Microsoft® System Center Virtual Machine Manager 2008 R2

Delivering Cost Savings, Agility, and Managability for Today's Virtualized Data Center

System Center Virtual Machine Manager 2008 R2 provides a management solution for today's virtualized data center affording centralized management of the IT infrastructure, increased server utilization capability, and dynamic resource optimization across multiple virtualization and physical platforms.
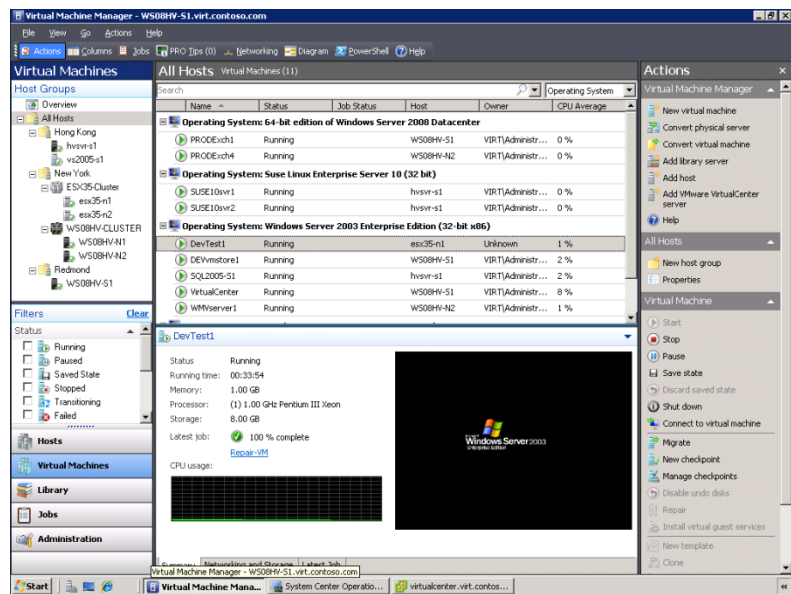
Virtual Machine Manager 2008 R2 provides the following key features:

· Designed for managing virtual machines running on Windows Server® 2008 & 2008 R2 Hyper–V™ and Microsoft Hyper-V Servers.
· Virtualization support for virtual machines running on Microsoft Virtual Server and VMware ESX.
· Live Migration for dynamic allocation of server resources
· Dynamic Hot-add and Removal of storage resources
· Clustered Shared Volume support
· Performance and Resource Optimization (PRO) for dynamic and responsive management of virtual infrastructure.
· Intelligent Placement of virtual workloads on the best-suited physical host servers.

Maximize IT Resources

Virtual Machine Manager 2008 R2 delivers straightforward support for consolidating physical servers in a virtual environment increasing overall utilization of physical servers and lowering IT budget spend for power, space and cooling.

Heterogeneous Virtualization Management from One Console

In addition to running on the Hyper-V platform and the previously supported Microsoft Virtual Server, Virtual Machine

Manager (VMM) provides compatibility with VMware through Virtual Center integration. VMM supports VMware-specific features such as VMotion while also providing VMM-specific features like Intelligent Placement to VMware servers. It further provides a straightforward wizard that can convert VMware virtual machines to VHDs through an easy and speedy Virtual-to-Virtual (V2V) transfer process.

Fast, Reliable P2V Conversions

Virtual Machine Manager helps improve the P2V experience by integrating the P2V conversion process and by using the Volume Shadow Copy Service (VSS) of Windows to create a virtual machine faster and without having to interrupt the source physical server.

Intelligent Placement

When a virtual machine is deployed, Virtual Machine Manager analyzes performance data and resource requirements for both the workload and the host. This allows an IT administrator to fine-tune placement algorithms to get tailor-made deployment recommendations. This process is essential to maximizing the utilization of physical assets, whether the organization's goal is to balance loads among existing hosts or to maximize resource usage on each host.

Administrator console of System Center Virtual Manager 2008 R2

Centralized Resource Management

The Virtual Machine Manager Administrator Console provides a central work area for performing resource tuning. Resource settings can be changed on virtual machines without interrupting workloads and virtual machines can be migrated from one host to another to optimize physical resources.

Achieve Agility

Virtual Machine Manger 2008 R2 provides rapid provisioning of virtual machines by administrators and authorized users.

Dynamic or Event-based Resource Optimization

Performance and Resource Optimization (PRO) is a feature of Virtual Machine Manager, which helps customers ensure that their virtual machine infrastructure is operating in an ideal and efficient manner. PRO uses administrator-set rules and policies to dynamically respond to poor performance or failures of virtualized hardware, operating systems or applications. PRO is also an open and extensible framework allowing vendors and IT professionals to utilize the functionality of PRO from their products and solutions.

Live Migration

Virtual Machine Manager 2008 R2 supports Windows Server 2008 R2 Live Migration. Live Migration enables you to move virtual machines between Hyper-V hosts with no downtime and reduces the planned downtime associated with routine system maintenance. When Live Migration is coupled with VMM's Performance Resource Optimization (PRO) feature you can create a dynamic IT environment, automatically reallocating virtual machine workloads based on resource utilization and available capacity.

Centralized Library

The library in Virtual Machine Manager centrally manages all the building blocks of the virtual data center, such as virtual hard disks, CD/DVD media images, post deployment customization scripts and hardware configurations, as well as templates and ISO images.

Rapid Deployment of Virtual Machine Templates

The library in Virtual Machine Manager adds an important tool to the administrator's toolkit: virtual machine templates. Templates contain both the guest operating system configuration and the hardware configuration, to ensure consistency in the data center.

Centralized Monitoring

Once workloads are consolidated onto a virtual infrastructure, Virtual Machine Manager provides IT administrators with reports and monitoring data. These

Screen showing Intelligent Placement recommendations.

capabilities can be extended with integration with Operations Manager 2007.

Delegated Administrator Role

Available in this version of Virtual Machine Manager is also the delegated administrator role, allowing specialization of the tasks and functions that administrators are assigned. For example,

a delegated administrator may be given responsibility for managing the virtualization needs of a specific host group of servers or sub-segment of users.

Quick Storage Migration

Quick storage migration enables an administrator to move a virtual machine's storage to a different LUN or even to a different host while the VM is running, both with a minimum of downtime. Typically, the amount of downtime required for quick storage migration is less

than 2 minutes, though the actual amount of downtime depends on the virtual machine's activity level during the move. In addition, VMM 2008 R2 can now take advantage of VMware's Storage VMotion™ feature for moving VMware virtual machines to different storage locations with no downtime. Quick storage migration is especially useful for customers taking advantage of the new CSV feature in Windows Server 2008 R2.

Leverage Existing Skills

Virtual Machine Manager 2008 R2 maximizes the use of the IT department's existing Windows Server and System Center expertise, thus minimizing the need for extensive retraining of administrators and Help Desk personnel.

Familiar Interface, Common Foundation

The Virtual Machine Manager Administrator Console is built on the familiar System Center Framework user interface, helping administrators quickly and easily become proficient in managing their virtual machines.

Windows PowerShell™ integration

Virtual Machine Manager is written completely around Windows PowerShell, an administrator-focused command shell and scripting language with more than 170 standard command-line tools and consistent syntax and utilities.
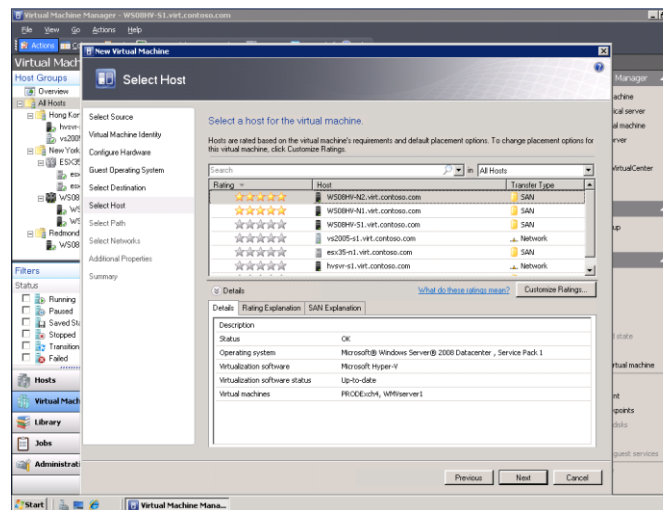
For more information about System Center Virtual Machine Manager, visit:

www.microsoft.com/scvmm

www.microsoft.com/systemcenter

www.microsoft.com/virtualization

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