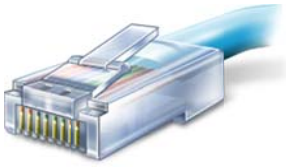
Microsoft

Windows Server 2008 R2
Hyper-V™

Virtualization technology plays an increasingly critical role at all levels of IT, from the desktop to the datacenter. As more organizations are using virtualization to manage mission-critical workloads, they are taking advantage of the cost-saving benefits of server consolidation. Many organizations plan to extend virtualization to support core functions, such as business continuity, disaster recovery, testing and development, and remote office management. To help customers adopt virtualization easily, Microsoft has developed a next-generation server virtualization solution as a feature of Microsoft® Windows Server® 2008. Hyper-V™ is a virtualization platform that provides reliable and scalable platform capabilities along with a single set of integrated management tools to manage both physical and virtual resources. In addition, Microsoft and its partner ecosystem provide comprehensive support that enables you to deploy applications on Microsoft's virtualization platform with confidence and peace of mind.

Since Hyper-V is part of Windows Server 2008 R2, it provides great value by enabling IT Professionals to continue to leverage their individual skills, and the collective knowledge of the community, while minimizing the learning curve. With a breadth of solutions from Microsoft partners, and with comprehensive support from Microsoft for its applications, and heterogeneous guest operating systems, customers can virtualize with confidence.

| Better flexibility | Improved performance | Greater Scalability |
|---|---|---|
| Hyper-V, as a feature of Windows Server 2008 R2, provides high availability and dynamic migration capabilities during both planned and unplanned downtime via live migration and failover clustering, across a broader range of Hyper-V host hardware, providing the flexibility of a dynamic IT infrastructure.<br><br>With Hyper-V, customers can use a single set of tools to manage both their physical and virtual resources. It easily plugs into customers' IT infrastructure because they can leverage their existing patching, provisioning, management, support tools, and processes. | The Hyper-V™ leverages several new processor, memory management and networking technologies supplied by both Microsoft's partner eco-system as well as in Windows Server 2008 R2 to improve overall host and virtual machine performance<br><br>By enabling virtual machines to take advantage of powerful features like multi-core technology, improved disk access, and greater memory support, Hyper-V improves scalability and performance of the virtualization platform. | Hyper-V provides better reliability and greater scalability that allows you to virtualize your infrastructure. It has a thin, microkernelized hypervisor architecture with a minimal attack surface, and is available as a Server Core role.<br><br>With support for up to 64 logical processors, CPU core parking and processor power management, Hyper-V can handle the most demanding workloads while reducing server power consumption |
|  |  |  |

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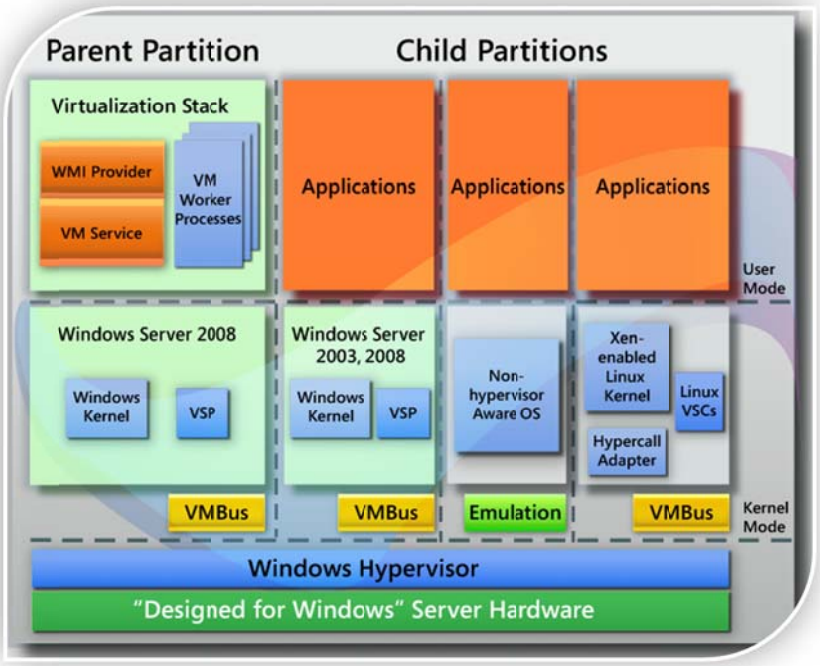
|---|---|
| For More Information: | http://www.microsoft.com/windowsserver2008/en/us/hyperv-R2.aspx |
| Windows Server 2008 Resources: | http://go.microsoft.com/fwlink/?linkid=90852 |

## Hypervisor-Based Architecture

With a microkernelized hypervisor-based architecture, Hyper-V provides a more secure, reliable foundation for running virtual machines. The minimal hypervisor does not contain drivers; instead, the drivers are hosted in the parent partition and along with the new IO sharing model, Hyper-V provides an inherently more secure architecture.

Hyper-V allows you to take advantage of a new and enhanced set of features and benefits, such as support for symmetric multiprocessing (SMP), dynamic storage solutions, support for up to 64 GB of memory per virtual machine, and the option for a minimal Server Core installation.




### *Your Benefit*

- ✓ Reduce hardware, maintenance, and staffing costs through server consolidation
- ✓ Simplify and automate the design, deployment, and operation of complex systems with integrated management
- ✓ Improve IT environment flexibility through consolidation of heterogeneous workloads
- ✓ Virtualize infrastructure workloads on Server Core to run in their most reliable configurations
- ✓ Leverage the high-availability capabilities of Windows Server and System Center management tools, better enabling you to meet stringent response metrics.
- ✓ Enjoy comprehensive support from Microsoft and a wide range of solutions from Microsoft partners

| *Top 10 Reasons to Consider* | *Key Features* |
|---|---|
| ❑ Reduce infrastructure costs through consolidation | Flexible licensing policies and robust networking support, including VLAN, Network Address Translation (NAT), and Network Access Protection (NAP) policies (quarantine) |
| ❑ Virtualize the most demanding workloads | Utilize up to 64 logical processors, consolidation of 32-bit and 64-bit workloads, support for up to four virtual processors and up to 64 GB of RAM per virtual machine (VM), and new I/O architecture |
| ❑ Virtualize for high availability | Clustering, Network Load Balancing, and minimal Server Core installation |
| ❑ Enhance security and reliability | Microkernelized hypervisor architecture, minimal Server Core installation, and role-based security through Active Directory® integration |
| ❑ Protect important data using live backup | Virtual machine snapshot, Volume Shadow Copy Service integration |
| ❑ Minimize planned downtime | Live Migration and Cluster services |
| ❑ Delegate virtual machine management | Granular VM management permissions and System Center Virtual Machine Manager integration |
| ❑ Reduce support time with integrated management | Optimal integration with Microsoft and third-party management tools |
| ❑ Save time and money with a more flexible test environment | Extensive and scalable guest operating system support, VM snapshots |
| ❑ Take advantage of broad compatibility | Support for a broad range of guest operating systems; support for all WHQL-certified drivers |

Hyper-V System Requirements — Refer to http://www.microsoft.com/windowsserver2008/en/us/hyperv-R2.aspx



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