

Designing and Implementing a Server Infrastructure - MOC On Demand (MS-20413)

Modality: On Demand

Duration: 2 Days

SATV Value: 2

About this course:

This Official On-Demand course of Microsoft is available for 90 days from the course demand date if you have a yearly membership, or buy the course separately. The access of the course will terminate when 90 days completed of course enrollment.

Get hands-on guidance and practice designing, planning, and deploying a logical and physical Windows Server® 2012 R2 enterprise framework in this course. This course covers the skills and information expected to give an enterprise solution that helps the installations of automated and manual servers in a virtual and physical condition including the supporting file and storage services. Also, you will gain proficiency with the aptitudes important to give networking solutions of the enterprise, for example, VPN, IPAM, DHCP, and DirectAccess. You will likewise gain proficiency with the abilities important to plan and apply a domain and forest foundation including multi-domain or forest and the scenarios of the branch office. This course is the preferred decision for hands-on training for Exam 413 of Microsoft Certified Solutions Expert (MCSE): Designing and Implementing and Server Infrastructure, which is the fourth of five tests required for the Server Infrastructure certification of MCSE.

The normal pay for a Windows Server Administrator is \$55,929 every year.

Course Objective:

- Plan server migration and upgrade.
- Design and deploy servers by utilizing System Center 2012 R2 Virtual Machine Manager (VMM).
- Plan and implement a strategy for server deployment.
- Design and execute an AD DS forest and domain infrastructure.
- Design and keep up an address management solution and IP configuration.
- Design and apply the name resolution.
- Design and apply a Group Policy Object (GPO) strategy.
- Plan and execute storage and file services.
- Plan and implement an infrastructure of the AD DS organizational unit (OU).
- Design and execute remote access services.
- Plan and implement the physical topology of AD DS.
- Design and apply network protection.

Audience:

This course is designed for:

IT experts who are liable for planning, designing, and deploying a logical and physical Windows Server 2012 enterprise Active Directory® Domain Services (AD DS) framework including the network administrations essential. They have an understanding of past Windows Server working frameworks and have Windows Server 2012 credential MS Certified Solutions Associate (MCSA) or proportional abilities.

Prerequisites:

- A decent comprehension of Transmission Control Protocol/Internet Protocol (TCP/IP) basics and the concepts of networking.
- Decent working information on both Active Directory® Domain Services (AD DS) and Windows Server 2012 R2. For instance, domain vs. local user accounts, domain user accounts, profiles of user, and group membership.
- A decent comprehension of both batch and scripts files.
- Strong comprehension of security ideas, for example, authorization and authentication.
- Awareness of packaging, deployment, and imaging apparatuses.
- Capacity to work in a group/virtual group.
- Capacity to deliver the best documentation and have the proper relational abilities to make a proposal and make the recommendations for the budget.
- Information is comparable to Windows 2012 R2 MCSA.

Suggested prerequisites courses:

Administering Windows Server 2012 R2 -- 70-411

Configuring Advanced Windows Server 2012 R2 Services -- 70-412

Course Outline:

Module 1: Planning Server Upgrade and Migration

This module explains how to plan a server upgrade and migration strategy.

Lessons

- Considerations for Upgrades and Migrations
- Creating a Server Upgrade and Migration Plan
- Planning for Virtualization

Lab : Planning a Server Upgrade and Migration

After completing this module, students will be able to:

- Describe the factors to consider when performing a server upgrade and migration.
- Create a plan for a server upgrade and migration.
- Plan for server virtualization.

Module 2: Planning and Implementing a Server Deployment Strategy

This module explains how to design an automated server installation strategy and plan and implement a server deployment infrastructure.

Lessons

- Selecting an Appropriate Server Deployment Strategy
- Implementing an Automated Deployment Strategy

Lab : Planning and Implementing a Server Deployment Infrastructure

After completing this module, students will be able to:

- Select an appropriate server deployment strategy.
- Implement an automated deployment strategy.

Module 3: Planning and Deploying Servers Using Virtual Machine Manager

This module explains how to plan and deploy a Virtual Machine Manager (VMM) infrastructure for deploying servers.

Lessons

- System Center 2012 R2 Virtual Machine Manager Overview
- Implementing a Virtual Machine Manager Library and Profiles
- Planning and Deploying Virtual Machine Manager Services

Lab : Planning and Deploying Virtual Machines by Using Virtual Machine Manager

After completing this module, students will be able to:

- Describe the core VMM architecture and components.
- Implement VMM libraries and profiles.
- Plan and deploy VMM services.

Module 4: Designing and Maintaining an IP Configuration and Address Management Solution

This module explains how to design and maintain IP address management (IPAM) and a Dynamic Host Configuration Protocol (DHCP) solution.

Lessons

- Designing DHCP Servers
- Planning DHCP Scopes
- Designing an IPAM Provisioning Strategy
- Managing Servers and Address Spaces by Using IPAM

Lab : Designing and Maintaining an IP Configuration and IP Address Management Solution

After completing this module, students will be able to:

- Design a DHCP server implementation.
- Plan DHCP scope configuration and options.
- Design an IPAM provisioning strategy.
- Manage servers and address spaces by using IPAM.

Module 5: Designing and Implementing Name Resolution

This module explains how to design a name resolution strategy.

Lessons

- Designing a DNS Server Implementation Strategy
- Designing the DNS Namespace
- Designing DNS Zones
- Designing DNS Zone Replication and Delegation
- Optimizing DNS Servers
- Designing DNS for High Availability and Security

Lab : Designing and Implementing Name Resolution

After completing this module, students will be able to:

- Design a Domain Name System (DNS) server-implementation strategy.
- Design a DNS namespace.
- Design and implement a DNS zone strategy.
- Design and configure DNS zone replication and delegation.
- Optimize the DNS server configuration.
- Design DNS for high availability and security.

Module 6: Designing and Implementing an Active Directory Domain Services Forest and Domain Infrastructure

This module explains how to design and implement an AD DS forest and domain infrastructure.

Lessons

- Designing an Active Directory Forest
- Designing and Implementing Active Directory Forest Trusts
- Designing Active Directory Integration with Windows Azure Active Directory
- Designing and Implementing Active Directory Domains
- Designing DNS Namespaces in Active Directory Environments
- Designing Active Directory Domain Trusts

Lab : Designing and Implementing an Active Directory Domain Services Forest Infrastructure

Lab : Designing and Implementing an Active Directory Domain Infrastructure

After completing this module, students will be able to:

- Design an Active Directory forest.
- Design and implement Active Directory forest trusts.
- Design Active Directory integration with Windows Azure Active Directory.
- Design and implement Active Directory domains.
- Design DNS namespaces in an Active Directory environment.
- Design and implement Active Directory domain trusts.

Module 7: Designing and Implementing an AD DS Organizational Unit Infrastructure

This module explains how to design and implement an OU infrastructure and an AD DS permissions model.

Lessons

- Planning the Active Directory Administrative Tasks Delegation Model
- Designing an OU Structure
- Designing and Implementing an AD DS Group Strategy

Lab : Designing and Implementing an Active Directory OU Infrastructure and Delegation Model

After completing this module, students will be able to:

- Plan an Active Directory administrative tasks delegation model.
- Design an OU structure.
- Design and implement an AD DS group strategy.

Module 8: Designing and Implementing a Group Policy Object Strategy

This module explains how to design and implement a Group Policy Object (GPO) strategy.

Lessons

- Collecting the Information Required for a GPO Design
- Designing and Implementing GPOs
- Designing GPO Processing
- Planning Group Policy Management

Lab : Designing and Implementing a Group Policy Object Strategy

After completing this module, students will be able to:

- Collect and analyze the information required to facilitate a GPO design.
- Create a GPO design and implement it.

- Create a GPO processing design.
- Plan GPO management.

Module 9: Designing and Implementing an AD DS Physical Topology

This module explains how to design an AD DS sites topology and a domain controller placement strategy.

Lessons

- Designing and Implementing Active Directory Sites
- Designing Active Directory Replication
- Designing the Placement of Domain Controllers
- Virtualization Considerations for Domain Controllers
- Designing Highly Available Domain Controllers

Lab : Designing and Implementing an Active Directory Domain Services Physical Topology

After completing this module, students will be able to:

- Design and implement Active Directory sites.
- Design and configure Active Directory replication.
- Design domain controller placement.
- Plan for virtualization of the domain controller role.
- Design domain controller deployments for high availability.

Module 10: Planning and Implementing Storage and File Services

This module explains how to plan and implement storage and file services.

Lessons

- Planning and Implementing iSCSI SANs
- Planning and Implementing Storage Spaces
- Optimizing File Services for Branch Offices

Lab : Planning and Implementing Storage

After completing this module, students will be able to:

- Plan and implement an Internet Small Computer System Interface (iSCSI) SAN.
- Plan and implement storage spaces.
- Optimize file services for branch offices.

Module 11: Designing and Implementing Network Protection

This module explains how to design and implement network protection.

Lessons

- Overview of Network Security Design
- Designing and Implementing a Windows Firewall Strategy
- Designing and Implementing a NAP Infrastructure

Lab : Designing and Implementing Network Protection

After completing this module, students will be able to:

- Describe the design process for network security.
- Design and implement a Windows Firewall strategy.
- Design and implement Network Access Protection (NAP).

Module 12: Designing and Implementing Remote Access Services

This module explains how to design and implement remote access services.

Lessons

- Planning and Implementing DirectAccess
- Planning and Implementing VPN
- Planning and Implementing Web Application Proxy
- Planning a Complex Remote Access Infrastructure

Lab : Designing and Implementing Network Access Services

After completing this module, students will be able to:

- Plan and implement DirectAccess.
- Plan and implement a virtual private network (VPN).
- Plan and implement a Web Application Proxy.
- Plan a complex remote access infrastructure.