

# MWS3-6 - MOC 20745 - IMPLEMENTING A SOFTWARE-DEFINED DATACENTER

Categoria: **Windows Server 2016**

## INFORMAZIONI SUL CORSO



**Durata:**  
5 Giorni



**Categoria:**  
Windows Server 2016



**Qualifica Istruttore:**  
Microsoft Certified  
Trainer



**Dedicato a:**  
Professionista IT



**Produttore:**  
Microsoft

## OBIETTIVI

After completing this course, students will be able to:

- Explain the different virtualization options.
- Install and manage Hyper-V on Windows Server 2016.
- Install and configure System Center 2016 Virtual Machine Manager.
- Manage storage fabric and fabric updates.
- Configure and manage the Virtual Machine Manager library and library objects.
- Manage the networking fabric.
- Create and manage virtual machines by using Virtual Machine Manager.
- Manage clouds in Virtual Machine Manager.
- Manage services in Virtual Machine Manager.
- Monitor a virtualization infrastructure by using System Center Operations Manager.
- Implement and manage Hyper-V Replica and Azure Site Recovery.
- Protect virtualization infrastructure by using Data Protection Manager.

## PREREQUISITI

Students who attend this training should already have the following technical knowledge:

- An understanding of TCP/IP and networking concepts
- An understanding of different storage technologies and concepts
- Familiarity with different types of virtualizations
- Familiarity with Windows Server and Windows Server administration
- An understanding of Windows PowerShell

Students who attend this training can meet the prerequisites by attending the following courses, or obtaining equivalent knowledge and skills:

- 20740 - Storage & Compute with Windows Server 2016
- 20741 - Networking with Windows Server 2016

## CONTENUTI

**Module 1: Introduction to server virtualization**

- Overview of Microsoft Virtualization
- Introduction to the software-defined datacenter
- Extending virtualization to the cloud

#### **Lab: Evaluating virtualization options**

- Selecting the appropriate virtualization method
- Creating Azure virtual machines

#### **Module 2: Overview of Hyper-V virtualization**

- Installing and configuring the Hyper-V role
- Creating and managing virtual hard disks and virtual machines
- Creating and using Hyper-V virtual switches
- Implementing failover clustering with Hyper-V

#### **Lab: Creating and managing virtual hard disks and virtual machines**

- Installing and configuring the Hyper-V server role
- Creating a Nano Server virtual machine
- Configuring virtual machines and virtual hard disks

#### **Lab: Implementing failover clustering with Hyper-V**

- Creating a Hyper-V failover cluster
- Managing a Hyper-V failover cluster

#### **Module 3: Installing and configuring System Center 2016 Virtual Machine Manager**

- Overview of System Center 2016 VMM
- Installing System Center 2016 VMM
- Adding hosts and managing host groups

#### **Lab: Installing and configuring System Center 2016**

- Installing and configuring System Center 2016
- Managing hosts and host groups
- Managing an Azure subscription by using VMM

#### **Module 4: Managing storage fabric and fabric updates**

- Overview of server virtualization storage technologies
- Managing storage fabric
- Managing fabric updates

#### **Lab: Managing storage fabric and fabric updates**

- Implementing a storage infrastructure
- Creating a file server cluster and a storage QoS policy
- Managing fabric updates

#### **Module 5: Configuring and managing the Virtual Machine Manager library and library objects**

- Overview of the VMM library
- Preparing Windows for deployment in VMM
- Working with profiles
- Working with virtual machine templates

#### **Lab: Configuring and managing VMM library and library objects**

- Configuring and managing a VMM library
- Creating a Windows image for the VMM library
- Creating and managing profiles and templates

#### **Module 6: Managing the networking fabric**

- Networking concepts in VMM
- Managing Software-Defined Networking
- Understanding network function virtualization

#### **Lab: Creating and configuring the networking fabric**

- Associating virtual network adapters of Hyper-V hosts
- Deploying Network Controller

#### **Lab: Configuring and testing Hyper-V Network Virtualization**

- Configuring Hyper-V Network Virtualization
- Provisioning and testing tenant virtual machine networks

#### **Module 7: Creating and managing virtual machines by using Virtual Machine Manager**

- Virtual machine management tasks
- Creating, cloning, and converting virtual machines

#### **Lab: Creating and managing virtual machines by using System Center 2016 VMM**

- Creating a virtual machine and modifying its properties
- Creating and managing checkpoints
- Cloning and migrating a virtual machine

#### **Module 8: Managing clouds in System Center 2016 Virtual Machine Manager**

- Introduction to clouds
- Creating and managing a cloud
- Creating user roles in VMM

#### **Lab: Managing clouds in System Center 2016 VMM**

- Creating a private cloud
- Creating user roles

#### **Module 9: Managing services in Virtual Machine Manager**

- Overview of services in VMM
- Creating and managing services in VMM

#### **Lab: Managing services in VMM**

- Creating a service template
- Deploying a service and updating service template
- Scaling out service and updating the service

#### **Module 10: Monitoring a virtualization infrastructure by using System Center Operations Manager**

- Operations Manager architecture and security
- Using Operations Manager for monitoring and reporting
- Integrating Operations Manager with VMM and DPM

#### **Lab: Monitoring a virtualization infrastructure by using Operations Manager**

- Implementing the Operations Manager agents
- Integrating Operations Manager with VMM

#### **Module 11: Implementing and managing Hyper-V Replica and Azure Site Recovery**

- Implementing and managing Hyper-V Replica
- Implementing and managing Azure Site Recovery

#### **Lab: Implementing and managing Hyper-V Replica and Azure Site Recovery**

- Configuring and Managing Hyper-V Replica
- Configuring and Managing Azure Site Recovery

#### **Module 12: Protecting a virtualization infrastructure by using Data Protection Manager**

- Overview of backup and restore options for virtual machines
- Configuring and managing DPM for virtualization infrastructure protection

#### **Lab: Protecting virtualization infrastructure by using DPM**

- Configuring a DPM server and installing DPM protection agents
- Creating and configuring protection groups
- Recovering VMs and other data
- Providing online protection with DPM

## INFO

**Materiale didattico:** Materiale didattico in formato digitale

**Costo materiale didattico:** incluso nel prezzo del corso a Calendario

**Natura del corso:** Operativo (previsti lab su PC)