Windows Server 2012

AUTHORIZED MICROSOFT COURSES

20410 Installing and Configuring Windows Server 2012

20411 Administering Windows Server 2012

20412 Configuring Advanced Windows Server 2012 Services

20413 Designing and Implementing a Server Infrastructure

20414 Implementing an Advanced Server Infrastructure

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20410 Installing and Configuring Windows Server 2012

Overview: The course is part one of a series of three courses that provide the skills and knowledge necessary to implement a core Windows Server 2012 infrastructure in an existing enterprise environment.

Duration: 5.00 Days

Lesson 1: Deploying and Managing Windows Server 2012

- Windows Server 2012 Overview
- Overview of Windows Server 2012 Management
- Installing Windows Server 2012
- Post-Installation Configuration of Windows Server 2012
- Introduction to Windows PowerShell
- Lab : Deploying and Managing Windows Server 2012

Lesson 2: Introduction to Active Directory Domain Services

- Overview of AD DS
- Overview of Domain Controllers
- Installing a Domain Controller
- Lab : Installing Domain Controllers

Lesson 3: Managing Active Directory Domain Services Objects

- Managing User Accounts
- Managing Groups
- Managing Computer Accounts
- Delegating Administration
- Lab : Managing Active Directory Domain Services Objects

Lesson 4: Automating Active Directory Domain Services Administration

- Using Command-line Tools for Administration
- Using Windows PowerShell for Administration
- Performing Bulk Operations with Windows PowerShell
- Lab : Automating AD DS Administration by Using Windows PowerShell

Lesson 5: Implementing IPv4

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

Lesson 6: Implementing DHCP

- Installing a DHCP Server Role
- Configuring DHCP Scopes
- Managing a DHCP Database
- Securing and Monitoring DHCP
- Lab : Implementing DHCP

Lesson 7: Implementing DNS

- Name Resolution for Windows Client and Servers
- Installing and Managing a DNS Server
- Managing DNS Zones
- Lab : Implementing DNS

Lesson 8: Implementing IPv6

- Overview of IPv6
- IPv6 Addressing
- Coexistence with IPv6
- IPv6 Transition Technologies
- Lab : Implementing IPv6

Lesson 9: Implementing Local Storage

- Overview of Storage
- Managing Disks and Volumes
- Implementing Storage Pools
- Lab : Implementing Local Storage

Lesson 10: Implementing File and Print Services

- Securing Files and Folders
- Protecting File Shares with Shadow Copies
- Configuring Network Printing
- Lab : Implementing File and Print Services

Lesson 11: Implementing Group Policy

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

Lesson 12: Securing Windows Servers by Using Group Policy Objects

- Windows Security Overview
- Configuring Security Settings
- Restricting Software
- Configuring Windows Firewall with Advanced Security
- Lab : Lab A: Increasing Security for Server Resources
- Lab : Lab B: Configuring AppLocker and Windows Firewall

Lesson 13: Implementing Server Virtualization with Hyper-V

- Overview of Virtualization Technologies
- Implementing Hyper-V
- Managing Virtual Machine Storage
- Managing Virtual Networks
- Lab : Implementing Server Virtualization with Hyper-V

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20411 Administering Windows Server 2012

Overview: Students will learn the administration tasks necessary to maintain a Windows Server 2012 infrastructure, such as user and group management, network access and data security.

Duration: 5.00 Days

Lesson 1: Deploying and Maintaining Server Images

- Overview of Windows Deployment Services
- Implementing Deployment with Windows Deployment Services
- Administering Windows Deployment Services
- Lab : Using Windows Deployment Services to Deploy Windows Server 2012

Lesson 2: Configuring and Troubleshooting Domain Name System

- Installing the DNS Server Role
- Configuring the DNS Server Role
- Configuring DNS Zones
- Configuring DNS Zone Transfers
- Managing and Troubleshooting DNS
- Lab : Configuring and Troubleshooting DNS

Lesson 3: Maintaining Active Directory Domain Services

- Overview of AD DS
- Implementing Virtualized Domain Controllers
- Implementing RODC
- Administering AD DS
- Managing the AD DS Database
- Lab : Maintaining AD DS

Lesson 4: Managing User and Service Accounts

- Automating User Account Management
- Configuring Password-Policy and User-Account Lockout Settings
- Configuring Managed Service Accounts
- Lab : Managing User and Service Accounts

Lesson 5: Implementing a Group Policy Infrastructure

- Introducing Group Policy
- Implementing and Administering Group Policy Objects (GPOs)
- Group Policy Scope and Group Policy Processing
- Troubleshooting the Application of GPOs
- Lab : Implementing a Group Policy Infrastructure

Lesson 6: Managing User Desktops with Group Policy

- Implementing Administrative Templates
- Configuring Folder Redirection and Scripts
- Configuring Group Policy Preferences
- Managing Software with Group Policy
- Lab : Managing User Desktops with Group Policy

Lesson 7: Configuring and Troubleshooting Remote Access

- Configuring Network Access
- Configuring Virtual Private Network (VPN) Access
- Overview of Network Policies
- Troubleshooting Routing and Remote Access
- Configuring DirectAccess
- Lab : Configuring Remote Access
- Lab : Configuring DirectAccess

Lesson 8: Installing, Configuring, and Troubleshooting the Network Policy Server Role

- Installing and Configuring a NPS
- Configuring Remote Authentication Dial-In User Service (RADIUS) Clients and Servers
- NPS Authentication Methods
- Monitoring and Troubleshooting a NPS
- Lab : Installing and Configuring a Network Policy Server

Lesson 9: Implementing Network Access Protection

- Overview of Network Access Protection
- Overview of NAP Enforcement Processes
- Configuring NAP
- Monitoring and Troubleshooting NAP
- Lab : Implementing NAP

Lesson 10: Optimizing File Services

- Overview of FSRM
- Using FSRM to Manage Quotas, File Screens, and Storage Reports
- Implementing Classification and File Management Tasks
- Overview of Distributed File System (DFS)
- Configuring DFS Namespaces
- Configuring and Troubleshooting Distributed File System Replication (DFS-R)
- Lab : Configuring Quotas and File Screening Using FSRM
- Lab : Implementing DFS

Lesson 11: Configuring Encryption and Advanced Auditing

- Encrypting Files by Using Encrypting File System
- Configuring Advanced Auditing
- Lab : Configuring Encryption and Advanced Auditing

Lesson 12: Implementing Update Management

- Overview of WSUS
- Deploying Updates with WSUS
- Lab : Implementing Update Management

Lesson 13: Monitoring Windows Server 2012

- Monitoring Tools
- Using Performance Monitor
- Monitoring Event Logs
- Lab : Monitoring Windows Server 2012

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20412 Configuring Advanced Windows Server 2012 Services

Overview: Students will learn advanced configuration and services tasks necessary to deploy, manage and maintain Windows Server 2012 infrastructure, such as identity management, rights management, Federated services, network load balancing, and failover clustering.

Duration: 5.00 Days

Lesson 1: Implementing Advanced Network Services

- Configuring Advanced DHCP Features
- Configuring Advanced DNS Settings
- Implementing IP Address Management
- Lab : Implementing Advanced Network Services

Lesson 2: Implementing Advanced File Services

- Configuring iSCSI Storage
- Configuring Branch Cache
- Optimizing Storage Usage
- Lab : Implementing Advanced File Services

Lesson 3: Implementing Dynamic Access Control

- Overview of Dynamic Access Control
- Planning for a Dynamic Access Control Implementation
- Configuring Dynamic Access Control
- Lab : Implementing Dynamic Access Control

Lesson 4: Implementing Distributed Active Directory Domain Services Deployments

- Overview of Distributed AD DS Deployments
- Deploying a Distributed AD DS Environment
- Configuring AD DS Trusts
- Lab : Implementing Complex AD DS Deployments

Lesson 5: Implementing Active Directory Domain Services Sites and Replication

- Overview of AD DS Replication
- Configuring AD DS Sites
- Configuring and Monitoring AD DS Replication
- Lab : Implementing AD DS Sites and Replication

Lesson 6: Implementing Active Directory Certificate Services

- PKI Overview
- Deploying CAs
- Deploying and Configuring CA Hierarchy
- Deploying and Managing Certificate Templates
- Implementing Certificate Distribution and Revocation
- Managing Certificate Recovery
- Lab : Deploying and Managing Certificates

Lesson 7: Implementing Active Directory Rights Management Services

- AD RMS Overview
- Deploying and Managing an AD RMS Infrastructure
- Configuring AD RMS Content Protection
- Configuring External Access to AD RMS
- Lab : Implementing AD RMS

Lesson 8: Implementing Active Directory Federation Services

- Overview of AD FS
- Deploying AD FS
- Implementing AD FS for a Single Organization
- Deploying AD FS in a B2B Federation Scenario
- Lab : Implementing AD FS

Lesson 9: Implementing Network Load Balancing

- Overview of NLB
- Configuring an NLB Cluster
- Planning an NLB Implementation
- Lab : Implementing Network Load Balancing

Lesson 10: Implementing Failover Clustering

- Overview of Failover Clustering
- Implementing a Failover Cluster
- Configuring Highly Available Applications and Services on a Failover Cluster
- Maintaining a Failover Cluster
- Implementing a Multi-Site Failover Cluster
- Lab : Implementing Failover Clustering

Lesson 11: Implementing Failover Clustering with Hyper-V

- Overview of Integrating Hyper-V with Failover Clustering
- Implementing Hyper-V Virtual Machines on Failover Clusters
- Implementing Hyper-V Virtual Machine Movement
- Managing Hyper-V Virtual Environments by Using VMM
- Lab : Implementing Failover Clustering with Hyper-V

Lesson 12: Implementing Disaster Recovery

- Overview of Disaster Recovery
- Implementing Windows Server Backup
- Implementing Server and Data Recovery
- Lab : Implementing Windows Server Backup and Restore

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20413 Designing and Implementing a Server Infrastructure

Course Overview: This course provides students with the skills and knowledge needed to plan, design, and deploy a physical and logical Windows Server 2012 Active Directory Domain Services (AD DS) infrastructure.

Duration: 5.00 Days

Lesson 1: Planning Server Upgrade and Migration

- Upgrade and Migration Considerations
- Creating a Server Upgrade and Migration Plan
- Planning for Virtualization
- Lab : Planning Server Upgrade and Migration

Lesson 2: Planning and Implementing a Server Deployment Infrastructure

- Selecting an Appropriate Server Imaging Strategy
- Selecting a Deployment Automation Strategy
- Implementing an Automated Deployment Strategy
- Lab : Planning and Implementing a Server Deployment Infrastructure

Lesson 3: Designing and Maintaining an IP Configuration and Address Management Solution

- Designing and Implementing DHCP
- Planning and Implementing DHCP Scopes
- Planning and Implementing an IPAM Provisioning Strategy
- Lab : Designing and Maintaining an IP Configuration and IP Address Management Solution

Lesson 4: Designing and Implementing Name Resolution

- Designing a DNS Server Implementation Strategy
- Designing the DNS Namespace
- Designing and Implementing DNS Zones
- Designing and Configuring DNS Zone Replication and Delegation
- Optimizing DNS Servers
- Designing DNS for High Availability and Security
- Lab : Designing and Implementing Name Resolution

Lesson 5: Designing and Implementing an Active Directory Domain Services Forest and Domain Infrastructure

- Designing an AD DS Forest
- Designing and Implementing AD DS Forest Trusts
- Designing and Implementing AD DS Domains
- Designing DNS Namespaces in AD DS Environments
- Designing AD DS Domain Trusts
- Lab : Designing and Implementing an AD DS Forest Infrastructure
- Lab : Designing and Implementing an AD DS Domain Infrastructure

Lesson 6: Designing and Implementing an OU Infrastructure and AD DS Permissions Model

- Planning the AD DS Administrative Tasks Delegation Model
- Designing the OU Structure
- Designing and Implementing an AD DS Group Strategy
- Lab : Designing and Implementing an AD DS OU Infrastructure and AD DS Delegation Model

Lesson 7: Designing and Implementing a Group Policy Object Strategy

- Gathering the Information Required for a GPO Design
- Designing and Implementing GPOs
- Designing GPO Processing
- Planning Group Policy Management
- Lab : Designing and Implementing Group Policy Object Strategy

Lesson 8: Designing and Implementing an AD DS Physical Topology

- Designing and Implementing AD DS Sites
- Designing AD DS Replication
- Designing the Placement of Domain Controllers
- Virtualization Considerations for Domain Controllers
- Designing Highly-Available Domain Controllers
- Lab : Designing and Implementing an AD DS Physical Topology

Lesson 9: Planning and Implementing Storage

- Storage Considerations
- Planning and Implementing iSCSI SANs
- Lab : Planning and Implementing Storage

Lesson 10: Planning and Implementing File Services

- Planning and Implementing a Distributed File System
- Planning and Implementing BranchCache
- Planning and Implementing Dynamic Access Control
- Lab : Designing and Implementing File Services

Lesson 11: Designing and Implementing Network Access Services

- Designing and Implementing Remote Access Services
- Designing RADIUS Authentication by Using a Network Policy Server
- Designing a Perimeter Network
- Planning and Implementing DirectAccess
- Lab : Designing and Implementing Network Access Services

Lesson 12: Designing and Implementing Network Protection

- Overview of Network Security Design
- Identifying and Mitigating Common Network Security Threats
- Designing and Implementing a Windows Firewall Strategy
- Designing and Implementing a Network Access Protection Infrastructure
- Lab : Designing and Implementing Network Protection

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20414 Implementing an Advanced Server Infrastructure

Overview: In this course, students will learn how to plan and implement some of the more advanced features available in Windows Server 2012.

Duration: 5.00 Days

Lesson 1: Overview of Management in an Enterprise Data Center

- Overview of the Enterprise Data Center
- Overview of the Microsoft System Center 2012 Components
- Considerations for Implementing an Enterprise Data Center
- Lab : Considerations for Implementing an Enterprise Data Center

Lesson 2: Planning and Implementing a Server Virtualization Strategy

- Planning a VMM Deployment
- Planning and Implementing a Server Virtualization Host Environment
- Planning and Implementing a Network Infrastructure for Virtualization
- Lab : Planning and Implementing a Server Virtualization Strategy

Lesson 3: Planning and Implementing Networks and Storage for Virtualization

- Planning a Storage Infrastructure for Virtualization
- Implementing a Storage Infrastructure for Virtualization
- Planning and Implementing a Network Infrastructure for Virtualization
- Lab : Planning and Implementing Virtualization Networks and Storage

Lesson 4: Planning and Deploying Virtual Machines

- Planning Virtual Machine Configuration
- Preparing for Virtual Machine Deployments with VMM
- Deploying Virtual Machines
- Lab : Planning and Implementing a Virtual Machine Deployment and Management Strategy

Lesson 5: Planning and Implementing a Virtualization Administration Solution

- Planning and Implementing Automation with System Center 2012
- Planning and Implementing System Center 2012 Administration
- Planning and Implementing Self-Service Options in System Center 2012
- Lab : Planning and Implementing an Administration Solution for Virtualization

Lesson 6: Planning and Implementing a Server Monitoring Strategy

- Planning Monitoring in Windows Server 2012
- Overview of System Center Operations Manager
- Planning and Configuring Management Packs
- Planning and Configuration Notifications and Reporting
- Configuring Integration with VMM
- Lab : Implementing a Server Monitoring Strategy

Lesson 7: Planning and Implementing High Availability for File Services and Applications

- Planning and Implementing Storage Spaces
- Planning and Implementing Distributed File System (DFS)
- Planning and Implementing Network Load Balancing (NLB)
- Lab : Planning and Implementing High Availability for File Services and Applications

Lesson 8: Planning and Implementing a High Availability Infrastructure Using Failover Clustering

- Planning an Infrastructure for Failover Clustering
- Implementing Failover Clustering
- Integrating Failover Clustering with Server Virtualization
- Planning a Multisite Failover Cluster
- Lab : Planning and Implementing a High Availability Infrastructure by Using Failover Clustering

Lesson 9: Planning and Implementing Server Update Infrastructure

- Planning and Implementing a WSUS Deployment
- Planning Software Updates with System Center 2012 Configuration Manager
- Planning and Implementing Updates in a Server Virtualization Infrastructure
- Planning and Implementing Virtual Machine Backup and Recovery
- Lab : Planning and Implementing an Update Remediation Infrastructure

Lesson 10: Planning and Implementing a Business Continuity Strategy

- Planning and Implementing a Certification Authority Deployment
- Planning and Implementing Certificate Templates
- Planning and Implementing Certificate Distribution and Revocation
- Planning and Implementing Key Archival and Recovery
- Lab : Planning and Implementing an Active Directory Certificate Services (AD CS) Infrastructure

Lesson 11: Planning and Implementing an Public Key Infrastructure

- Planning and Implementing Deployment of a Certification Authority
- Planning and Implementing Certificate Templates
- Planning and Implementing Certificate Distribution and Revocation
- Planning and Implementing Key Archival and Recovery
- Lab : Planning and Implementing an AD CS Infrastructure

Lesson 12: Planning and Implementing an Identity Federation Infrastructure

- Planning and Implementing an Active Directory Federation Services (AD FS) Server Infrastructure
- Planning and Implementing AD FS Claims Providers and Relying Parties
- Planning and Implementing AD FS Claims and Claim Rules
- Lab : Planning and Implementing AD FS Infrastructure

Lesson 13: Planning and Implementing an Information Rights Management Infrastructure

- Planning and Implementing an AD RMS Cluster
- Planning and Implementing AD RMS Templates and Policies
- Planning and Implementing External Access to AD RMS Services
- Planning and Implementing AD RMS Integration with Dynamic Access Control (DAC)
- Lab : Planning and Implementing an AD RMS Infrastructure.

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