, scheduling appointments and setting alerts
- Booking airline travel, rental cars and hotels, and finding restaurants and services
- Troubleshooting, supporting and administering the IT infrastructure using VNC to access a remote desktop, FTP to transfer files or SSH for a secure shell session
- Tracking shipments and deliveries, monitoring driving behavior, determining the best route and capturing billing and payroll information.

Apple’s iPhone Business Web site profiles a number of companies that are gaining a competitive edge with innovative mobile applications.

> So What’s the Hold-up?

Until recently, development of enterprise applications for the iPhone has lagged the consumer market. A major reason for the hold-up is a lack of iPhone development expertise in the enterprise. Many companies have standardized on the Microsoft .NET framework application development, and there are literally millions of skilled .NET developers around the world.

.NET is generally considered a technology for targeting Microsoft platforms only. Beyond this, Apple’s technical and license requirements have meant that iPhone apps had to be built using C and Objective-C, which lack the benefits of higher-level languages such as C# and Java.

Aside from general lack of familiarity with Objective-C, many developers prefer managed programming languages such as C#, .NET and Java because they can write code faster and with fewer errors with these languages compared with lower-level languages such as C or Objective-C. These productivity gains derive from the fact that higher-level languages automatically take care of garbage collection, memory management, thread management and other chores that have to be handled manually in lower-level languages. However, the iPhone developer program license restricts developers from distributing scripting engines or Just-In-Time (JIT) compilers, which are commonly used to provide these features in managed runtimes (such as .NET).

The bottom line is that enterprises have faced the costly proposition of acquiring iPhone development skills either by spending time and money on training for the current staff, hiring new people with the right skills or contracting out iPhone application development.
MonoTouch is a game changer because it brings the .NET development environment to iPhone application developers. The MonoTouch software development kit (SDK) from Novell came out of an open source initiative sponsored by Novell and engineered by the Mono Project. The kit contains:

- A suite of compilers, libraries and tools for integrating with Apple's iPhone SDK
- Integration with MonoDevelop, a cross-platform IDE that offers a .NET development experience on Mac OS X, to provide an experience with which Visual Studio developers coming from Microsoft Windows will be comfortable
- Microsoft .NET base class libraries, with which .NET developers are already familiar
- Managed libraries for taking advantage of native iPhone application programming interfaces (APIs) that enable developers to exploit iPhone specific features, such as multitouch interfaces, the GPS and accelerometer
- A cross-compiler that can turn .NET executable files and libraries directly into native applications for distribution on Apple's App Store or for deployment to enterprise iPhone users
- Xcode integration to enable application developers to test on the device or in Apple's iPhone Simulator and ship applications to the Apple Apps Store for distribution

It's a powerful combination that delivers important benefits to any enterprise. In particular, it simplifies iPhone development by allowing developers to use code and libraries they've written for the .NET development framework and programming languages such as C#. Consequently, enterprises that have standardized on .NET can leverage the knowledge and skills of their developers. They don’t lose time and money trying to hire expertise or training the current staff to use lower-level programming languages. Because these developers already understand the business of the enterprise, they have the insight required to develop effective iPhone applications that drive corporate success. In short, MonoTouch enables these professionals to immediately begin developing applications for the new mobile computing environment.

> Conclusion

In the 1990s, laptops delivered huge productivity gains by empowering mobile workers. In 2009, smartphones are ushering the next wave of mobile computing. Apple’s iPhone is leading the charge. Development of iPhone enterprise applications has lagged due to the cumbersome nature of the initial iPhone development environment and tools. MonoTouch changes all that. MonoTouch from Novell allows millions of .NET developers to use their current tools and skills to satisfy the skyrocketing demand for enterprise iPhone applications.

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IDC, Blowing Out the Candle (and the competition): Happy First Birthday to the Apple Apps Store, Doc # lcUS21926409, July 2009
Don’t worry, Novell is not planning to install a 10-meter diving platform next to the Technology Lab or offer a new “SCUBA for Nerds” session track. At BrainShare 2010, “diving deep” is all about helping you take advantage of more in-depth, hands-on technical opportunities that can have an immediate impact on how you do your job. To make sure that happens, Novell is enhancing and expanding two of the most popular “deep dive” attractions at BrainShare—the Installation and Migration Depot and Novell Advanced Technical Training (ATT).

Migration without Frustration
If you’ve attended BrainShare before, you already know the Installation and Migration Depot gives attendees a unique opportunity to sit down at a workstation, install a variety of Novell software on actual systems and even bounce questions off Novell engineers and experts who are always standing by to share tips, tricks and insights.

Since its humble beginnings a few years ago, the Installation and Migration Depot has grown steadily in popularity, and every year Novell has added more hands-on stations to accommodate the demand. BrainShare 2010 accelerates this trend by making the Installation and Migration Depot an even larger and more prominent part of the new BrainShare IT Central area. This includes providing more migration stations than ever before and making more Novell products available for migrations. And for the first time ever, you’ll even have the option to schedule time at the Installation and Migration Depot through the online BrainShare session scheduler, so you can make sure there’s a seat available and make the very most of the time you spend at the Depot.

The Installation and Migration Depot has become a popular focal point of the IT Central area, and this year it’s bigger and better than ever. To take advantage of this great hands-on resource, here’s what you can do:

Reserve time at the Installation and Migration Depot using the online BrainShare scheduler starting January 13th, 2010.
Walk in and explore the Installation and Migration Depot any time the IT Central area is open for business. Unreserved seats are available on a first come, first served basis.

Ready for a Challenge?
Novell Advanced Technical Training (ATT) provides some of the most challenging, in-depth and hands-on training you’ll find anywhere. In 2010, Novell is bringing an unprecedented number of Novell Advanced Technical Training courses to Salt Lake City and making them an invaluable part of the BrainShare experience. This includes more than 40 in-depth, hands-on courses (blocked into two-hour and half-day sessions) covering the complete range of Novell products. Every Novell Advanced Technical Training course at BrainShare is taught by full-time professional engineer-level trainers. Each ATT classroom provides a complete hands-on lab environment with all the hardware and software you’ll need to thoroughly explore Novell technology. And every Novell ATT session is packed with advanced troubleshooting, useful tips and tricks and plenty of other hard-hitting technical information.

Are You Ready to Get Technical at BrainShare 2010?
This year, BrainShare is serving up even more in-depth, hands-on technical training opportunities. To take full advantage, make sure you do the following:

Register for BrainShare 2010 now to reserve your spot and take advantage of the early-bird savings
Add Novell ATT courses to your online BrainShare scheduler wish list starting January 13th, 2010
Convert your wish list into your final BrainShare schedule starting February 22nd, 2010

Come on in, the Water’s Fine
If you’re looking to dive deep at BrainShare 2010, make sure you register early. Beginning on January 13th, 2010, you can use the online BrainShare scheduler to add specific Novell ATT courses to your schedule and reserve time at the Installation and Migration Depot. Starting February 22nd, make sure you complete the process by converting your wish list to your final BrainShare schedule. Novell ATT courses at BrainShare fill up quickly, so don’t wait to reserve your seat and confirm your schedule. After you complete these simple steps, you’ll be all set to dive deep and take advantage of some of the most detailed, in-depth technical content BrainShare 2010 has to offer.
Experience World-Class Technical Training at BrainShare

What can you expect from Novell ATT training courses at BrainShare? Here's a quick preview:

> Five fully-equipped labs running Novell ATT courses all week at BrainShare
> More than 40 ATT sessions covering the complete range of Novell products
> In-depth, 2-hour and half-day sessions on the technical topics you care about most
> Professional, full-time expert trainers with deep engineering backgrounds teaching proven, polished technical courses
> A complete, hands-on training experience packed with advanced troubleshooting strategies and useful tips and tricks
At some level, every major industry trend is simply a natural, inevitable response to pain—a new idea for relieving pressure and eliminating barriers that slow organizations down and cost them extra money. The current trend toward service-driven data centers and enterprise cloud computing is no exception. In practical terms, it’s nothing more or less than our industry’s latest attempt to fix a long list of problems and inefficiencies that have plagued traditional data centers for years.

We’re all familiar with the issues. Today, data center service delivery models are simply too slow, inefficient, inflexible and error prone to keep up with the current pace of business. In a traditional data center environment, it typically takes more than 90 days to purchase, deploy and provision the hardware and software needed for a new business service. Vendor lock-in issues often make it difficult or impossible to leverage best-of-breed tools. Slow, inefficient manual workflows tend to be unproductive and error prone, which often translates into unacceptable service delays and disruptions. And even though virtualization can dramatically reduce the cost and complexity of provisioning infrastructure, it can also hide the true costs of service delivery, which often leads to serious “infrastructure sprawl” problems.

Of course, these challenges are not limited to the realm of pure infrastructure management. Business services inevitably require the involvement of many different teams, from business service managers to application owners. These teams often bring different objectives and priorities to the table, and traditional data center environments often struggle to provide the flexibility and visibility needed to reconcile their interests and achieve their varied (and occasionally competing) goals.

> Exploring a Practical Approach to Cloud Computing

Businesses are turning to cloud computing in growing numbers, because it offers a new approach for solving these long-standing data center problems. As with any new trend, cloud computing also raises its own set of issues and questions, many of which revolve around the obvious security, protection and auditing implications associated with moving enterprise business services to public clouds. As a result, many organizations are asking whether it makes more sense to move their enterprise to the cloud—or bring cloud computing into their enterprise. A surprising number are discovering that the best, most practical answer may be “both.”

Making your own internal data center environment more “cloud like” allows you to immediately tap into many of the advantages of cloud computing, leverage existing infrastructure investments and avoid the current questions and risks associated with public clouds. This incremental approach also makes it easier to transition to a hybrid public/private cloud model in the future—after security, auditing and other public cloud issues have been addressed. In other words, many organizations view the creation of internal clouds and service-driven data centers as important stepping stones to a more full-blown private and public cloud computing model.

A Smart, Practical Path to Building an Internal Cloud

1. Build a Service-Driven Data Center that simplifies, accelerates and automates the deployment and management of business services
2. Create, publish and deploy standard infrastructure offerings
3. Add visibility and accountability to current and future capacity needs
4. Keep your infrastructure options open
5. Provide advanced business service management capabilities

> Finding Your Stepping Stones to Successful Cloud Computing

What does it mean to bring cloud computing into your data center? And exactly how do you go about creating and managing a data center infrastructure that provides all the advantages and benefits of internal cloud computing? Basics like virtualization and workload management are certainly important. But building an internal cloud is also about incorporating a “business services” layer of abstraction to your traditional data center infrastructure. In traditional data centers, computing power and storage capacity are combined into workloads, which are then used to run enterprise applications. Adding this new business services layer logically groups these server workloads based on the
business services they support. This shifts the management focus to full business services—and away from the individual underlying components. The exact nature of this new business services layer may vary depending on the unique requirements of your organization, but it needs to include a few core characteristics and capabilities. Here are a few of the non-negotiable functions every service-driven data center should be able to perform:

1. **Simplify and accelerate the deployment of business services**
   Effective service-driven data centers dramatically simplify the provisioning process and reduce the time and effort required to deliver new business services. This includes automating every step of the deployment process, so your infrastructure team spends less time on manual, repeatable processes. It also involves giving business service managers and application owners more opportunities to perform certain management tasks themselves. This important self-service component translates directly into higher service levels, more efficiency and fewer distractions for your infrastructure team.

2. **Create, publish and deploy standard infrastructure offerings**
   A service-driven data center also provides a new model for defining infrastructure offerings and making them available to business service managers. With the right management tools, you can build a flexible repository of standard infrastructure offerings, including things like standard server images, pools of storage capacity, standard network access and so on, and then publish those services and make them available for fast, efficient deployment. This allows business service managers and application owners to browse through a list of available infrastructure services, assemble and customize the components they need, see the associated costs and then quickly deploy new workloads.

3. **Add visibility and accountability to current and future capacity needs**
   Next, your service-driven infrastructure needs to include tools for managing costs and understanding current and future capacity demands on the internal cloud. All too often, virtualized environments tend to “de-couple” computing and storage capacity from underlying hardware and software costs. This often causes business service managers and application owners to treat cloud resources as a free, inexhaustible pool,
which leads directly to underutilization of resources and cost overruns. Attaching concrete costs to specific cloud resources eliminates this problem and encourages responsible usage and deployment practices.

Your service-driven environment should also help you accurately predict future demands on your internal cloud. This includes providing a “pipeline tool” that gives business service managers the ability to enter basic information about future capacity needs without actually deploying new workloads. By collecting all this current and future usage and capacity information in one place and analyzing it carefully, infrastructure managers can gain a deeper understanding of how cloud resources are being used and how demands will change over time.

4. Keep your infrastructure options open
Growing demand inevitably leads to the need for new servers, storage hardware, operating system, and other underlying physical infrastructure components. As you build your internal cloud, you should always look to avoid the dangers of vendor lock-in. This typically involves being aware of—and steering clear of—too much vertical integration and choosing a business service management solution that’s designed to support a heterogeneous cloud environment. This gives you the freedom to implement best of breed infrastructure components that make the most sense for your organization. It also simplifies the process of moving to a hybrid cloud computing model that leverages a diverse range of internal and external computing resources.

5. Provide advanced business service management capabilities
Finally, a successful internal cloud environment has to offer relevant insights, deep visibility and efficient management capabilities to everyone with a vested interest in specific business services, including business service managers, business service owners, application owners and infrastructure teams. This includes providing the ability to integrate and unify different silos of information; gather, normalize and correlate all the information about your internal cloud infrastructure; and map a wide range of physical, virtual and logical components onto a simple, meaningful service model dashboard. You should also be able to create custom dashboards for people with different roles, responsibilities and interests.

What About Cloud Security?

Even if you’re considering a mostly internal cloud deployment, you may still need to outsource some applications to an external cloud vendor. But in these software-as-a-service (SaaS) situations, how can you make sure your vendor is leveraging your existing systems and security policies—without exposing sensitive information like user identities and passwords in the public cloud?

Novell is tackling this difficult issue head on with a new Cloud Security Service that essentially “annexes” a segment of a public cloud. This unique solution holds enterprise identity information securely behind your firewall while still making it safely available to cloud applications, cloud identity providers and other cloud assets.

The next issue of Novell Connection will feature a detailed, full-length article on the capabilities and benefits of the Novell Cloud Security Service. In the meantime, you can visit www.novell.com/products/cloud-security-service/ for more information about this important new offering.

Learn More about Novell and Cloud Computing
Visit www.novell.com/cloud

> Creating Successful Internal Clouds with Novell Solutions
Novell is ready to help you create a service-driven data center environment that brings all these capabilities together to deliver the full promise and potential of cloud computing and sets the stage for more extensive hybrid internal/external cloud computing solutions in the future. This includes fast and proven SUSE Linux Enterprise Server offerings that are ideal for cloud computing environments, a complete range of PlateSpin virtualization and workload management products and a variety of advanced Novell Business Service Management solutions. Together, these technologies can transform your traditional data center into a more efficient, agile and automated service-driven environment—and provide all the stepping stones you need to reach your most ambitious cloud computing goals.
Novell Policy for Patch And Service Pack Access

Understanding the Changes Coming February 1, 2010

Novell has consistently been ahead of the curve in customer support, and we are constantly looking at new and better ways to help our customers make the most of our products. Novell maintenance is a key component of this effort. As part of our ongoing commitment to support customers as they leverage our solutions to reduce costs, manage complexity and mitigate risk we're emphasizing maintenance more than ever.

Novell maintenance combines the product updates, training and technical support that are key to having the best possible experience with Novell products and solutions. In fact, most of our buying programs require some level of maintenance coverage to ensure customers have the resources they need to be successful.

Historically, many customers have been able to keep their systems up to date without purchasing maintenance or subscription coverage. However, like many of our industry peers, Novell will soon be implementing authentication and entitlement authorization in order access these valuable maintenance resources.

Specifically, beginning February 1, 2010, we will require maintenance (or subscription) coverage and authentication in order to access patches and service packs for most Novell products.

In this article, we review the details of this policy and discuss its implications—ensuring that you can make an informed decision about purchasing maintenance on behalf of your organization.

Who is affected?
Beginning February 1, those who have been downloading patches and service pack updates without subscription or maintenance coverage will need to purchase a subscription or a maintenance contract to continue accessing these resources. Please note that maintenance benefits vary based on buying program. For more information, consult the buying program guides at http://www.novell.com/licensing/.

If you're a customer of the SUSE Linux Enterprise product line, you are already accustomed to the benefits of a subscription-based model. For these products, patch and service pack access will remain consistent with current policies.

Additionally, academic customers with ALA or SLA agreements will continue to have access to all patches and service packs for the products they own as a benefit of their buying program.

Are any products excluded from the policy?
Stand-alone security patches will always be provided without cost. Stand-alone security patches are those that are released without any additional product fixes or updates, but are vital for your security and the security of your data. Any patch that is bundled with other product fixes or updates—including those that are prerequisites to the security patch—will require maintenance or subscription authorization.

Additionally, the entitlement policy will not apply to NetWare or products that have moved beyond the general support phase of the Novell product lifecycle. (See Exclusions To This Policy.)

Furthermore, stand-alone security patches will always be provided without cost. Stand-alone security patches are those which are released without any additional product fixes or updates but are vital for your security and the security of your data.

The Advantages of Novell Maintenance
Novell will continue to offer several benefits to our customers free of charge, including access to the Novell Support Knowledgebase, product documentation, evaluation software, product collateral, and community-generated resources such as Cool Solutions, Novell Connection Magazine, and the Novell Support Forums for community-level support and information-sharing.

However, it's important to understand that the maintenance or subscription coverage that provides ongoing access to patches and service packs delivers value far beyond the scope of this policy. With maintenance, you tap into all the resources and advantages of an established global services organization with a long and proven track record evidenced by our high levels of customer satisfaction and recognition, numerous quality certifications and industry awards.
In addition to patch and service pack access, a maintenance investment delivers the following advantages:

- Immediate access to version upgrades, enabling you to take advantage of new features and functionality more quickly.
- World-class technical support and the fundamental training that increases end-user productivity, system performance and organizational success.
- Access to additional enterprise-level support and training services (such as service account management and dedicated support engineers) that decrease time to value and increase return on every Novell investment.

What's Still Available Without Maintenance?

- Stand-alone security patches
- Access to the Novell Support Knowledgebase
- Product documentation
- Product evaluation versions
- Product collateral (e.g., technical white papers and upgrade guides) on novell.com
- Access to Cool Solutions for community-generated resources
- Access to Novell Connection Magazine
- Access to the Novell Support Forums for community-level support and information-sharing

What More Do You Get With Maintenance?

- All the resources to the left, plus...
- World-class technical support
- Product version upgrades
- First Look On-demand training
- Access to enterprise-level services such as service account management and dedicated support engineers
- Access to product service packs and patches

Exclusions To This Policy

1. Stand-alone security patches (those issued without any additional patches or new functionality) will continue to be available to all customers, regardless of maintenance or subscription status.
2. SUSE Linux Enterprise products will not be impacted by this policy; patches and service packs for these products will continue to be distributed as they are today.
3. Patches for NetWare and any product that moves beyond the general support phase of the Novell product lifecycle [hotlink “product lifecycle” to http://support.novell.com/lifecycle/] will be available to all customers, regardless of maintenance or subscription status.
4. As a benefit of their buying program, academic customers with ALA or SLA agreements will continue to have access to all patches and service packs for the products they own.

Making the Most of Your Novell Investment

Knowing you have these resources, you can adopt and manage your solutions with confidence; keep your systems available, reliable and optimized; and improve productivity across all levels of your organization. Most importantly, you can focus on driving your business, knowing that Novell is there to keep your systems running smoothly. To learn more about this policy—and to access materials on the value of Novell maintenance—visit http://support.novell.com/policy/maintenance.html.