Features of windows server 2008 report examples

Business, Management



Abstract

This paper provides information about what Windows Server 2008 is and to which organizations it is best suited for. It then describes the main features of Windows Server 2008 R2 in terms of its virtualization, management, scalability, web, and networking and access capabilities, as well as how it integrates better with Windows 7. The various features in each of these capabilities are briefly described, as well as some of the improvements made.

Introduction

Microsoft Server 2008 consists of web tools, security and server management improvements, and built-in virtualization technologies that enable the efficient management of IT operations, the improvement of systems that are critical to businesses, and the decrease of costs (Hewlett-Packard Development Company, L. P., 2012). It is best suited for businesses that need servers that can be used for standard or departmental workloads such as web servers, terminal services, network services, directory services, shared printers/files, and general applications. It is also ideal for companies that need a dedicated web server to host external web content and for companies that need mission-critical solutions and the highest levels of reliability, scalability, and virtualization.

Key Features of Windows Server 2008

The main features of Windows Server 2008 R2 include virtualization, management, scalability, web, networking and access features, as well as a better integration with Windows 7 (Russel & Zacker, n. d.).

Virtualization

Hyper-V hypervisor, which provides server virtualization support, includes enhanced redundancy and scalability; new dynamic disk allocation capabilities, and client desktop virtualization (Russel & Zacker, n. d.).

Moreover, this virtualization feature supports not only machine virtualization but also enables client desktop virtualization, application virtualization, and presentation virtualization. In addition, improvements in presentation virtualization enable a more seamless integration between Windows Server 2008 R2 and Windows 7 clients. It also includes full support for multiple monitors and Windows Aero. As well, Windows Server 2008 R2 enables a low-cost and low-risk implementation of virtualization (Rubens, 2007).

Management

With R2, the management of Windows Server 2008 both through the command line and through the GUI has been enhanced (Russel & Zacker, n. d.). In this release, Windows PowerShell has improved remote capabilities and can now be accessed as an installation option in Windows Server Core. On the other hand, improvements in the graphical management feature include full remote support for Server Manager . In addition, Windows Server 2008 R2 includes a new schema for the Active Directory, which enables enhancements in the daily administration of the Active Directory; a new set of Active Directory Windows PowerShell cmdlets; and an Active Directory Recycle Bin (Russel & Zacker, n. d.).

Moreover, improvements in file server and storage management are included. In particular, the new Windows File Classification Infrastructure enables the automation of data classification processes, which make data

management more economical and effective. The use of BranchCache also enhances the utilization of bandwidth in wide area network connections through the enabling of the data caching feature on Windows Server 2008 R2 and on Windows 7 machines at branch offices. As well, storage centralization on iSCSI storage area networks has become easier and more efficient through improvements in input/output performance, startup speed, and processor utilization.

Scalability

Windows Server 2008 R2 supports only 64-bit processors and for one operating instance, it can support up to 256 logical processor cores (Russel & Zacker, n. d.). In particular, Hyper-V virtual machines are capable of addressing up to 64 logical cores in one host. With the reduced overhead in the GUI and with the storage efficiency and performance improvements, Windows Server 2008 R2 is also able to scale up to bigger workloads. In addition, this release of Windows Server 2008 includes performance enhancements that decrease power consumption and improve virtual machine performance. As well, Hyper-V supports Second Level Address Translation, which utilizes new CPU features to improve virtual machine performance while minimizing the Windows Hypervisor's processing load. This enables the consolidation of servers and workloads on fewer physical servers, which in turn reduces rack costs, energy consumption, and administration overhead. Moreover, with Network Load Balancing, Windows Server 2008 R2 is capable of scaling across multiple servers. Similarly, improvements have been made for the support of services and applications that need persistent connections, as well as for the health monitoring of

Network Load Balancing clusters and the services and applications that run on them.

Web

Windows Server 2008 R2 includes Internet Information Services (IIS) 7. 5 and the Windows PowerShell provider for IIS , which enables management tasks to be automated (Russel & Zacker, n. d.). In addition, a new File Transfer Protocol server is included, which provides support for Unicode characters, Secure Sockets Layer, ad Internet Protocol ver. 6. In addition, Server Core includes Microsoft. NET Framework, which enables the management of IIS from either IIS Manager or Windows PowerShell. Moreover, IIS 7. 5 includes the Best Practices Analyzer, which simplifies the configuration and troubleshooting of IIS.

Networking and Access

DirectAccess is a new feature that allows for the secure connection of remote clients to the corporate network (Russel & Zacker, n. d.). It provides an always-on and seamless remote connection to corporate resources. In addition, DirectAccess works with Windows Server 2008 R2's Network Access Protection, which ensures that client computers receive security updates and run antimalware definition installations before a DirectAccess connection is made. In addition, clients that have a DirectAccess connection can be managed remotely by a corporate IT staff, which gives further assurance that the critical updates are run.

Integration with Windows 7

Although most of the Windows Server 2008 R2 features are compatible with any Windows operating system, DirectAccess works only with Windows 7 (Russel & Zacker, n. d.). Other features also work better with Windows 7 but still, they provide significant improvements even on other Windows operating systems.

With regards to the integration of Windows Server 2008 R2 with Windows 7, the improvements include the BitLocker To Go, which is a removable drive security; VDI or the virtualized desktops; the Group Policy where hardware enables a more efficient management of power consumption; the BranchCache and read-only Distributed File System Replication, which enable improved branch office security and performance; the Remote Workplace plus RD

Gateway and RD Session Host, which enables the establishment of a secure remote connection even when using public computers; and DirectAccess, which provides a simpler remote connection process for remote users.

Conclusion

This paper discussed the various features and improvements in Windows
Server 2008 R2 in terms of its in virtualization, management, scalability,
web, and networking and access capabilities, as well as in its integration with
Window 7. Although certain features work only with Windows 7 while others
also work better with Windows 7, the improvements in this release of
Windows Server 2008 would still have a significant impact when using other
Windows operating systems such as Windows XP or Windows Vista.

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