

MCSE 2012-MCSA 2012

Installing And Configuring Windows Server 2012 (70-410)

Course Outline

Module 1: Deploying and Managing Windows Server 2012

This module introduces the new Windows Server 2012 administrative interface. This module covers the different roles and features that are available with the Windows Server 2012 operating system. It also discusses the various installation and configuration options you can use when deploying and configuring Windows Server 2012.

Lessons

- Windows Server 2012 Overview
- Overview of Windows Server 2012 Core.
- Post-Installation Configuration of Windows Server 2012
- Introduction to Windows PowerShell

Lab : Deploying and Managing Windows Server 2012

- Deploying Windows Server 2012
 - Configuring Server-name, IP addressing, Remote Desktop etc.
- Deploying Windows Server 2012 Core
 - Upgrading to Full Version of GUI
 - Configuring With Minimal Features
 - Demoting a Full Version to Server Core
 - Configuring and Administrating a Server Core Using Power Shell.
 - Assigning IP via Scripting or Aliases Like NetSh different Indexing.
 - Config a Baseline Snap-shot for Hyper-V
- Using Windows PowerShell to Manage Servers

- Adding a Feature Like Desktop Experience From GUI and PS

Module 2: Introduction to Active Directory Domain Services

This module introduces Active Directory Domain Services (AD DS) in Windows Server 2012. It covers general AD DS infrastructure including forests, trees, schema, Global Catalog, and Operations Masters. It also covers installing and configuring domain controllers.

Lessons

- Overview of AD DS
- Overview of Domain and Domain Controllers
- Kerberos and LDAP

Lab : Installing Domain Controllers

- Enabling the Role AD DS
 - Installing the Active Directory
 - Creating and Deleting Objects in Active Directory
 - Managing User Accounts
- Promoting a Domain Controller by Using **IFM**
 - Creating an IFM using NTDSUtil
 - Demotion of a Domain Controller

Module 3: Managing Active Directory Domain Services Objects

This module covers configuring Active Directory objects such as users, groups and computers. The functionality of AD DS administrative tools is addressed, in addition to the configuration of user profiles and the process of delegating permissions to perform AD DS administration.

Lessons

- Creating and Managing User, Group and Computer Accounts
- **Delegating** Administrative Tasks.

- Planning an AD Upgrade from 2008 to 2012

Lab : Managing Active Directory Domain Services Objects

- Delegating Administration for a Branch Office
- Creating and Configuring User Accounts in Active Directory
- **Pre-Staging** Computer Objects in AD DS
- **Set** the Functional Level for an Upgrade using ForestPrep.

Module 4: Automating Active Directory Domain Services Administration

This module covers using command-line tools to configure and administer AD DS. It introduces using Windows PowerShell cmdlets for AD DS administration, and using Windows PowerShell to perform bulk AD DS administrative operations.

Lessons

- Using Command-line Tools for AD DS Administration
- Using Windows PowerShell for AD DS Administration
- Performing Bulk Operations with Windows PowerShell

Lab : Automating AD DS Administration by Using Windows PowerShell

- Creating User Accounts and Groups by Using Windows PowerShell
 - Verifying the User's SID using the AD Service Interface Editor.
 - Managing and Filtering User Accounts Using AD Administrative Center
- Copying an Account as a Template to create Multiple Account
- Using Windows PowerShell to Create User Accounts in Bulk
- Using Windows PowerShell to Modify User Accounts in Bulk

Module 5: Implementing IPv4

This module covers Internet Protocol Version 4 (IPv4) addressing. It details the various IPv4 components, covers subnetting and supernetting, and discusses configuring and general troubleshooting of IPv4 addresses.

Lessons

- Overview of TCP/IP
- Understanding IPv4 Addressing
- Subnetting and Supernetting
- Configuring and Troubleshooting IPv4

Lab : Implementing IPv4

- Troubleshooting IPv4
- Implementing a Subnetted Environment

After completing this module, students will be able to:

- Describe IPv4 addressing.
- Determine a subnet mask necessary for subnetting or supernetting.
- Configure IPv4 and troubleshoot IPv4 communication.

Module 6: Implementing Dynamic Host Configuration Protocol

This module covers the installation and configuration of DHCP in addition to managing a DHCP database. It also covers security and monitoring of DHCP, including auditing and logging.

Lessons

- Describe the Role of DHCP Server in the Network Infrastructure
- Describe the DHCP Scopes and DHCP Database
- Securing and Monitoring DHCP

Lab : Implementing DHCP

- Installing and Implementing DHCP Server Role.

- Implementing a DHCP Relay Agent (Optional Exercise)

After completing this module, students will be able to:

- Install and configure the DHCP server role.
- Secure and monitor the DHCP server role.

Module 7: Implementing Domain Name System

This module covers name resolution for Windows Server and clients. It details the installation of a Domain Name System (DNS) server and configuring Active Directory Integrated DNS zones.

Lessons

- Overview of the Name Resolution
- Installing and configuring DNS Server Role
- Managing DNS Zones

Lab : Implementing DNS

- Installing and Configuring DNS
- Creating different Resource Records in DNS
- Managing the DNS Server Cache

After completing this module, students will be able to:

- Install and manage DNS Server in the Network Infrastructure.
- Manage DNS zones.

Module 8: Implementing IPv6

This module covers understanding and implementing IPv6 addressing. It covers configuration and troubleshooting as well as co-existence with IPv4 using transition technologies.

Lessons

- Overview of IPv6
- Describe Different type of IPv6 Addressing
- Coexistence with IPv6

Lab : Implementing IPv6

- Configuring an IPv6 Network
- Troubleshoot IPV6 Addressing

After completing this module, students will be able to:

- Describe the features and benefits of IPv6.

Module 9: Implementing Local Storage

This module covers the storage configuration options for Windows Server 2012, including managing disks and volumes and implementing file systems. It also covers creating and managing storage pools.

Lessons

- Overview of Storage
- Managing Disks and Volumes
- Implementing Storage Spaces

Lab : Implementing Local Storage

- Installing and Configuring a New Disk
- Resizing Volumes
- Configuring a **Redundant Storage** Space

After completing this module, students will be able to:

- Explain how to manage disks and volumes.

Module 10: Implementing File and Print Services

This module covers securing files, folders and network file shares, in addition to using shadow copies to protect network file shares. It also covers configuring network printing and creating a printer pool.

Lessons

- Securing Files and Folders
- Protecting Shared Files and Folders by Using **Shadow Copies**
- Configuring Network Printing

Lab : Implementing File and Print Services

- Creating and Configuring a File Share
- Configuring **Shadow Copies**

After completing this module, students will be able to:

- Protect shared files and folders by using shadow copies.

Module 11: Implementing Group Policy

This module covers using Group Policy to centrally manage and apply configuration settings.

Lessons

- Overview of Group Policy
- Group Policy Processing
- Implementing a Central Store for Administrative Templates

Lab : Implementing Group Policy

- Configuring a Central Store
- Creating GPOs

After completing this module, students will be able to:

- Create and manage Group Policy Objects.
- Implement a central store for administrative templates.

Module 12: Securing Windows Servers Using Group Policy Objects

Increase security in a Windows Server 2012 infrastructure by using Group Policy Objects, AppLocker, and Windows Firewall.

Lessons

- Overview of Using GPO's for Security Settings
- Restricting Software
- Configuring Windows Firewall with Advanced Security

Lab : Lab A: Increasing Security for Server Resources

- Using Group Policy to Secure Member Servers
- Auditing File System Access
- Auditing Domain Logons

Lab : Lab B: Configuring AppLocker and Windows Firewall

- Configuring AppLocker Policies
- Configuring Windows Firewall

After completing this module, students will be able to:

- Describe Windows Server operating system Security.
- Configure security settings by using Group Policy.
- Restrict unauthorized software from running on servers and clients.
- Configure Windows Firewall with Advanced Security.

Module 13: Implementing Server Virtualization with Hyper-V

This module describes Microsoft Virtualization technologies. It covers installing and configuring Hyper-V virtual machines, configuring virtual storage, and configuring virtual networks.

Lessons

- Overview of Virtualization Technologies
- Implementing Hyper-V
- Managing Virtual Machine Storage
- Managing Virtual Networks

Lab : Implementing Server Virtualization with Hyper-V

- Installing the Hyper V Role onto a Server
- Configuring Virtual Networking
- Creating and Configuring a Virtual Machine

After completing this module, students will be able to:

- Describe virtualization technologies.
- Manage virtual machine storage.
- Manage virtual networks.