

#20413: DESIGNING AND IMPLEMENTING A SERVER INFRASTRUCTURE

Available Dates: **Call for Dates**

Class Length: **5 day**

Cost: **\$2,495**

[Email Computer Visions about this class](#)

Class Outline:

Get hands-on instruction and practice planning, designing and deploying a physical and logical Windows Server 2012 R2 enterprise infrastructure in this 5-day Microsoft Official course. This course is part one in a series of two courses that provides the skills and knowledge necessary to design and implement a Windows Server 2012 R2 infrastructure in an enterprise environment. The two courses collectively cover designing, planning, deploying, securing, monitoring, automating, and virtualizing an enterprise server infrastructure. This course covers the knowledge and skills needed to provide an enterprise solution that supports manual and automated server installations in a physical and virtual environment including the supporting file and storage services. You will also learn the skills necessary to provide enterprise networking solutions such as DHCP, IPAM, VPN, and DirectAccess. You will also learn the skills necessary to design and implement a forest and domain infrastructure including multi domains/forest and branch office scenarios. This course maps directly to and is the preferred choice for hands-on preparation for Microsoft Certified Solutions Expert (MCSE): Exam 413: Designing and Implementing and Server Infrastructure, which is the fourth of five exams required for MCSE: Server Infrastructure certification.

NOTE: Labs in this course are based on Windows Server 2012 R2 and System Center 2012 R2. This course is designed for experienced IT professionals who support medium to large enterprises and have experience administering Windows Server 2012 R2 and have an MCSA: Windows Server 2012 certification or equivalent skills.

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

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

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

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

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

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

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

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

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

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

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

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