# Top 11 Reasons to Upgrade to Windows Server 2008

Microsoft® Windows Server® 2008, with built-in Web and virtualization technologies, enables businesses to increase the reliability and flexibility of their server infrastructure. New virtualization tools, Web resources, and security enhancements help save time, reduce costs, and provide a platform for a dynamic and optimized datacenter. Powerful new tools like Internet Information Services (IIS) 7 and Server Manager provide more control over servers and streamline Web, configuration, and management tasks. Advanced security and reliability enhancements, such as Network Access Protection and the Read-Only Domain Controller, harden the operating system and help protect the server environment to ensure a solid foundation on which to build businesses.

# #1 Server Consolidation and Resource Optimization — Hyper-V

Most servers operate at far below their capacities, with as much as 80-90% of their processing power unused, on average. With Hyper-V, the Windows Server 2008 virtualization solution, a single physical server can host the workloads of multiple Line of Business servers. Hyper-V helps organizations to achieve optimal use of their hardware resources and provides the agility needed to adapt to changing IT needs. New management tools simplify the deployment process, and allow IT departments to manage virtual servers with the same familiar tools that they use to manage the physical servers in the network.

# #2 Flexible Application Access for Remote Users - TS RemoteApp

Windows Server 2008 provides improvements and innovations to Terminal Services, with solutions like Terminal Services RemoteApp that allow users to access individual applications, instead of a the computer desktop in a Terminal Server session. These applications run on the host computer and send only the application windows to the user, requiring fewer resources on the client side and reducing administration and deployment costs.

# #3 Modular, Minimal Installation -- Server Core

Many network servers perform specific dedicated and mission-critical roles within the network. The new Server Core installation option provides a minimal environment for running specific server roles. This helps improve reliability and efficiency, giving the IT department the ability to better utilize existing hardware. It also simplifies ongoing administration and patch management requirements by reducing the need to update unneeded files and functionality.

For network servers that perform specific network infrastructure roles, the new Server Core installation option offers a highly reliable and efficient platform. Because Server Core loads the fewest operating system components required to run core infrastructure roles, patch requirements are reduced. This provides higher reliability and security for core network infrastructure roles.

# #4 Delivering Rich Web Content and Applications -- IIS 7.0

As Web content gets richer and the Web becomes a viable platform for delivering business applications, the Web server is moving to the center of many networks. IIS7 delivers solutions for today's demanding content, including streaming media and Web applications in Active Server Pages and PHP. With an updated interface that makes administration easier, the new modular design of IIS7 enables administrators to minimize the attack surface of the Web server by installing only the needed components.

# #5 Improved Network Performance and Control -- New TCP/IP Stack

The efficient use of bandwidth has a direct impact on the productivity of users working in remote locations that rely on WAN connections to the organization’s central servers. The redesigned “next generation” TCP/IP included in Windows Server 2008 provides vastly improved performance in a remote location scenario, offering faster throughput and more efficient routing of network traffic. Using the combination of Windows Server 2008 and Windows Vista® in a branch office scenario can provide as much as a threefold improvement in throughput over the WAN connection.

# #6 Preventing Unhealthy Devices from Connecting to the Network -- NAP

With the increasing number of mobile users and corporate partners that must connect to an organization’s network, protecting the security of that network from outside threats is an ongoing challenge. Network Access Protection (NAP) in Windows Server 2008 helps prevent non-compliant computers from accessing an organization’s network. NAP can verify the health of connecting computers and enforce compliance with an organization’s security standards.

# #7 Supporting Business Continuity for Demanding Workloads -- High Availability Features

Windows Server 2008 provides increased scalability for the most demanding business solutions, and helps keep businesses operating through unplanned downtime with high availability features. With support for failover clusters, Network Load Balancing, dynamic hardware partitioning, robust storage options, and advanced machine-check architecture, Windows Server 2008 helps safeguard against single-point-of-failure problems. Simplified deployment and management helps organizations of all sizes take advantage of these features to improve availability and reliability.

# #8 Enabling Secure Collaboration -- Active Directory Federated Rights Management

Companies need to share information with partners and clients without losing control over that information. Rights Management Services enables organizations to control how documents are used—including who can view them, whether they can be printed, even whether they can be forwarded or deleted—both internally and externally.

# #9 Connecting Heterogeneous Environments

Windows Server 2008 includes Subsystem for UNIX-based Applications (SUA), a multi-user UNIX environment that supports more than 300 UNIX commands, utilities, and shell scripts. Users can maintain one user name and password for Windows domains and UNIX systems, synchronizing the credentials automatically when one changes. SUA runs on Windows-based servers without any emulation, providing for native UNIX performance and enabling UNIX applications to leverage Windows APIs and components.

# #10 Enabling Top-Shelf Service and Support for Remote Sites

Remote sites, such as branch offices, can be an IT challenge. Often, there is no local IT staff, making the deployment of software and security updates expensive and time-consuming. It can be difficult to enforce security and IP standards in a remote site. Windows Server 2008 enables remote management that's almost as good as being physically located onsite, allowing administrators to correct many problems using remote management. The new Read-Only Domain Controller provides a safer way to provide Active Domain administration in the remote infrastructure.

# #11 Easing Administration, Management and Automation—Server Manager and PowerShell

The Server Manager Console provides a single, unified console for managing a server’s configuration and system information, displaying server status, identifying problems with server role configuration, and managing all roles installed on the server. Built on the Service Modeling Language (SML) platform, Server Manager allows administrators to complete tasks with fewer clicks without having to navigate between multiple tools and interfaces. Server Manager also interfaces directly with PowerShell, the command-line shell and scripting language for automation. All Server Manager functions that can be used in the interface are available to PowerShell scripts. The interface even helps write those scripts, showing administrators exactly what commands are behind each button and control, and allowing administrators to record actions in the UI and save a script based off of those actions.