

Kurs-Dokumentation



Zentrum für Informatik ZFI AG

**Implementing and Managing Microsoft Server
Virtualization (VMSS-0312) -IT Ausbildung
nach Mass**

<http://www.zfi.ch/VMSS-0312>

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Titel	Implementing and Managing Microsoft Server Virtualization
Untertitel	effiziente Server-Virtualisierung mit Hyper-V
Einleitung	<p>Die Servervirtualisierung erstellt separate Betriebssystemumgebungen in Form von virtuellen Maschinen (VMs), die vom physischen Host-Server logisch isoliert sind. Dies erlaubt es, die zur Verfügung stehenden Ressourcen wie Hardware, Speicherplatz etc besser auszunutzen, um die Kosten sowie den Strombedarf zu reduzieren und die Verfügbarkeit sowie die Flexibilität zu erhöhen. Gleichzeitig bleiben die Isolation und Sicherheit der virtuellen Betriebssystemumgebungen erhalten. Die von Microsoft entwickelte Virtualisierungstechnologie Hyper-V lässt sich sowohl zur Virtualisierung von Serversystemen als auch zur Desktopvirtualisierung mittels Virtual Desktop Infrastructure nutzen. Dieser ZFI/Microsoft-Kurs führt die Teilnehmenden systematisch in die Microsoft-Server-Virtualisierungs-Technologie ein. Dabei werden die neuesten Produkte berücksichtigt: Server 2008 R2, System Center Virtual Machine Manager (VMM) 2008, SCVMM 2008 R2, System Center Operations Manager 2007 R2, System Center Data Protection Manager 2007 R2, und System Center Configuration Manager 2007 R2. Der Kurs setzt keine Virtualisierungs-Vorkenntnisse voraus. Unerlässlich sind jedoch sehr gute Administrations-Kenntnisse des Windows Servers 2008 oder Server 2008 R2.</p>
Ihr Nutzen	<p>After completing this course, students will be able to:</p> <ul style="list-style-type: none">- Describe server, desktop, and application virtualization.- Describe how you use Microsoft System Center is to manage the virtual infrastructure.- Evaluate a network environment for server virtualization.- Plan for the implementation of the Hyper-V server role.- Install the Hyper-V Server Role.- Manage Hyper-V settings and virtual networks.- Create and configure virtual machines.- Manage virtual machine snapshots.- Managing and maintaining the Virtual Machine Connection Tool.- Create and configure virtual machines.- Manage virtual machine snapshots.- Managing and maintaining the Virtual Machine Connection Tool.- Create a new virtual machine using SCVMM 2008 R2.- Convert a physical server to a virtual machine.- Convert and migrate virtual machines.- Clone virtual machines.- Describe common management tasks and property configuration settings for virtual machines managed by VMM 2008.- Describe when and how to use virtual machine checkpoints.- Overview of the VMM Library.- Manage profiles and templates.- Design fault tolerance for the VMM library.- Configure VMM user roles.- Install and configure the VMM Self-Service Portal.- Describe the Windows Server 2008 R2 Failover Cluster feature.- Implement failover clustering with Hyper-V and VMM 2008 R2.- Describe how to use the Offline Virtual Machine Servicing Tool to maintain updates for virtual machines.

	<ul style="list-style-type: none"> - Configure Windows Server Update Services (WSUS) and the Offline Virtual Machine Servicing Tool. - Monitor and manage jobs in VMM 2008 R2s. - Configure System Center Operations Manager integration. - Configure Performance and Resource Optimization (PRO). - Describe backup and restore options for virtual machines and the VMM database. - Implementing Data Protection Manager for backing up the VMM infrastructure. - Understand the use and role of Remote Desktop Services (RDS). - Implement the Remote Desktop Session Host. - Implement the Remote Desktop Connection Broker. - Implement the Remote Desktop Virtualization Host. - Configure the Remote Desktop Gateway. - Configure Remote Desktop Web Access. - Configure Remote Desktop Licensing.
Voraussetzungen	<p>Before attending this course, students must:</p> <ul style="list-style-type: none"> - Perform server administrator tasks responsible for building and maintaining a virtualization infrastructure. - Work or consult for a midsize to enterprise-size organization. - Have a basic understanding of server virtualization concepts related to Microsoft or other third-party virtualization technologies. - Support production, development, testing, high availability, business continuity, staging, classroom, or hosting environments based upon Windows Server 2008 technology. - Understand a Windows-based network, including Active Directory directory service. - Understand storage technologies, such as Storage Area Network (SAN) including Internet small computer system interface (iSCSI), Fiber Channel, and Direct Attached Storage (DAS). - Understand Windows Server 2008 failover clustering.
Teilnehmerkreis	<p>The primary audience for this course is Microsoft Windows Server 2008 system administrators who will manage and implement Server Virtualization technologies within their network.</p> <p>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.</p>
Unterlagen	Original Microsoft Kursunterlagen
Folgekurse	
Inhalt	<ul style="list-style-type: none"> - Evaluating and Planning for Virtualization Overview of Microsoft Virtualization Evaluating the Current Environment for Virtualization Evaluating the Current Environment for Virtualization Installing and Configuring the Hyper-V Server Role Installing the Hyper-V

Server RoleConfiguring Hyper-V Settings and Virtual Networks

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

Integrating System Center Virtual Machine Manager with Microsoft Hyper-V Server 2008 R2
Planning for Integration of System Center Virtual Machine Manager
Installing the VMM Server and Administrator Console
Managing Hosts and Host Groups

Creating and Deploying Virtual Machines Using System Center Virtual Machine Manager 2008 R2
Creating a New Virtual Machine Using VMM 2008 R2
Converting a Physical Server to a Virtual Machine
Converting and Migrating Virtual Machines

Managing Virtual Machines Using Virtual Machine Manager 2008
Overview of VMM Management Tasks
Creating and Managing Checkpoints

Configuring and Managing the VMM Library
Overview of the VMM Library
Managing Profiles and Templates
Designing Fault Tolerance for the VMM Library

Configuring User Roles and the Virtual Machine Manager Self-Service Portal
Configuring User Roles
Installing and Configuring the VMM Self-Service Portal

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

Maintaining Software Updates Using the Offline Virtual Machine Servicing Tool
Overview of the Offline Virtual Machine Servicing Tool
Configuring WSUS and the Offline Virtual Machine Servicing Tool

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

Backup and Restore Strategies for Virtual Machines
Overview of Backup and Restore Options for Virtual Machines and the VMM Database
Implementing Data Protection Manager for Backing Up the VMM Infrastructure

Desktop Virtualization Using Remote Desktop Services
Overview of Remote Desktop Services
Implementing the Remote Desktop Session Host
Implementing Remote Desktop Connection Broker
Implementing the Remote Desktop Connection Virtualization Host

Extending Remote Desktop Services Outside the

OrganizationConfiguring the Remote Desktop GatewayConfiguring Remote Desktop Web Access

Beitrag

Der Teilnehmerbeitrag versteht sich rein netto. Das ZFI ist (gemäss MwSt-Gesetz) nicht Mehrwertsteuerpflichtig und erhebt somit keine MwSt. Bei länger als einen Monat dauernden Lehrgängen ist die Zahlung des Teilnehmerbeitrages in mehreren Raten möglich (pro rata temporis).