Industry-leading migration expertise to ensure sustained business value

Simplify Your Windows® Server Migration

Who should read this paper

Windows Server 2003 customers looking to migrate to the latest version of Windows Server.

✓ Symantec.™

Content

Introduction

On July 14, 2015 Microsoft ends its support for Windows Server 2003 and all associated versions, meaning the end of updates, security patches, and fixes for your organization's servers if you have yet to migrate. To maintain a secure and stable infrastructure, you can no longer delay the move to the latest version of Windows Server.

Even though a Windows Server migration provides a great opportunity to enhance your infrastructure, it can still be an intimidating task. With any migration of this nature, the challenge is to execute it in an efficient, cost-effective, and sustainable manner, while protecting your business continuity. Symantec can help you meet that challenge with migration and deployment solutions that streamline processes to cut the expense, delay, and disruption to business operations—and keep you in control.

Migration Expertise

In the past, migrations involved manually collecting inventory and configuration data, throwing together solutions from disparate tools, writing and testing scripts to handle endless contingencies and dependencies, which exhausted time, energy, money, motivation, and executive patience. Symantec takes a different approach, combining world-class technologies into solutions that handle the busywork to simplify your Windows migration so you can keep your focus on the issues that matter most.

Symantec has deployed more than 300 million systems to Windows operating systems. In addition, Symantec engineers have built a decade of experience into every Symantec solution, with an integrated approach that leverages fully-automated and forward looking technologies that turn your migration challenges into new opportunities and benefits.

Integration

Symantec solutions don't just push an OS image. They take an integrated approach to migration that minimizes manual processes, user intervention and unnecessary help desk support calls. This integrated approach starts by inventorying your hardware and software, and assessing your server configurations. It facilitates the creation and deployment of standard OS builds with packaged applications tailored to the role requirements of your different server types. As needed, it also simplifies the reconfiguration of any of your migrated servers. Symantec solutions drive the management of this entire integrated approach all from within a single console and a single architecture.

Automation

Step-by-step manual migration processes waste valuable time and personnel resources. That's why Symantec has designed its migration tools to automate complex processes and tie those processes together in a cohesive fashion that saves you time and effort. Whether it's for physical or virtual servers, these integrated and automated tools enable you to create standard OS builds that streamline your migration activities and give you consistent repeatable processes that not only can be used throughout your migration, but can be easily leveraged and replicated to facilitate future server deployments.

Identifying Opportunities

A Windows migration is a perfect time to identify opportunity targets. Look for ways to improve and automate processes, as well as improve standardization, management automation, compliance, and security. Some opportunity targets to consider include the following:

• Enhancing cloud accessibility, resources and innovation
• Exploring potential server consolidation and virtualization
• Resolving security vulnerabilities

- Defining and implementing computer naming standards
- Standardizing server software versions
- Adding capabilities for asset management
- Implementing information management technologies to back up data

The Symantec Approach to Windows Migration

Symantec integrates automated, up-to-date migration and deployment solutions backed by years of experience with millions of deployments. Symantec offers a comprehensive range of server management and deployment solutions to help you lock in your success.

Based on years of experience with other OS migrations, along with the capabilities and opportunities presented by the latest Windows Server offerings, Symantec has developed a 4-phase process to simplify and ensure your migration success:

- Assess
- Prepare
- Migrate
- Manage

Phase 1 - Assess

To enable you to effectively plan your server migration and prepare the necessary migration resources, you will first need to obtain reliable, current information about your server environment. This includes discovering and evaluating patterns of hardware, software, and application use. It requires identifying and planning for network and management issues that need to be addressed, as well as determining your hardware, software, and licensing readiness.

The gathering and assessment of this type of information can help you overcome common obstacles to a smooth migration. It enables you to minimize any identified coverage gaps and better address business issues and cycles in your plan. It gives you the ability to avoid misunderstandings about timing, costs, and availability that can compromise even a technically perfect migration.

The following represent key aspects of the assessment phase of any Windows Server migration:

- Discover devices across your network (managed and unmanaged)
- Run hardware and software inventory scans to identify all the software and workloads running on your servers and their utilization
- Create and analyze hardware readiness reports to assess requirements
- Plan how you will use multicasting, local file shares, and package servers to help minimize LAN and WAN impacts
- Assess software readiness, and prioritize application testing and migration
- Calculate and report the time, costs, hardware, and personnel for your plan
- Identify dependencies—both technical and organizational—embedded in the plan
- Negotiate clear, measurable Service Level Agreements (SLAs) with key stakeholders
- Create change management and communication plans
- Identify and communicate potential issues and risks

Phase 2 - Prepare

During the preparation phase of your Windows migration you need to create standard OS builds, identify application compatibility issues, build application and workload packages, build automated migration tasks, test those migration tasks, and perform backups of your servers.

Build Standard OS Builds

The fastest, most consistent way to migrate your virtual and physical servers to a new operating system is through the creation and usage of OS scripted installs, also known as standard OS builds. The scripts in these standard OS builds automate the packaging, deployment and configuration of the specific applications and workloads needed for your various server types. This standardized build methodology gives you a simplified repeatable method to create different sets of servers with specific roles.

For example, you might have one generic OS build for your web servers, one for your database servers, and one for your mail servers. The first several scripted steps for all of these different OS builds might be identical with just the last few steps deviating based on the different server roles as they address the installation and configuration needs of their particular applications and workloads.

Prepare Applications

Applications are at the core of your server workloads and user productivity. You need to identify upfront which of your existing applications are currently supported on your new version of Windows Server and which ones are not supported. This requires that you test all your applications together in your new Windows Server environment. Any unsupported applications, including legacy and custom applications, either need to be remediated or replaced. Issues involving unsupported applications can be addressed in a variety of ways, including policies, repackaging, replacement by new technology, or—as a last resort—through debugging and code changes.

Regardless of what repackaging solution you use, be sure to document your corporate repackaging standards. This should include user interactions during the installation, destination directories, and common templates. Also to ensure consistent migration and deployment, be sure to build and use process templates.

As part of your application preparation, you will need to establish the order in which you will migrate your applications. You will need to identify any applications that were not built into your standard OS build. Additionally, your Windows Server migration provides an ideal time to ensure your security software is consistent and up-to-date across your entire organization with the latest Symantec protection products.

Build Automated Migration Tasks

Once you have the individual elements of your migration in place, you need to tie them together by encapsulating templates and files into an automated job or workflow sequence such that completion of one task will automatically trigger the next. At a high level, these tasks will include deploying your scripted image build, installing your packaged applications and configuring your hardware and software settings. You can leverage pre-defined sample scripted builds and wizards to accelerate these processes and reduce errors.

Back Up Servers

As you would with any major change to your server infrastructure, be sure to back up your servers before the migration occurs and ensure that those backups are easily recoverable if needed after the migration. Even the most well-planned and properly executed migration can encounter unforeseen problems. To guarantee business continuity and productivity, you need to take the necessary steps to prevent data loss of any application or user data stored on the server and ensure you have the means to restore those data files to another location if necessary.

Phase 3 - Migrate

A successful server migration requires knowing what to expect ahead of time. This is where a pilot migration can be a lifesaver. A pilot migration lets you simulate each step of the process for thorough testing and evaluation to ensure a smooth transition. Select specific pilot participants that will produce the best cross-section of real-world results. At a high level, this will include at least two separate sets of participants – a set of IT personnel for testing and verifying that the migrated services, applications and workloads on the servers are behaving properly, and a set of end users in various roles to verify that they can still perform their normal everyday tasks as they access and use the services provided by the servers.

For your pilot you will want to put in place any new servers purchased for the migration. You will also need to make any necessary network adjustments, such as enabling multicasting. For subnets or small locations, you can assign desktop computers to act as multicast masters.

Organizations with large server installations should consider executing phased pilot migrations, which introduces more pilot servers after each successful phase of the pilot. Regardless of whether you implement a single pilot or multiphase pilot, document the successes, failures and issues encountered during the pilot. This will facilitate your ability to better analyze the operation of the overall migration process and allow you to make any necessary adjustments.

Once you have successfully completed the pilot program, you are now ready to start the main migration project. Make sure you have defined whether you are going to execute the migration in phases, in large batches, or gradually as part of hardware attrition. During and after your migration, you need to measure, report, and analyze the success of your efforts. Good reporting allows your executive team to track your migration from a distance, and helps you capture what you've learned for next time. Your migration analysis and reports should include the following:

- Systems successfully migrated
- Problems encountered
- Step-by-step migration status
- Missing patches
- License verification data
- Real-time monitoring of your servers' resource utilization and application services

Phase 4 - Manage

Once you have migrated to the latest version of Windows Server, you need to be able to maintain and manage your new environment in an efficient and cost-effective manner that will sustain your IT environment for years to come. The migration itself presents an excellent opportunity to upgrade to higher levels of manageability with server management solutions that contribute to your migration in a way that justifies their cost as well as delivers long-term IT administration benefits.

The following Symantec solutions not only automate and simplify your migration efforts, but they can help you secure and manage your IT resources long after your migration is complete:

- **Symantec™ Server Management Suite** powered by Altiris™ technology provides you with a comprehensive solution for managing physical and virtual servers across a broad array of platforms, including Windows®, Linux®, UNIX, and virtual platforms. The suite provides solutions to provision, patch, control, automate, and monitor servers from a central console. The combination of complete lifecycle functionality built on an integrated infrastructure enables you to gain and maintain control of your servers.

- **Symantec Deployment Solution** powered by Altiris technology helps reduce the cost of deploying and managing servers, desktops, and laptops from a centralized location in your environment. It helps reduce end-user downtime and increase IT efficiency through automated, repeatable deployment processes.

- **Security solutions** from Symantec help you keep up with the dramatic evolution of today's global threat environment—protecting you against targeted attacks, stealth attacks, multi-vector attacks, morphing attacks, and new breeds of innovative threats from the organized ranks of professional cybercriminals. Your migration is an ideal time to replace patchwork legacy security measures with comprehensive solutions that simplify management with clear, enforceable policies.
  - Symantec™ Protection Suite
  - Symantec™ Data Center Security: Server Advanced
  - Symantec™ Encryption Solutions: Endpoint, Mail, and File & Folder
  - Symantec™ Endpoint Protection

- **Backup and Recovery solutions** from Symantec help you protect your critical data, help migrate your systems from physical to virtual, and integrate cloud offerings to improve protection and recovery flexibility. As your environment changes with this migration, it is critical to evaluate and take advantage of opportunities to improve overall IT efficiency and storage requirements.
  - Symantec™ Backup Exec
  - Symantec™ NetBackup
  - Symantec™ System Recovery

Why Symantec?

Symantec migration and deployment solutions integrate and streamline migration processes to reduce the expense, delay, and business disruptions from your migration—and keep you in control. Leveraging integration, automation, manageability, and migration expertise during your migration saves you time, money, and end-user patience. When you apply those savings to advanced Symantec solutions for security, virtual environments, data protection, and management, you secure not just the one-time rewards of a smooth migration, but long-term reliability, productivity, and security from an up-to-date, efficient, manageable IT environment.

The process outlined in this brief provides a framework for a successful Windows server migration using powerful automated solutions available from Symantec. Here are some additional sources of detailed information:

- From best practices to white papers, events, and downloads, and more, Symantec has everything you need to successfully plan and execute a Windows Server migration. Visit go.symantec.com/2003migration for more information.

- Symantec Connect is an online community where you can collaborate, learn and share ideas about Symantec solutions at http://www.symantec.com/connect.

About Symantec

Symantec protects the world's information, and is a global leader in security, backup, and availability solutions. Our innovative products and services protect people and information in any environment – from the smallest mobile device, to the enterprise data center, to cloud-based systems. Our world-renowned expertise in protecting data, identities, and interactions gives our customers confidence in a connected world. More information is available at www.symantec.com or by connecting with Symantec at go.symantec.com/socialmedia.

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