

# Streamline Your Windows\* 7 Migration with Novell® ZENworks® 11

# Windows\* 7: The Fastest, Most Widespread OS Migration in a Decade

## Keys to a Successful Windows 7 Migration:

- Careful planning
- A well-informed strategy
- The right migration and ongoing maintenance tools

1 Source: IDC Technology Spotlight sponsored by Novell, "Migrating to Windows 7? Technology Points to Consider." September, 2010  
2 Source: Gartner, "The Big Migration: Windows 7 and Office 2010." October 17, 2010

The move to Windows 7 has already become the most significant desktop operating system migration since Windows XP was released more than nine years ago. In fact, of the 390 IT professionals who participated in a recent IDC survey, 48 percent said that their organizations had already started using Windows 7, 39 percent have launched a formal migration program, and 89 percent have definite plans to move to Windows 7 within 24 months.<sup>1</sup>

Many factors are driving this rapid and widespread adoption. Most enterprises chose not to adopt Windows Vista on a large scale for a variety of well-publicized reasons, which means they still depend heavily on an aging operating system that has been around for nearly a decade. Windows 7 also offers many important features that make it more attractive than Windows Vista for both end users and IT professionals. And of course, Windows XP's impending end of life provides the ultimate incentive to move to Windows 7 sooner rather than later. In fact, a recent Gartner report predicts that organizations that delay their Windows 7 migration plans may have trouble completing deployment before Windows XP support ends.<sup>2</sup>

For these reasons and many others, the move to Windows 7 is occurring more quickly and on a larger scale than any OS migration in recent memory. This creates obvious challenges for IT organizations—from hardware readiness, application compatibility, and ongoing management issues to end user training and productivity concerns.

Like any major OS migration, moving successfully to Windows 7 requires careful planning, a well-informed migration strategy and the right set of migration tools. Fortunately, the

Novell® ZENworks® 11 family of products and Novell Service Desk provide a remarkably versatile and complete set of migration, management and service management tools for Windows 7. Together with a smart, well-planned migration strategy, these tools are ready to help you make the move to Windows 7 quickly and efficiently.

## Windows 7 Migration Considerations

At the most basic level, a smooth, successful migration to Windows 7 starts with the right answers to a few essential questions:

- *How do you accurately determine what hardware should be migrated, upgraded or replaced?*
- *How can you make sure users have continuous, reliable access to the applications they depend on—before, during and after a major Windows 7 migration?*
- *What's the fastest, most efficient and least disruptive way to actually deploy Windows 7 to thousands of machines?*
- *After the migration is complete, how can you make sure all your Windows 7 machines stay secure, patched and compliant from the moment they're up and running?*
- *How will you maintain your Windows 7 environment and lower service and support costs before, during and after a major Windows 7 migration?*

## Five Best-practice Steps for a Successful Windows 7 Migration

Novell ZENworks 11 can help you answer all of these key questions. By following five key steps—and leveraging core Novell

ZENworks 11 capabilities throughout the Windows 7 migration process—you can prepare for, move to, and maintain a successful, productive Windows 7 environment with minimal disruptions to your organization.

### **Step 1: Gain a Complete, Accurate Inventory of Your Entire Environment**

There's simply no way to perform a successful Windows 7 migration without conducting a complete, accurate and up-to-date inventory first. This includes gathering detailed information about the hardware configuration of every PC in your organization, gaining a complete picture of the software running on each of those PCs and then using that information to make smart, informed migration decisions.

Without the right tools, this can be a painful, time-consuming and labor-intensive undertaking. Novell ZENworks Asset Management, which is a fully integrated part of the ZENworks 11 family, provides industry-leading discovery and software inventory capabilities that greatly simplify and automate this complex process.

Rather than simply scanning hard drives and displaying lists of raw executable files, Novell ZENworks 11 carefully analyzes all the software on your hard drives and checks the results against an extensive, frequently updated knowledgebase of more than 80,000 applications. This approach eliminates missing or misspelled header information common to other inventory approaches and distinguishes between real applications and other types of executable files.

ZENworks 11 provides the flexibility of both agent-based and agentless discovery options, but the agent-based approach makes it possible to collect more detailed and complete information.

### **Rationalizing Content and Applications**

With complete and accurate inventory information, you can begin the process of making decisions about your upcoming migration. Most organizations have plenty of obsolete content, outdated applications and even unnecessary hardware components sitting on desktop systems and user networks. Migrating these unnecessary components over to Windows 7 is an obvious waste of time, money and resources, so it's important to trim the fat before you begin your move. And of course, you need a reliable way to determine which systems and applications are compatible with Windows 7.

ZENworks 11 can help you with this complex rationalization process. Versatile ZENworks readiness reports can quickly show you which hardware in your organization is capable of running Windows 7 and identify any potential software compatibility issues. Finally, with its purchase history and license management capabilities, Novell ZENworks can help you identify machines that might be due for a hardware refresh—and provide insights into whether you should virtualize applications or rely on traditional installations. Together, these reporting capabilities give you all the information you need to understand exactly how a Windows 7 migration will affect your environment and what changes and adjustments need to be made.

The same advanced discovery, inventory, reporting and license management capabilities described earlier can also help you quickly identify and eliminate outdated or unused hardware and software assets, so you only migrate the tools and resources users need and use.

After you complete this step, you will know which applications you can remove from the network, which applications are good candidates for virtualization, and which applications should be installed traditionally.

### **Migrate, Maintain and Support with Novell ZENworks 11**

ZENworks 11, working with other Novell products like Novell Service Desk, gives you everything you need to migrate to, maintain and support an efficient, productive Windows 7 environment:

- Inventory
- Packaging, imaging and deployment
- Personality migration
- Application virtualization
- Configuration management
- Endpoint security management
- Patch management
- Service management

For more information about Novell ZENworks 11, visit: [www.novell.com/products/zenworks/configurationmanagement](http://www.novell.com/products/zenworks/configurationmanagement)

IDC predicts that more than 170 million units of Windows 7 will ship by the end of 2010<sup>3</sup>.

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<sup>3</sup> Source: IDC White Paper sponsored by Microsoft. "The Economic Impact of Microsoft's Windows 7 Worldwide." Doc # W7WW709, July, 2009

**Step 2: Ensure application continuity before, during and after the migration**

Every major OS upgrade presents obvious and unavoidable application compatibility challenges. Long before the migration takes place, you have to make sure all of the applications users depend on will run properly on the new OS. This requires detailed planning, careful testing and smart strategies for running older applications successfully in a new environment.

Fortunately, Windows 7 and Novell ZENworks products offer capabilities that make it significantly easier to address these application compatibility issues. First, Windows 7 gives you the option of running older applications in XP mode. This basically requires you to build a Windows XP virtual machine (VM), deploy it to your Windows 7 desktops and install applications that are incompatible with Windows 7 on the XP VM. Of course, this means you'll have to maintain two operating systems on each desktop system and manage applications in both OS environments, which can add significant IT overhead.

Novell ZENworks Application Virtualization, which is tightly integrated with ZENworks 11, makes it even easier to eliminate application compatibility issues—without creating additional administrative burdens. With Novell ZENworks Application Virtualization, you can create portable Windows virtual applications that run as independent executable files. This reduces the time and expense required to test and redeploy applications into your new Windows 7 environment. It also simplifies the process of testing older in-house legacy applications on newer operating systems. In many cases, you may even be able to manually configure virtualized versions of your

older legacy applications to perform better on Windows 7. And of course, ZENworks Application Virtualization provides all of the other well-publicized benefits of virtualized applications: the ability to instantly run applications from USB thumb drives and other removable media, 100-percent user mode implementation options, pre-set application expiration, predictive streaming, and much more. Together, these capabilities give you the freedom and flexibility you need to run and manage applications in a Windows 7 environment without affecting the end user experience, which makes application virtualization one of your most powerful and versatile tools for addressing compatibility issues and ensuring application continuity as you move to Windows 7.

**Step 3: Configure and deploy Windows 7**

With a complete, up-to-date inventory of all your applications, an informed plan for deploying them, and a reliable way to maintain application continuity, you're ready to begin the process of actually migrating hardware, applications and settings to Windows 7.

**Choosing the Right OS Migration Approach**

In an ideal world, there would be a fast, easy upgrade option for moving from any recent version of Windows to Windows 7. However, the reality is that potential upgrade paths to Windows 7 are almost non-existent. In fact, there are absolutely no in-place upgrade options available for any legacy versions of Windows—other than Windows Vista with service pack 1 or service pack 2 installed. Even in cases where you're upgrading directly from Vista, there are additional upgrade limitations that can cause problems in many situations. For example:

- You can't upgrade from one core language to another core language
- You can't upgrade from a 32-bit version to a 64-bit version

These limitations are enough to rule out in-place upgrades as an option for most organizations, which leaves clean installs as the only viable choice. Clean installs also have the added advantage of creating a pristine OS environment without all the extra baggage in-place software upgrades can leave behind.

### Grouping and Preparing Applications for Deployment

Migrating the overwhelming number and variety of user data, desktop and application settings—along with all the other details that make up a typical user’s desktop “personality”—can be one of the most difficult and painful aspects of a major OS migration, especially when you’re performing clean installs on hundreds or thousands of machines.

This is one area where advanced migration tools become particularly important. For example, Novell ZENworks 11 includes wide-ranging personality migration capabilities that can dramatically simplify and automate the process of preserving and migrating user data and settings to a new Windows 7 environment. Without these kinds of advanced personality migration tools, you run the risk of eating up countless IT resources and creating major disruptions as users struggle to restore their desktop environments.

This involves grouping applications that will be deployed the same way together. For example, you may choose to convert and run some applications natively on Windows 7, virtualize others and even run some in XP mode.

After this process is complete, Novell ZENworks 11 makes it easy to create packages for these different categories of applications—including virtualized applications—and prepare them for distribution. For example, ZENworks includes Flexera AdminStudio ZENworks Edition, which simplifies the preparation, customization and management of reliable Windows Installer (MSI) software packages. ZENworks also

offers support for Ghost and Windows imaging (WIM), so you can leverage your Ghost investment or the native Windows imaging tools and still use ZENworks 11 to manage the deployment process.

### Testing and Targeting Software Images

Regardless of which imaging methods and strategies you choose, thoroughly and meticulously testing all your images before you deploy them is an absolute must. After the testing process is complete, ZENworks 11 can help make sure they get deployed properly and completely on all of the correct targets.

With ZENworks 11, you can take advantage of predefined dynamic device groups that automatically include workstations or servers running the same operating system version. You can also create your own dynamic groups based on any inventory value. During the deployment process, ZENworks dynamically installs all of the correct hardware drivers and applications for specific targeted devices. And because ZENworks 11 supports both Active Directory and Novell eDirectory™ users, you can create ZENworks groups that include users from multiple directories, further simplifying the management of applications for those users.

ZENworks also offers blackout schedules, wake-on-LAN technology and device wakeup capabilities that allow you to back up desktop data and migrate users to Windows 7 overnight. Together, these advanced software distribution capabilities can dramatically cut the time, resources and effort required to move to Windows 7.

### **Step 4: Keep your Windows 7 environment patched and compliant**

The migration process is only the first step in what will be a committed, long-term relationship with Windows 7. From the moment the new operating system is up and running, you need to find a reliable, efficient way to keep the entire environment patched and compliant.



**“Windows 7 will become the new standard for most commercial PCs within 12 months.”**

#### **Forrester**

*Windows 7 Commercial Adoption Outlook*  
October 15, 2009

## Five Key Steps for a Successful Windows 7 Migration

ZENworks 11, working with other Novell products like Novell Service Desk, gives you everything you need to migrate to, maintain and support an efficient, productive Windows 7 environment:

1. Gain a complete, accurate inventory of your entire environment
2. Ensure application continuity before, during and after the migration
3. Configure and deploy Windows 7
4. Keep your Windows 7 environment patched and compliant
5. Lower your ongoing management and service costs

Novell ZENworks 11 proactively addresses this need by providing you with all the tools you need to automate the collection, analysis and policy-based delivery of patches to your Windows 7 endpoints. This includes a unique combination of integrated patch monitoring, assessment, deployment and reporting capabilities that make it possible to patch systems up to 13 times faster than the industry average.

With ZENworks 11, you can dramatically lower patch management costs and labor by enabling accurate, automated patching processes. You can also boost compliance by monitoring your whole Windows 7 environment, quickly identifying and assessing vulnerabilities, and automatically applying updates and patches needed to bring Windows 7 devices up to pre-defined policies and standards.

### **Step 5: Lower your ongoing management and service costs**

ZENworks 11 will keep your migration costs low. But perhaps the most compelling reason to choose Novell ZENworks 11 as your primary migration tool is its ability to reduce your ongoing maintenance and service management costs for as long as you own Windows 7. This includes powerful policy-based configuration management and (with the addition of Novell Service Desk) tightly integrated service management capabilities.

Adding Novell Service Desk to ZENworks 11 makes it possible to reduce your mean time to repair (MTTR) and improve your overall service-management environment by streamlining and automating a complete range of service-desk functions. By applying industry-acknowledged best practices, Novell Service Desk's fully integrated service management tool allows you to solve, submit, track and

manage requests via e-mail, PDA or a convenient customer portal.

With Novell Service Desk and ZENworks 11, you can quickly deploy a scalable and flexible service management environment that embraces key ITIL best practices; automates incident, problem and change management processes using a centralized Configuration Management Database (CMDB); and empowers users to solve their own problems with advanced self help capabilities.

Working together, ZENworks 11 and Novell Service Desk give you all the tools you need to keep ongoing maintenance and service costs low and fulfill the most demanding Service Level Agreements before, during and after your migration to Windows 7.

### **Bringing All the Pieces Together**

ZENworks 11 provides all of the policy-based migration, application virtualization, configuration management and service management capabilities you need to move successfully to Windows 7 and keep ongoing maintenance costs low. But it also integrates all of these capabilities into a single unified web-based console (see *Figure 1*). That means you can use the same ZENworks 11 solution to streamline and automate your initial Windows 7 deployment **and** efficiently support and maintain your Windows 7 environment. And of course, ZENworks 11 brings all those same advantages to the rest of your mixed IT environment—with full support for Windows and Linux desktops. It also runs on a variety of Windows and Linux operating systems, supports your choice of directory services (Active Directory or Novell eDirectory) and uses your choice of databases (Oracle, Microsoft SQL or Sybase).

# Unified ZENworks 11 Console

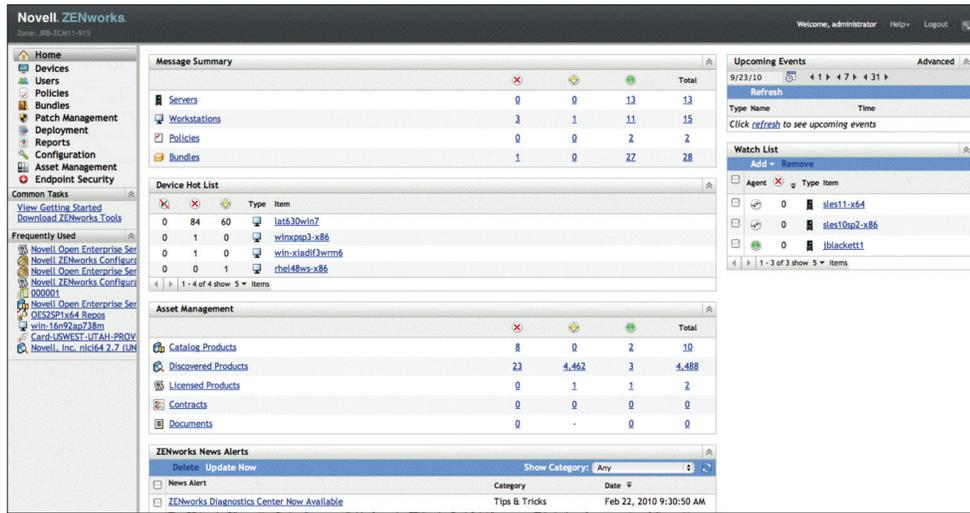


Figure 1. Novell ZENworks 11 integrates configuration management, patch management, endpoint security management, power management and more into the same unified web-based console.



“Gartner expects mainstream adoption of Windows 7 to begin in 2H10 and 1H11. Organizations that begin too late may have trouble completing Windows 7 deployment before Windows XP support ends.”

**Gartner**  
*The Big Migration: Windows 7 and Office 2010*  
October 17, 2010

## Conclusion

Major desktop operating system migrations are never easy. But with a smart strategy, a best practices approach and the right migration, maintenance, security and service management tools, you can take advantage of everything Windows 7 has to offer with minimal disruptions to your business. Novell ZENworks 11 is ready to support and enhance your migration efforts with full support for

Windows 7 and a comprehensive range of advanced discovery, inventory, packaging, deployment and desktop management capabilities. With ZENworks, you can make the transition to Windows 7 as smooth and efficient as possible—and create a robust, policy-based foundation for managing your whole desktop environment before, during and after your Windows 7 migration.

Novell ZENworks 11 is ready to support and enhance your migration efforts with full support for Windows 7 and a comprehensive range of advanced discovery, inventory, packaging, deployment and ongoing maintenance tools.

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