

Introduction:

The MCSA: Windows Server 2016 Certification Course is an intermediate-level training designed to equip candidates with the skills necessary to manage and monitor the Windows Server 2016 operating system, client-server structure, network infrastructure, virtualization, domain management, and security implementation.

This MCSA training course is tailored for network administrators, computer network specialists, support specialists, and Windows Server administrators who want to expand their expertise in the Microsoft technology stack and pursue a career in IT infrastructure management.

The Microsoft Certified Systems Administrator (MCSA) certification validates your technical proficiency, making it a valuable credential for professionals looking to advance their career in the IT field. This course prepares participants to manage and troubleshoot network environments based on Windows Server 2016.

Targeted Groups:

- Network administrators
- Computer network specialists
- Computer support specialists
- Windows server administrators

Course Objectives:

At the end of this MCSA training course, participants will be able to:

- Plan and prepare a strategy for server upgrade or migration.
- Install and configure Server Core installation, Nano Server, and other essential server infrastructure components.
- Understand and manage different storage options including disks, partition tables, virtual hard disks, and file systems.
- Implement and manage enterprise storage solutions, ensuring the most suitable solutions are applied.
- Confidently apply and maintain Data Deduplication and Storage Spaces.

- Install and configure Microsoft Hyper-V, understanding virtualization's pivotal role in server environments.
- Manage Windows and Hyper-V containers for agile software deployment.
- Implement disaster recovery and high availability procedures for Windows Server 2016.
- Plan and manage failover clustering for service availability and business continuity.
- Configure and manage Network Load Balancing (NLB) to maintain application performance and availability.
- Manage virtual machine installations, meeting the demands of a scalable virtualized infrastructure.

Targeted Competencies:

- Implementing and troubleshooting an IPv4 network.
- Configuring and evaluating IPv6 transition technologies.
- Integrating DNS with Active Directory.
- Configuring advanced DNS settings.
- Implementing branch cache for network efficiency.
- Configuring advanced Hyper-V networking features.

Course Content:

Unit 1: Planning and Implementing an IPv4 Network

- Planning IPv4 addressing.
- Configuring IPv4 hosts.
- Managing and troubleshooting IPv4 network connectivity.

Unit 2: Implementing DHCP

- Overview of the DHCP server role.
- Deploying and configuring DHCP.
- Managing and troubleshooting DHCP issues.

Unit 3: Implementing IPv6

- Overview of IPv6 addressing.
- Configuring an IPv6 host.
- Implementing IPv6 and IPv4 coexistence.
- Transitioning from IPv4 to IPv6.

Unit 4: Implementing DNS

- Configuring DNS zones.
- Configuring name resolution between DNS zones.
- Integrating DNS with Active Directory Domain Services (AD DS).
- Configuring advanced DNS settings.

Unit 5: Implementing and Managing IPAM

- Overview of IPAM (IP Address Management).
- Deploying IPAM.
- Managing IP address spaces using IPAM.

Unit 6: Remote Access in Windows Server 2016

- Overview of remote access.
- Implementing web application proxy.

Unit 7: Implementing Direct Access

- Overview of DirectAccess.
- Using the Getting Started Wizard for DirectAccess.
- Managing an advanced DirectAccess infrastructure.

Unit 8: Implementing VPNs

- Planning and configuring VPNs.

Unit 9: Implementing Networking for Branch Offices

- Networking features for branch offices.
- Implementing Distributed File System (DFS) for branch offices.
- Using branch cache for branch office efficiency.

Unit 10: Configuring Advanced Networking Features

- Overview of high-performance networking features.
- Configuring advanced Hyper-V networking features.

Unit 11: Implementing Software-Defined Networking (SDN)

- Overview of SDN.
- Implementing network virtualization.
- Implementing a network controller for SDN management.

This MCSA Windows Server 2016 course provides participants with expert instruction, hands-on labs, and a clear path to certification. It prepares professionals for the Microsoft MCSA certification, equipping them with the necessary practical skills to tackle real-world IT challenges effectively.