



Upgrading Your Skills to MCSA: Windows Server 2016 MCSA (Update)

DURATION: 5 DAYS

COURSE CODE: M20743

FORMAT: LECTURE/LAB

WHY FIREFLY

Firefly is trusted by customers, technology vendors and channel partners around the world to deliver highly effective, immersive educational experiences. Our innovative, role-based Microsoft training covers all of the latest certifications, from Azure to Server 2016 to SQL to the modern desktop, and is designed engineers the skills they need to remain relevant in today's multcloud world.

PREREQUISITES

Two or more years of experience with deploying and managing Windows Server 2012 or Windows Server 2008 environments; NS experience with day-to-day Windows Server 2012 or Windows Server 2008 system-administration management and maintenance tasks

Experience with Windows networking technologies and implementation

Experience with Active Directory technologies and implementation

Experience with Windows Server virtualization technologies and implementation

Knowledge equivalent to the MCSA credentials of Windows Server 2008 or Windows Server 2012

WHO SHOULD ATTEND

This course is for IT professionals who are experienced Windows Server 2012 or Windows Server 2008 system administrators, with real-world experience working in a Windows Server 2008 R2 or Windows Server 2008 enterprise environment. Additionally, students should have obtained the MCSA credential for Windows Server 2008 or Windows Server 2012, or they should have equivalent knowledge.

Additionally, IT professionals who plan to take the Microsoft Certified Solutions Expert (MCSE) exams might be interested in this course, as preparation for the MCSA exams, which are a prerequisite for the MCSE specialties.

LEARNING OBJECTIVES

Install and configure Windows Server 2016

Describe storage in Windows Server 2016

Implement directory services

Implement Active Directory Federation Services (AD FS)

Describe networking

Implement Hyper-V

Configure advanced networking features

Implement software-defined networking

Implement remote access

Deploy and manage Windows and Hyper-V containers

Implement failover clustering

Implement failover clustering by using virtual machines

Deploying and Configuring Infrastructure

DESCRIPTION

This five-day, instructor-led course explains how to implement and configure new Windows Server 2016 features and functionality. This course is for information technology (IT) professionals who want to upgrade their technical skills from Windows Server 2008 or Windows Server 2012 to Windows Server 2016. This course presumes a high level of knowledge about previous Windows Server technologies and skills equivalent to the Microsoft Certified Solutions Associate (MCSA): Windows Server 2008 or Windows Server 2012 credential.

COURSE OUTLINE

1. Installing and configuring Windows Server 2016

This module explains how to install and perform post-installation configuration of Windows Server 2016 servers.

Introducing Windows Server 2016

Installing Windows Server 2016

Configuring Windows Server 2016

Preparing for upgrades and migrations

Migrating server roles and workloads

Windows Server activation models

Lab : Installing and configuring Server Core

Installing Server Core

Completing post-installation tasks on Windows Server 2016 Core

Performing remote management

2. Overview of storage in Windows Server 2016

This module explains how to configure storage in Windows Server 2016.

Overview of storage in Windows Server 2016

Implementing Data Deduplication

Configuring iSCSI storage

Configuring the Storage Spaces feature in Windows Server 2016

Lab : Implementing and managing storage

Implementing File Server Resource Manager (FSRM)

Implementing Data Deduplication

Configuring iSCSI storage

3. Implementing directory services

This module explains how to implement the Directory Services feature.

Deploying Active Directory domain controllers

Implementing service accounts

Azure AD

Lab : Implementing and managing AD DS

Cloning a domain controller

Implementing service accounts

4. Implementing AD FS

This module explains how to implement an AD FS deployment.

Overview of AD FS

Deploying AD FS

Implementing AD FS for a single organization

Implementing Web Application Proxy

Implementing SSO with Microsoft online services

Lab : Implementing AD FS

Installing and configuring AD FS

Configuring an internal application for AD FS

Lab : Implementing Web Application Proxy

Implementing Web Application Proxy

5. Implementing network services

This module explains how to configure advanced features for Dynamic Host Configuration Protocol (DHCP) and configure IP Address Management (IPAM).

Overview of networking enhancements

Implementing IPAM

Managing IP address spaces with IPAM

Lab : Implementing network services

Configuring DNS policies

Configuring DHCP failover

Configuring IPAM

6. Implementing Hyper-V

This module explains how to install and configure Hyper-V virtual machines.

Configuring the Hyper-V role in Windows Server 2016

Configuring Hyper-V storage

Configuring Hyper-V networking

Configuring Hyper-V virtual machines

Lab : Implementing server virtualization with Hyper-V

Installing the Hyper-V server role

Configuring virtual networking

Creating and configuring a virtual machine

COURSE OUTLINE

7. Configuring advanced networking features

This module explains how to implement an advanced networking infrastructure.

Overview of high-performance networking features

Configuring advanced Hyper-V networking features

Lab : Configuring advanced Hyper-V networking features

Creating and using Hyper-V virtual switches

Configuring and using the advanced features of a virtual switch

8. Implementing Software Defined Networking

This module explains how to implement software-defined networking.

Overview of SDN

Implementing network virtualization

Implementing Network Controller

Lab : Deploying Network Controller

Preparing to deploy Network Controller

Deploying Network Controller

9. Implementing remote access

This module explains how to configure connectivity for remote users by using the DirectAccess feature.

Remote access overview

Implementing DirectAccess

Implementing VPN

Lab : Implementing DirectAccess

Configuring DirectAccess using the Getting Started Wizard

Testing DirectAccess

10. Deploying and managing Windows and Hyper-V containers

This module provides an overview of Windows Server 2016 containers. Additionally, it explains how to deploy, install, configure, and manage containers in Windows Server 2016.

Overview of containers in Windows Server 2016

Preparing for containers

Installing, configuring, and managing containers by using Docker

Lab : Installing and configuring containers

Installing Docker Enterprise Edition for Windows Server 2016

Installing and configuring an IIS container

11. Implementing failover clustering

This module explains how to implement failover clustering to provide high availability for network services and applications.

Overview of failover clustering

Implementing a failover cluster

Configuring highly available applications and services on a failover cluster

Maintaining a failover cluster

Implementing a stretch cluster

Lab : Implementing failover clustering

Configuring iSCSI storage

Configuring a failover cluster

Deploying and configuring a highly available file server

Validating the deployment of a highly available file server

Configuring CAU on the failover cluster

12. Implementing failover clustering with Windows Server 2016 Hyper-V

This module explains how to deploy and manage Hyper-V virtual machines in a failover cluster.

Overview of the integration of Hyper-V Server 2016 with failover clustering

Implementing Hyper-V virtual machines on failover clusters

Implementing Windows Server 2016 Hyper-V virtual machine migration

Implementing Hyper-V Replica

Lab : Implementing failover clustering with Windows Server 2016 Hyper-V

The Hyper-V Failover clustering testing environment

Configuring Hyper-V Replica

Configuring a failover cluster for Hyper-V

Configuring a highly available virtual machine