Introduction

The **MCSA: Windows Server 2016** training course is designed to help candidates build the skills needed to manage and troubleshoot Windows Server 2016 environments. This intermediate-level certification is tailored for network administrators, support specialists, and Windows Server administrators aiming to improve their expertise in IT infrastructure management. The course covers a range of topics such as client-server structure, network infrastructure, virtualization, domain management, and security implementation, all crucial for excelling in the role of an IT professional working with Microsoft's technology stack.

The course is ideal for those looking to validate their technical skills and pursue the **Microsoft Certified Systems Administrator (MCSA)** certification, a recognized credential that enhances one's career prospects in IT infrastructure management.

Targeted Groups

- **Network Administrators**
- **Computer Network Specialists**
- **Computer Support Specialists**
- **Windows Server Administrators**

Microsoft MCSA Certification Training

For those seeking an MCSA certification, this **Windows Server 2016** training provides expert guidance, hands-on labs, and a structured approach to preparing for the exams. It equips you with practical experience and knowledge, enabling you to handle real-world IT challenges effectively.

Course Objectives

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

- **Plan and prepare** for server upgrades or migrations.
- Install and manage **Server Core installation** and **Nano Server**.
- Manage **storage solutions** including disks, partitions, virtual hard disks, and storage spaces.
- Implement **disaster recovery** and **high availability** procedures in Windows Server 2016.
- Configure and manage **Hyper-V** and **virtual machine** deployments.
- Apply **failover clustering** and **Network Load Balancing (NLB)** to ensure business continuity.
- Configure, monitor, and manage virtualized infrastructure using **Hyper-V** containers.

Targeted Competencies

Upon completing this course, participants will have developed the following competencies:

- Implementing and troubleshooting **IPv4** networks.
- Configuring and evaluating **IPv6** transition technologies.
- Integrating **DNS** with **Active Directory**.
- Implementing **branch cache** and **advanced DNS settings**.
- Managing **advanced Hyper-V networking** features.

Course Content

Unit 1: Planning and Implementing an IPv4 Network

- Planning and configuring IPv4 addressing.
- Managing and troubleshooting IPv4 network connectivity.

Unit 2: Implementing DHCP

- Overview of the **DHCP server role**.
- Deploying and managing DHCP servers.
- Troubleshooting DHCP issues.

Unit 3: Implementing IPv6

- Understanding IPv6 addressing.
- Configuring IPv6 hosts and transitioning from IPv4 to IPv6.

Unit 4: Implementing DNS

- Configuring DNS zones and name resolution.
- Integrating DNS with **Active Directory Domain Services (AD DS)**.
- Implementing advanced DNS configurations.

Unit 5: Implementing and Managing IPAM

- Overview of **IPAM (IP Address Management)**.
- Deploying and managing IP address spaces using IPAM.

Unit 6: Remote Access in Windows Server 2016

- Overview of **remote access** technologies.
- Implementing **web application proxies**.

Unit 7: Implementing Direct Access

- Introduction to **DirectAccess**.
- Configuring and managing DirectAccess for remote users.

Unit 8: Implementing VPNs

- Planning and implementing **Virtual Private Networks (VPNs)** for secure connections.

Unit 9: Implementing Networking for Branch Offices

- Networking strategies for branch offices.
- Implementing **Distributed File System (DFS)** and **branch cache** for branch

office environments.

Unit 10: Configuring Advanced Networking Features

- High-performance networking features.
- Configuring advanced **Hyper-V networking** settings.

Unit 11: Implementing Software-Defined Networking (SDN)

- Overview and implementation of **Software-Defined Networking (SDN)**.
- Network virtualization and the **network controller**.

This course provides participants with the comprehensive knowledge necessary to manage Windows Server 2016 environments effectively and prepare for the **MCSA certification exams**, ensuring they are ready for the demands of modern IT infrastructure management.