Implementing and Managing Microsoft Server Virtualization (Hyper-V)

Cursusduur: 5.00 Dagen        Cursuscode: M10215

Beschrijving:
This five-day, instructor-led course will provide you with the knowledge and skills to deploy and manage a server virtualization environment using Microsoft technologies. The course provides details on how to deploy and manage Hyper-V and Remote Desktop Services on Windows Server 2008 R2. The course also provides details on how to manage a server virtualization environment by using System Center products such as System Center Virtual Machine Manager (VMM) 2008, SCVMM 2008 R2, System Center Operations Manager 2007 R2, System Center Data Protection Manager 2007 R2, and System Center Configuration Manager 2007 R2.

Doelgroep:
The primary audience for this course is Microsoft Windows Server 2008 system administrators who will manage and implement Server Virtualization technologies within their network. The students for this course are responsible for virtualizing their current servers, or have been requested or directed by their information technology (IT) management to research and/or implement server virtualization in the existing environment. They should have a minimum of 1.5 years of experience working with Microsoft Windows Server 2008 as a server administrator. Prior experience with virtualization is not expected. However, familiarity with virtualization concepts and management tools is highly recommended.

Vereiste kennis en vaardigheden:
This course does not require previous server virtualization experience, but does require that students have significant experience in managing Windows Server 2008 or Windows Server 2008 R2.

Examens en certificering
Prepares students for TS Server Virtualization R2 exam 70-659.
Lab : Evaluating the Network Environment for Virtualization

- Describe virtualization as it relates to server, desktop, and application environments. Students also will learn how to plan for critical decision points related to hardware requirements, storage, availability, and security.

Lessons

- Overview of Microsoft Virtualization
- Overview of Microsoft Virtualization
- Evaluating the Current Environment for Virtualization
- Evaluating the Current Environment for Virtualization

Lab : Evaluating the Network Environment for Virtualization

- Planning for the Hyper-V Server Role
- Assessing the Computing Environment by Using the MAP Toolkit

Module 1: Evaluating and Planning for Virtualization

This module explains how to use the monitoring tools included with VMM 2008 and integrate System Center Operations Manager to provide extended monitoring, reporting, and troubleshooting capabilities.

Lessons

- Monitoring Jobs in VMM 2008 R2
- Integrating System Center Operations Manager with VMM 2008 R2
- Configuring Performance and Resource Optimization

Lab : Integrating System Center Operations Manager with VMM 2008

- Configuring System Center Operations Manager for VMM 2008 Integration
- Configuring PRO

Module 12: Backup and Restore Strategies for Virtual Machines

This module explains how to configure and manage resources in the VMM Library.

Lessons

- Overview of the VMM Library
- Managing Profiles and Templates
- Designing Fault Tolerance for the VMM Library
- Overview of Backup and Restore Options for Virtual Machines and the VMM Database
- Implementing Data Protection Manager for Backing Up the VMM Infrastructure
Module 2: Installing and Configuring the Hyper-V Server Role

After completing this module, you will be able to install the Hyper-V server role, and configure host and virtual network settings.

Installing the Hyper-V Server Role

Configuring Hyper-V Settings and Virtual Networks

Lab : Installing and Configuring the Hyper-V Server Role

Installing the Hyper-V Role

Determining Virtual Network Configuration Settings Based On Organizational Requirements

Configuring Virtual Network Settings Using Virtual Network Manager

In this exercise, you will: Configure virtual networks based on the design in Exercise 2

Installing Remote Management Tools

After completing this module, students will be able to:

- Describe the prerequisites for installing Hyper-V.
- Describe the process for installing Hyper-V on a Windows Server 2008 R2 host.
- Identify the management tools that you can use to manage the Hyper-V server role.
- Install and configure Hyper-V management for remote administration.

Installing the Hyper-V Server Role on a Server Core Installation of Windows Server 2008 R2.

Modify the default folders for virtual machines and virtual hard disks.

Configure Hyper-V user settings.

Determine when to use external, internal, or private virtual machine networks.

Use Virtual Network Manager to configure virtual networks.

Perform actions used to operate a virtual machine.

Perform actions used to deploy, migrate, and store virtual machines.

Perform actions used to manage configurations, disks, and checkpoints.

Describe virtual machine property options.

Describe considerations for using checkpoints.

Create and modify a VMM checkpoint.

Manage VMM checkpoints.

Module 7: Configuring and Managing the VMM Library

This module explains how to configure and manage resources in the VMM Library.

Adding a Library Server and Library Resources

Creating a Hardware Profile

Creating a Guest Operating-System Profile

Creating a Virtual Machine Template

Configuring highly available file servers for Virtual Machine Library Using DFS

After completing this module, students will be able to:

- Describe what the VMM Library is and the types of resources that are stored within the library.
- Add a Library Server and assign library groups.
- Add library shares to a library server.
- Add file-based resources to the library.
- Describe hardware profiles and benefits of their usage.
- Describe guest operating system profiles and benefits of their usage.
- Show how to create a hardware and guest operating-system profile.
- Describe the benefits for creating and using virtual machine templates.
- Describe the components that make up a virtual machine template.
- Create a virtual machine template.
- Describe options for providing fault tolerance for the VMM Library.

Lab : Using Data Protection Manager to Back up the VMM Infrastructure

This module explains how to back up the VMM infrastructure.

Describe options for backing up virtual machines.

Use the SCVMM Administrator console to back up the VMM database.

Describe the process and tools used to restore the VMM database.

Describe the features of Data Protection Manager 2007 SP1.

Describe the prerequisites for installing and implementing Data Protection Manager 2007 SP1.

Describe the process for installing and configuring Data Protection Manager 2007 SP1.

Describe the process for configuring backup processes for SCVMM 2008 and Data Protection Manager 2007 SP1.

Module 13: Desktop Virtualization Using Remote Desktop Services

This module explains how to use remote desktop services.

Describe the prerequisites for installing Remote Desktop Services.

Implementing the Remote Desktop Session Host

Implementing the Remote Desktop Broker

Implementing the Remote Desktop Connection Virtualization Host

Lab : Implementing Remote Desktop Services

Installing the Remote Desktop Session Host

Installing the Remote Desktop Session Host

Installing the Remote Desktop Connection Broker

Installing and Configuring the Remote Desktop Virtualization Host

Deploying an Application Using RemoteApp

After completing this module, students will be able to:

- Describe the benefits of Remote Desktop Services.
- Describe the Role Services included with the Remote Desktop Services server role.
- Describe updates to the client experience with Remote Desktop Services.
- Describe RD Licensing.
- Describe the prerequisites for installing and implementing the RD Session Host.
- Describe common configuration and management tasks for the RD Session Host.
- Describe how to secure an RD Session Host.
Module 3: Creating and Configuring Virtual Hard Disks and Virtual Machines

After completing this module, you will be able to determine and configure the most appropriate virtual hard disk(s) to use in a virtual machine. Students also will be able to create and configure virtual machines.

Lesson

Creating and Configuring Virtual Hard Disks
Creating and Configuring Virtual Machines
Managing Virtual Machine Snapshots
Working with the Virtual Machine Connection Application

Lab: Creating Virtual Hard Disks and Virtual Machines

Creating Appropriate Virtual Hard Disks, Based On Organizational Requirements
Creating New Virtual Machines Using the Virtual Machine Wizard
Modifying Virtual Machine Settings
Creating and Modifying Virtual Machine Snapshots
After completing this module, students will be able to:
- Describe storage options for virtual machines.
- Prepare the host computer to attach physical disks to a virtual machine.
- Configure storage based on Internet Small Computer System Interface (iSCSI).
- Describe the types of virtual hard disks.
- Describe the use and benefits of pass-through disks.
- Create a new virtual hard disk using the new Virtual Hard Disk Wizard.
- Edit and inspect virtual hard disks.
- Describe considerations for creating new virtual machines.
- Create a new virtual machine using the new Virtual Machine Wizard.
- Configure virtual machine settings.
- Describe the Hyper-V integration services.
- Import and export virtual machines.
- Describe the file formats that you use for virtual machines.
- Migrate legacy virtual machines to Hyper-V.
- Describe what a virtual machine snapshot is and how you use it. Be sure to include information on the file format.
- Describe considerations for using snapshots, including storage sizing and requirements.
- Creating and managing virtual machine snapshots.
- This lesson will begin by describing a snapshot and the scenarios in which you use snapshots in the enterprise environment.
- This lesson also describes the concept of a virtual machine snapshot. This lesson

Module 8: Configuring User Roles and the Virtual Machine Manager Self-Service Portal

This module explains how to configure and manage user roles and the Virtual Machine Manager Self-Service Portal.

Lesson

Configuring User Roles
Installing and Configuring the VMM Self-Service Portal

Lab: Configuring the VMM Self-Service Portal

Preparing the Host Group and User Role Requirements
Implementing the Self-Service Portal
After completing this module, students will be able to:
- Describe the concept of role-based security in VMM 2008 R2.
- Describe the role types that are available in VMM 2008 R2.
- Describe the objects that you can delegate by using Role-based security.
- Describe the process for creating a user role in VMM 2008.
- Create user roles in VMM 2008 R2.
- Determine the most appropriate role-based security configuration based upon organizational requirements.
- Describe considerations for implementing the VMM Self-Service Portal.
- Describe the overall process for implementing the Self-Service Portal.
- Install the SCVMM Self-Service Portal.
- Configure user access to the SCVMM Self-Service Portal.
- Describe security best practices for the SCVMM Self-Service Portal.

Module 9: Implementing High Availability for Server Virtualization

This module explains how to configure high availability for server virtualization.

Lesson

Overview of Failover Clustering
Implementing Failover Clustering with Hyper-V
Implementing High Availability with VMM 2008 R2

Lab: Implementing High Availability for Server Virtualization

Installing and Configuring the Failover Clustering Feature
Configuring Live Migration

Module 14: Extending Remote Desktop Services Outside the Organization

This module explains how to implement and configure the Remote Desktop Gateway and Remote Desktop Web Access.

Lesson

Configuring the Remote Desktop Gateway
Configuring Remote Desktop Web Access

Lab: Integrating Remote Desktop Web Access into the Desktop Virtualization Infrastructure

Installing Remote Desktop Gateway
Installing Remote Desktop Web Access
Integrating RemoteApp and Desktop Connection with Remote Desktop Web Access
After completing this module, students will be able to:
- Describe how the Remote Desktop Gateway works.
- Describe how to secure the Remote Desktop Gateway.
- Use Authorization Policies with Remote desktop gateway.
- Describe how to configure the Remote Desktop Gateway.
- Describe how to use network access protocol (NAP) remediation with Remote Desktop Gateway.
- Use certificates for Remote Desktop Gateway.
- Describe the prerequisites for installing and implementing Remote Desktop Web Access.
- Describe how to implement RemoteApp and Desktop connection with RD Web Access.
- Describe how to secure Remote Desktop Web Access.
focuses on the management aspects of applying, and deleting, and reverting snapshots. This lesson will also discuss how to configure the snapshot.

- Describe the Virtual Machine Connection Tool.
- List the considerations for using the virtual machine connection tool.
- Discuss connecting to remote virtual machines from a domain and to a virtual machine in a remote domain.

Module 4: Integrating System Center Virtual Machine Manager with Microsoft Hyper-V Server 2008 R2

After completing this module, students will be able to plan for, and deploy, System Center Virtual Machine Manager with their Hyper-V solution. Lessons

- Planning for Integration of System Center Virtual Machine Manager
- Installing the VMM Server and Administrator Console
- Managing Hosts and Host Groups

Lab: Planning and Deploying VMM 2008 R2

- Planning for the Implementation of SCVMM 2008 R2, Based Upon Organizational Requirements
- Installing and Configuring SCVMM Server and Administration Console Components

After completing this module, students will be able to:

- Create and modify the properties of host groups.
- Describe methods for maintaining software updates.
- Describe how the Offline Virtual Machine Servicing Tool works.

Module 10: Maintaining Software Updates Using the Offline Virtual Machine Servicing Tool

This module explains how to maintain software updates using the Offline Virtual Machine Servicing Tool. Lessons

- Overview of the Offline Virtual Machine Servicing Tool
- Configuring WSUS and the Offline Virtual Machine Servicing Tool

Lab: Maintaining Software Updates Using the Offline Virtual Machine Servicing Tool

- Configuring Infrastructure Prerequisites to Support the Offline Virtual Machine Servicing Tool
- Installing and Configuring the Offline Virtual Machine Servicing Tool

After completing this module, students will be able to:

- Describe methods for maintaining software updates.
| Configure default virtual machine paths. |
| Describe the process for adding hosts in an Active Directory directory service domain. |
| Describe the process for adding hosts located in a perimeter network. |
| Describe the management options for a host. |

Module 5: Creating and Deploying Virtual Machines Using System Center Virtual Machine Manager 2008 R2

After completing this module, students will be able to use VMM 2008 R2 to create and deploy virtual machines.

Lessons

- Creating a New Virtual Machine Using VMM 2008 R2
- Converting a Physical Server to a Virtual Machine
- Converting and Migrating Virtual Machines

- Servicing Tool works.
- Describe infrastructure requirements for the Offline Virtual Machine Servicing Tool.
- Describe tasks required to prepare the virtual machines for offline software-update management.
- Describe the process for configuration WSUS to support virtual machine servicing.
- Configure WSUS to support virtual machine servicing.
- Describe the process for installing and configuring the Offline Virtual Machine Servicing Tool.
- Install and configure the Offline Virtual Machine Servicing Tool.

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Nadere informatie:

Neem voor nadere informatie of boekingen contact op met onze Customer Service Desk 030 - 60 89 444

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