

Planning and Designing Microsoft Virtualization Solutions

This five-day instructor-led course provides students with the knowledge and skills to design a complex data center and desktop architecture using Microsoft Windows Server 2008 R2 with Hyper-V or Hyper-V Server 2008 R2, Remote Desktop Services (RDS), System Center Suite, Microsoft Enterprise Desktop Virtualization (MED-V), Application Virtualization 4.6 (APP-V), as well as supporting applications and utilities. The information included in this class will provide students with a solid baseline of technology solutions, architecture considerations, and management requirements that can be integrated to build a successful virtualization infrastructure.

Détails

- **Code :** MPD-MVS
- **Durée :** 5 jours (35 heures)

Public

- Infrastructure Architects
- Virtualization Specialists

Pré-requis

- Fundamental knowledge of System Center products including System Center Configuration Manager, System Center Operations Manager, System Center Virtual Machine Manager, and System Center Data Protection Manager

Objectifs

- se préparer à l'examen 70-693

Programme

Module 1: Planning a Virtualization Strategy

- This module will review key factors that must be considered when planning a data center or desktop virtualization strategy.

Lessons

- Understanding Virtualization Levels
- Defining the Case for Virtualization
- Reviewing Virtualization Technologies
- Reviewing the System Center Suite
- Understanding Licensing Options
- Reviewing Integration with Third-Party Products

Lab : Hyper-V Server 2008 R2 Installation

- Installing Hyper-V Server 2008 R2
- Configuring Hyper-V Server 2008 R2

Lab : Windows XP Mode Installation

- Installing Windows 7
- Install Windows Virtual PC
- Install Windows XP Mode
- Configuring and Launching a Virtual Application

Lab : Application Virtualization 4.6 Installation

- Installing Application Virtualization Management Server
- Configuring the Windows Firewall
- Installing Application Virtualization Desktop Client
- Configuring the Default Application
- Launching the Default Application

After completing this module, students will be able to:

- Understand the major factors to consider when they begin to architect a data center or desktop virtualization infrastructure.
- Envision a virtualization infrastructure strategy based on a set

of basic business and technical requirements.

Module 2: Designing a Virtualization Platform Infrastructure and High-Availability Strategy

- This module will explain how to design a highly-available server virtualization infrastructure using Windows Server 2008 R2 Hyper-V.

Lessons

- Defining Server Virtualization Scenarios
- Defining Hyper-V Base Architectures
- Performing a Pre-Design Discovery
- Designing a Server Virtualization Infrastructure
- Designing the Hyper-V Host Architecture
- Designing the Virtual Machine Architecture
- Sizing a Hyper-V Host Farm

Lab : Configuring and Using MAP 4.0

- Collecting Client Inventory Data
- Assessing Windows 7 Readiness
- Defining and Setting Custom Assessment Properties

Lab : Hyper-V Storage Design and Configuration

- Building a Large disk
- Duplicating a Disk
- Designing a Pass-through Disk
- Designing a Mobile Clustering Storage Solution

Lab : Hyper-V Virtual Network Design and Configuration

- Virtual Network Design For VM Isolation
- Virtual Network Design Between Virtual Machines Using VLANs
- Virtual Network Design Using VLANs

Lab : Hyper-V Platform Virtualization Design Exercise

- Collecting Performance Data
- Obtaining Inventory Data for the Design Exercise
- Design Exercise
- Server Consolidation Using Virtualization

Lab : Two-Node Virtual Machine Failover Cluster (Optional)

- Add and Configure Virtual Network Adapters
- Configuring the iSCSI Shared Disks
- Adding the Failover Clustering Feature to the Virtual Machines
- Configuring Failover Clustering on the Virtual Machines
- Using Failover Cluster Manager

Lab : Two-Node Hyper-V Host Failover Cluster with Live Migration (Optional)

- Prepare the Physical Machines
- Configure the iSCSI Target
- Configure the iSCSI Initiator
- Adding the Failover Clustering Feature to the Hyper-V Hosts
- Configuring Failover Clustering on the Hyper-V Hosts
- Configuring Cluster Shared Volumes
- Creating a New Virtual Machine
- Making a Virtual Machine Highly Available
- Configuring Cluster Networks for Live Migration
- Initiating a Live Migration
- Live Migration of a High-Availability Virtual Machine

After completing this module, students will be able to:

- Understand and design a Windows Server 2008 R2 Hyper-V Virtualization Infrastructure
- Understand Hyper-V storage options and design a storage environment
- Understand Hyper-V virtual networks options and design a virtual network environment
- Understand Hyper-V Snapshots and how to manage a Snapshot hierarchy
- Understand Hyper-V host and virtual machine failover cluster options for high-availability and how to design a high-availability environment

Module 3: Designing a Virtualized Desktop Infrastructure

- This module will explain how to design a virtualized desktop infrastructure based on a local desktop or central VDI strategy.

Lessons

- Defining Desktop Virtualization Scenarios
- Designing a Local Desktop Infrastructure
- Designing a VDI Deployment using Windows Server 2008 R2 Hyper-V and RDS
- Designing an Application Strategy using RemoteApp
- Designing a VDI Deployment using Windows Server 2008 R2 Hyper-V and Citrix XenDesktop

Lab : VDI with Windows Server 2008 R2 Hyper-V and RDS Connection Broker

- Configuring the Hyper-V Host Server

- Configuring the Remote Desktop Session Host Role Service
- Configuring the Remote Desktop Virtualization Host Role Service
- Configuring the Remote Desktop Connection Broker Role Service
- Configuring the Remote Desktop Connection Web Access Role Service
- Configuring the Virtual Machines for RDS
- Configuring the Virtual Machines for Rollback
- Configuring the Virtual Desktop Pool
- Connecting to a Virtual Desktop Pool
- Configuring the Personal Virtual Desktop
- Connecting to a Personal Virtual Desktop

Lab : Using RemoteApp for Hyper-V to Deliver Applications in a VDI

- Configuring the Virtual Machine Guest Operating System
- Creating an RDP File
- Connecting to the Notepad Application using RemoteApp

Lab : Scenario-Based Virtualization Desktop Infrastructure Design Exercise

- Design a Virtualization Desktop Infrastructure

After completing this module, students will be able to:

- Select and design a virtualized desktop infrastructure
- Design a VDI based on Windows Server 2008 R2 Hyper-V and RDS
- Design an application delivery strategy using RemoteApp

Module 4: Designing an Application Virtualization Infrastructure

- This module will explain how to design an application delivery infrastructure for virtualized desktops using Application Virtualization 4.6.

Lessons

- Planning an Application Virtualization 4.6 Infrastructure
- Designing an Application Virtualization 4.6 Infrastructure
- Using Application Virtualization 4.6 with System Center Configuration Manager 2007 R2
- Using Application Virtualization 4.6 with RDS

Lab : Using Application Virtualization 4.6 to Deliver Applications in a VDI Scenario

- Installing Application Virtualization Sequencer
- Sequencing Word Viewer 2003
- Launching the Word Viewer 2003 Application From a Personal Virtual Desktop

After completing this module, students will be able to:

- Understand the Application Virtualization 4.6 architecture
- Design an Application Virtualization 4.6 Infrastructure for application delivery in a VDI environment

Module 5: Designing a Virtualization Infrastructure Management Strategy

- This module will explain the factors to consider and Microsoft suite of applications available to design a management

infrastructure.

Lessons

- Developing a Virtualization Infrastructure Management Environment with the System Center Suite
- Developing a Virtual Machine Deployment Strategy
- Developing a Virtual Machine Conversion Strategy
- Developing an Administrative Strategy
- Developing a Virtual Machine Migration Strategy
- Developing a Disaster Recovery Strategy
- Developing a Maintenance Strategy

Lab : Configuring and Using a System Center VMM Self-Service Portal

- Configuring Self-Service User Policy
- Logging into a VMM 2008 R2 Self-Service Portal
- Creating a Virtual Machine using the Self-Service Portal

Lab : Performing a P2V Conversion using System Center VMM 2008 R2

- Performing a P2V Conversion

Lab : Configuration and Use of the Remote Server Administration Toolkit

- Windows 7 RSAT Installation
- Adding an RSAT Administration Tool for Hyper-V
- Managing a Hyper-V Server using RSAT

Lab : Performing a Virtual Machine Export/Import using System Center VMM

- Exporting a Virtual Machine Using VMM 2008 R2
- Importing a Virtual Machine Using VMM 2008 R2

Lab : Performing a Virtual Machine Backup Using System Center DPM

- Configuring Storage for Use with DPM 2007 SP1
- Installing a DPM Agent in a Virtual Machine
- Creating a Protection Group to Backup a Virtual Machine
- Recovering a Directory to a Virtual Machine

Lab : Offline Virtual Machine Update using System Center ConfigMgr 2007 SP2

- Configuring the Hyper-V Host Server
- Installing OVMST 2.1 on the VMM Server
- Adding the Hyper-V Host Server as a Managed VMM host
- Configuring the Client Virtual Machine Firewall Settings
- Configuring System Center ConfigMgr 2007 SP2
- Storing the Client Virtual Machine in the VMM Library
- Configuring OVMST 2.1 to Perform an Offline Virtual Machine Update
- Monitoring an Offline Virtual Machine Update using OVMST 2.1

After completing this module, students will be able to:

- Understand the critical areas of management for a virtualization infrastructure
- Understand the System Center Suite and how it can be used to design a virtualization infrastructure management strategy
- Identify applications and utilities available to perform virtualization infrastructure management tasks

Modalités

- **Type d'action** :Acquisition des connaissances
- **Moyens de la formation** :Formation présentielle - 1 poste par stagiaire - 1 vidéo projecteur - Support de cours fourni à chaque stagiaire
- **Modalités pédagogiques** :Exposés - Cas pratiques - Synthèse
- **Validation** :Exercices de validation - Attestation de stages