MOC 20411C: Administering Windows Server 2012

Course Overview

This course provides students with the knowledge and skills to administer Windows Server 2012.

Course Introduction

Module 01 - Configuring and Troubleshooting Domain Name System
Lesson 1: Configuring the DNS Server Role
Components of a DNS Solution
Demo - Installing the DNS Server Role
What Are DNS Queries?
What Are Root Hints?
What Is Forwarding?
How DNS Server Caching Works
Demo - Configuring the DNS Server Role
What Is DNS Round Robin?
Considerations for Deploying the DNS Server Role
Lesson 2: Configuring DNS Zones
DNS Resource Records
What Is a DNS Zone?
DNS Zone Types
What Are AD DS Integrated Zones?
Forward and Reverse Lookup Zones
Overview of Stub Zones
Demo - Creating Zones
DNS Zone Delegation
What Is Split DNS?
Lesson 3: Configuring DNS Zone Transfers
What Is a DNS Zone Transfer?
Configuring Zone Transfer Security
Demo - Configuring DNS Zone Transfers
Lesson 4: Managing and Troubleshooting DNS
TTL, Aging, and Scavenging
Demo - Managing DNS Records
Demo - Testing the DNS Server Configuration
Monitoring DNS by Using the DNS Event Log
Monitoring DNS by Using Debug Logging
Monitoring DNS with Windows PowerShell
Module 01 Review

Module 02 - Maintaining Active Directory Domain Services
Lesson 1: Overview of AD DS
Overview of AD DS Components
Understanding AD DS Forest and Schema Structure
Understanding AD DS Domain Structure
Extending the AD DS Deployment with Windows Azure Virtual Machines
Lesson 2: Implementing Virtualized Domain Controllers
Considerations for Virtual Domain Controller Deployment
How Checkpoints Affect Domain Controllers
Domain Controller Virtualization in Windows Server 2012
Domain Controller Cloning
Demo - Cloning Domain Controllers
Domain Controller Virtualization Best Practices
Lesson 3: Implementing RODCs
Considerations for Implementing RODCs
Managing Credential Caching on an RODC
Managing Local Administration for RODCs
Demo - Configuring RODC Credential Caching
Lesson 4: Administering AD DS
Overview of Active Directory Administration Snap-ins
Overview of the Active Directory Administrative Center
What Is Ntdsutil?
Overview of the Active Directory Module for Windows PowerShell
Demo - Managing AD DS by Using Management Tools
Managing Operations Master Roles
Managing AD DS Backup and Recovery
Lesson 5: Managing the AD DS Database
Understanding the AD DS Database
Understanding Restartable AD DS
Demo - Performing AD DS Database Maintenance
Creating AD DS Snapshots
Understanding How to Restore Deleted Objects
Configuring the Active Directory Recycle Bin
Demo - Using the Active Directory Recycle Bin
Module 02 Review

Module 03 - Managing User and Service Accounts 55m
Lesson 1: Configuring Password Policy and User Account Lockout Settings
User Account Policies
Kerberos Policies
Configuring User Account Policies
What Are Password Settings Objects?
Configuring PSOs
Demo - Configuring Password Settings
Demo - Configuring PSOs
Discussion: Planning Password Policies
Lesson 2: Configuring Managed Service Accounts
Service Account Overview
Challenges of Using Standard User Accounts for Services
Managed Service Account and Virtual Accounts
What Are Group Managed Service Accounts?
Demo - Configuring Group Managed Service Accounts
Kerberos Delegation and Service Principal Names
Module 03 Review

Module 04 - Implementing a Group Policy Infrastructure 1h 45m
Lesson 1: Introducing Group Policy
What Is Configuration Management?
Overview of Group Policies
Benefits of Using Group Policy
Group Policy Objects
GPO Scope
Group Policy Client and Client-Side Extensions
Demo - How to Create a GPO and Configure GPO Settings
Lesson 2: Implementing and Administering GPOs
Module 05 - Managing User Desktops with Group Policy

Lesson 1: Implementing Administrative Templates
What Are Administrative Templates?
What Are ADM and ADMX Files?
The Central Store
Discussion: Practical Uses of Administrative Templates
Demo - Configuring Settings with Administrative Templates
Extending Administrative Templates
Demo - Configuring Administrative Templates
Lesson 2: Configuring Folder Redirection and Scripts
What Is Folder Redirection?
Settings for Configuring Folder Redirection
Security Settings for Redirected Folders
Demo - Configuring Folder Redirection
Group Policy Settings for Applying Scripts
Demo - Configuring Scripts with GPOs
Lesson 3: Configuring Group Policy Preferences
What Are Group Policy Preferences?
Comparing Group Policy Preferences and Administrative Templates
Features of Group Policy Preferences
Item-Level Targeting Options
Demo - Configuring Group Policy Preferences
Lesson 4: Managing Software with Group Policy
How Group Policy Software Distribution Helps to Address the Software Lifecycle
How Windows Installer Enhances Software Distribution
Assigning and Publishing Software
Managing Software Upgrades by Using Group Policy
Module 05 Review
Module 06 - Implementing Remote Access
Lesson 1: Overview of Remote Access
Remote Access Options
Managing Remote Access in Windows Server 2012
Demo - Installing and Managing the Remote Access Role
Network Address Translation
Considerations for Deploying a PKI for Remote Access
Configuring User Settings for Remote Access
Lesson 2: Implementing DirectAccess by Using the Getting Started Wizard
DirectAccess Components
DirectAccess Server Deployment Options
DirectAccess Tunneling Protocol Options
How DirectAccess Works for Internal Clients
How DirectAccess Works for External Clients
Demo - Running the Getting Started Wizard
Getting Started Wizard Configuration Changes
Demo - Identifying the Getting Started Wizard Settings
Limitations of DirectAccess Deployments When Using the Getting Started Wizard
Lesson 3: Implementing and Managing an Advanced DirectAccess Infrastructure
Overview of the Advanced DirectAccess Options
Integrating a PKI with DirectAccess
Implementing Client Certificates for DirectAccess
Internal Network Configuration Options
Configuring Advanced DNS Settings
Implementing Network Location Servers
Implementing Management Servers
Demo - Modifying the DirectAccess Infrastructure
How to Monitor DirectAccess Connectivity
How to Troubleshoot DirectAccess Connectivity
Demo - Monitoring and Troubleshooting DirectAccess Connectivity
Lesson 4: Implementing VPN
VPN Scenarios
VPN Tunneling Protocol Options
VPN Authentication Options
What Is VPN Reconnect?
VPN Configuration by Using the Getting Started Wizard
Options for Modifying the VPN Configuration
Demo - Configuring VPN
What Is the Connection Manager Administration Kit?
Lesson 5: Implementing Web Application Proxy
What Is Web Application Proxy?
What is AD FS
Authentication Options for Web Application Proxy
Publishing Applications with Web Application Proxy
Demo - Publishing a Secure Website
Module 06 Review

Module 07 - Installing, Configuring, and Troubleshooting the Network Policy Server Role
Lesson 1: Installing and Configuring a Network Policy Server
What Is a Network Policy Server?
Demo - Installing the Network Policy Server Role
Tools for Configuring a Network Policy Server
Demo - Configuring General NPS Settings
Lesson 2: Configuring RADIUS Clients and Servers
What Is a RADIUS Client?
What Is a RADIUS Proxy?
Demo - Configuring a RADIUS Client
What Is a Connection Request Policy?
Configuring Connection Request Processing
Demo - Creating a Connection Request Policy
Lesson 3: NPS Authentication Methods
Password-Based Authentication Methods
Using Certificates for Authentication
Required Certificates for Authentication
Deploying Certificates for PEAP and EAP
Lesson 4: Monitoring and Troubleshooting a Network Policy Server
Methods Used to Monitor NPS
Logging NPS Accounting
Configuring SQL Server Logging
Configuring NPS Events to Record in the Event Viewer
Module 07 Review

Module 08 - Implementing Network Access Protection
Lesson 1: Overview of Network Access Protection
What Is Network Access Protection?
NAP Scenarios
NAP Enforcement Methods
NAP Platform Architecture
Lesson 2: Overview of NAP Enforcement Processes
NAP Enforcement Processes
IPsec Enforcement
802.1X Enforcement
VPN Enforcement
DHCP Enforcement
Lesson 3: Configuring NAP
What Are System Health Validators?
What Is a Health Policy?
What Are Remediation Server Groups?
NAP Client Configuration
Demo - Configuring NAP
Lesson 4: Configuring IPsec Enforcement for NAP
What Is IPsec?
IPsec Authentication and Encryption Options
NAP with IPsec Enforcement Components
How IPsec Enforcement Works
Planning IPsec Logical Networks
Configuring the HRA Server
Configuring the Certification Authority
Lesson 5: Monitoring and Troubleshooting NAP
What Is NAP Tracing?
Demo - Configuring NAP Tracing
Troubleshooting NAP
Troubleshooting NAP with Event Logs
Module 08 Review

Module 09 - Optimizing File Services
Lesson 1: Overview of FSRM
Understanding Capacity Management Challenges
What Is FSRM?
Demo - How to Install and Configure FSRM
Lesson 2: Using FSRM to Manage Quotas, File Screens, and Storage Reports
What Is Quota Management?
What Are Quota Templates?
Monitoring Quota Usage
What Is File Screening Management?
What Are File Groups?
What Are File Screen Templates and File Screen Exceptions?
What Are Storage Reports?
What Is a Report Task?
Demo - Using FSRM to Manage Quotas and File Screens, and Generate On-Demand Storage Reports
Lesson 3: Implementing Classification and File Management Tasks
What Is File Classification?
What Are Classification Rules?
Demo - Configuring File Classification
What Are File Management Tasks?
Lesson 4: Overview of DFS
What Is DFS?
What Is a DFS Namespace?
What Is DFS Replication?
How DFS Namespace and DFS Replication Works
What Is Data Deduplication?
DFS Scenarios
Lesson 5: Configuring DFS Namespaces
Deploying Namespaces to Publish Content
Permissions Required to Create and Manage a Namespace
Optimizing a Namespace
Lesson 6: Configuring and Troubleshooting DFS Replication
New Features For Windows Server 2012 R2
Replication Groups and Replicated Folders
Initial Replication Process
Troubleshooting DFS
Module 09 Review

Module 10 - Configuring Encryption and Advanced Auditing
Lesson 1: Encrypting Drives by Using BitLocker
What is BitLocker?
How BitLocker Works
BitLocker Requirements
Configuring BitLocker
Using Group Policy to Manage BitLocker
Demo - Configuring BitLocker
Recovering Drives Encrypted with BitLocker
Lesson 2: Encrypting Files by Using EFS
What Is EFS?
How EFS Works
Recovering EFS-Encrypted Files
Demo - Encrypting a File by Using EFS
Lesson 3: Configuring Advanced Auditing
Overview of Audit Policies
Specifying Auditing Settings on a File or Folder
Enabling Audit Policy
Evaluating Events in the Security Log
Advanced Audit Policies
Demo - Configuring Advanced Auditing
Module 10 Review
Module 11 - Deploying and Maintaining Server Images
Lesson 1: Overview of Windows Deployment Services
  What Is Windows Deployment Services?
  Windows Deployment Services Components
  Why Use Windows Deployment Services?
  Discussion: How to Use Windows Deployment Services
Lesson 2: Managing Images
  The Role of Images in Windows Deployment Services
  Windows ADK Tools for Image Management
  Image Types
  Creating an Install Image
  Managing and Maintaining Images
  Demo - Using DISM to Configure an Image
Lesson 3: Implementing Deployment with Windows Deployment Services
  Understanding Windows Deployment Services Components
  Installing and Configuring Windows Deployment Services
  Managing Deployments with Windows Deployment Services
Lesson 4: Administering Windows Deployment Services
  Common Administration Tasks
  Demo - How to Administer Images
  Automating Deployments
  Demo - How to Configure Multicast Transmission
Module 11 Review

Module 12 - Implementing Update Management
Lesson 1: Overview of WSUS
  What Is WSUS?
  WSUS Server Deployment Options
  The WSUS Update Management Process
  Server Requirements for WSUS
  Configuring Clients to Use WSUS
  Demo - Installing and Configuring WSUS
Lesson 2: Deploying Updates with WSUS
  WSUS Administration
  What Are Computer Groups?
  Approving Updates
  Configuring Automatic Updates
  Demo - Deploying Updates by Using WSUS
  WSUS Reporting
  WSUS Troubleshooting
Module 12 Review

Module 13 - Monitoring Windows Server 2012
Lesson 1: Monitoring Tools
  Overview of Task Manager
  Overview of Performance Monitor
  Overview of Resource Monitor
  Overview of Reliability Monitor
  Overview of Event Viewer
  Monitoring a Server With Server Manager
Lesson 2: Using Performance Monitor
  Performance Baselines, Trends, and Capacity Planning
  What Are Data Collector Sets?
  Demo - Capturing Counter Data with a Data Collector Set
  What Are Alerts?
  Demo - Configuring an Alert
Demo - Viewing Reports in Performance Monitor
Monitoring Network Infrastructure Services
Considerations for Monitoring Virtual Machines
Lesson 3: Monitoring Event Logs
Using Server Manager to View Event Logs
What Is a Custom View?
Demo - Creating a Custom View
What Are Event Subscriptions?
Demo - Configuring an Event Subscription
Module 13 Review
Course Closure

Total Duration: 18h 24m