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COURSE OUTLINE	ADMINISTERING WINDOWS SERVER® 2012

Microsoft Course Code   20411

About this course

Get hands-on instruction and practice administering Windows Server 2012, including Windows Server 2012 R2, in this five-day Microsoft Official Course. This course is part two in a series of three courses that provides the skills and knowledge necessary to implement a core Windows Server 2012 infrastructure in an existing enterprise environment.

The three courses collectively cover implementing, managing, maintaining and provisioning services and infrastructure in a Windows Server 2012 environment. Although there is some cross-over of skills and tasks across these courses, this course focuses on the administration tasks necessary to maintain a Windows Server 2012 infrastructure such as configuring and troubleshooting name resolution, user and group management with Active Directory Domain Services (AD DS) and Group Policy, implementing Remote Access solutions such as DirectAccess, VPNs and Web Application Proxy, implementing Network Policies and Network Access Protection, Data Security, deployment and maintenance of server images, as well as update management and monitoring of Windows Server 2012 environments.

This course maps directly to and is the preferred choice for hands-on preparation for Microsoft Certified Solutions Associate (MCSA): Exam 411: Administering Windows Server 2012, which is the second of three exams required for MCSA: Windows Server 2012 credential.

Labs in this course are based on Windows Server 2012 R2 and Windows 8.1.

Audience Profile

This course is intended for Information Technology (IT) Professionals with hands on experience working in a Windows server 2008 or Windows Server 2012 environment who wish to acquire the skills and knowledge necessary to be able to manage and maintain the core infrastructure required for a Windows Server 2012 and Windows Server 2012 R2 environment. The key focus for students is to broaden the initial deployment of Windows Server 2012 services and infrastructure and provide the skills necessary to Manage and Maintain a domain based Windows Server 2012 environment, providing skills in areas such as User and Group management, Network Access and Data Security. Candidates typically interested in attending this course would be

- Windows Server Administrators experienced in working with Windows Server 2008 or Windows Server 2012 who wish to gain skills necessary to perform daily management and maintenance tasks in a Windows Server 2012 or Windows Server 2012 R2 environment.
- IT Professionals who are looking to take the 411, Administering Windows Server 2012 exam
- IT professional wishing to take the Microsoft Certified Solutions Expert (MCSE) exams in DataCenter, Desktop Infrastructure, Messaging, Collaboration and Communications will also be interested in taking this course as they prepare for the Microsoft Certified Solutions Associate (MCSA) exams, which are a pre-requisite for their individual specialties.

At course completion

After completing this course, students will be able to:

- Configure and Troubleshoot Domain Name System
- Maintain Active Directory Domain Services
- Manage User and Service Accounts
- Implement Group Policy Infrastructure
- Manage User Desktops using Group Policy
- Install, Configure and Troubleshoot Network Policy Server
- Implement Network Access Protection
- Implement Remote Access
- Optimize File Services
- Configure Encryption and Advanced Auditing
- Deploy and Maintain Server Images
- Implement Update Managements
- Monitor Windows Server 2012

Course Outline

Module 1: Implementing a Group Policy Infrastructure

This module explains Group Policy is, how it works, and how best to implement it in your organization.

Lessons

- 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

- Creating and Configuring GPOs
- Managing GPO Scope
- Verifying GPO Application
- Managing GPOs

After completing this module, students will be able to:

- Understand Group Policy.
- Implement and administer GPOs.
- Manage Group Policy scope.
- Process Group Policy.
- Troubleshoot the application of GPOs.

Module 2: Managing User Desktops with Group Policy

This module explains how to configure Administrative Templates.

Lessons

- Implementing Administrative Templates
- Configuring Folder Redirection and Scripts
- Configuring Group Policy Preferences
- Managing Software with Group Policy

Lab : Managing User Desktops with Group Policy

- Implementing Settings by Using Group Policy Preferences
- Configuring Folder Redirection

After completing this module, students will be able to:

- Describe and implement Administrative Templates.
- Configure folder redirection and scripts by using GPOs.
- Configure GPO preferences.
- Deploy software by using GPOs.

Module 3: Configuring and Troubleshooting Remote Access

This module explains how to configure and secure your remote access clients by using network.

Lessons

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

Lab : Configuring Remote Access

- Configuring a VPS Server
- Configuring VPN Clients
- Configuring the DirectAccess Infrastructure
- Configuring the DirectAccess Clients
- Verifying the DirectAccess Configuration

Lab : Configuring DirectAccess

- Configuring a VPS Server
- Configuring VPN Clients
- Configuring the DirectAccess Infrastructure
- Configuring the DirectAccess Clients
- Verifying the DirectAccess Configuration

After completing this module, students will be able to:

- Configure network access.
- Create and configure a VPN solution.
- Describe the role of network policies.
- Troubleshoot routing and remote access.
- Configure DirectAccess.

Module 4: Deploying and Maintaining Server Images

This module explains the functionality of Windows Deployment Services, and explains how to use Windows Deployment Services tools to perform lite-touch deployments.

Lessons

- 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

- Installing and Configuring Windows Deployment Services
- Creating Operating System Images with Windows Deployment Services
- Configuring Custom Computer Naming
- Deploying Images with Windows Deployment Services

After completing this module, students will be able to:

- Describe the important features and functionality of Windows Deployment Services.
- Configure Windows Deployment Services in Windows Server 2012.
- Perform deployments with Windows Deployment Services.

Module 5: Configuring and Troubleshooting Domain Name System

This module explains how the Domain Name System (DNS) is the foundation name service in Windows Server 2012. It provides name resolution, and enables DNS clients to locate network services, such as AD DS domain controllers, global catalog servers, and messaging servers. If you configure your DNS infrastructure poorly, or it is not working correctly, these important network services will be inaccessible to your network servers and clients. Consequently, it is vital that you understand how to deploy, configure, manage, and troubleshoot this critical service.

Lessons

- 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

- Configuring DNS Resource Records
- Configuring DNS Conditional Forwarding
- Configuring DNS Conditional Forwarding
- Troubleshooting DNS

After completing this module, students will be able to:

- Install the DNS server role.
- Configure the DNS server role.
- Create and configure DNS zones.
- Configure DNS zone transfers.
- Manage and troubleshoot DNS.

Module 6: Maintaining Active Directory Domain Services

This module explains the new features, such as virtualized domain controller cloning, recent features like read-only domain controllers (RODCs), and a host of other features and tools that you can use in the AD DS environment.

Lessons

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

Lab : Maintaining AD DS

- Installing and Configuring a RODC
- Configuring AD DS snapshots
- Configuring the Active Directory Recycle Bin

After completing this module, students will be able to:

- Explain the general structure of AD DS.
- Implement virtualized domain controllers.
- Implement RODCs.
- Administer AD DS.
- Manage the AD DS database.

Module 7: Managing User and Service Accounts

This module explains how to manage large groups of user accounts, explain the different options available for providing adequate password security for accounts in your environment, and show you how to configure accounts to provide authentication for system services and background processes.

Lessons

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

Lab : Managing User and Service Accounts

- Configuring Password-Policy and Account-Lockout Settings
- Creating and Associating a Managed Service Account

After completing this module, students will be able to:

- Automate user account creation.
- Configure password-policy and account-lockout settings.
- Configure managed service accounts.

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

This module explains how to install, configure, and troubleshoot Network Policy Server (NPS).

Lessons

- 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

- Installing and Configuring NPS to Support RADIUS
- Configuring and Testing a RADIUS Client

After completing this module, students will be able to:

- Install and configure NPS.
- Configure RADIUS clients and servers.
- Explain NPS authentication methods.
- Monitor and troubleshoot NPS.

Module 9: Implementing Network Access Protection

This module explains how to create customized health requirement policies to validate computer health before allowing access or communication with NAP.

Lessons

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

Lab : Implementing NAP

- Configuring NAP Components
- Configuring VPN Access
- Configuring the Client Settings to Support NAP

After completing this module, students will be able to:

- Describe how NAP can help protect your network.
- Describe the various NAP enforcement processes.
- Configure NAP.
- Monitor and troubleshoot NAP.

Module 10: Optimizing File Services

This module explains how to use File Server Resource Manager (FSRM) to place quotas on storage volumes, screen files and folders, generate comprehensive storage reports, control the file classification infrastructure, and use file management tasks to perform scheduled actions on sets of files.

Lessons

- 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

- Configuring FSRM Quotas
- Configuring File Screening and Storage Reports
- Installing the DFS Role Service
- Configuring a DFS Namespace
- Configuring DFS-R

Lab : Implementing DFS

- Configuring FSRM Quotas
- Configuring File Screening and Storage Reports
- Installing the DFS Role Service
- Configuring a DFS Namespace
- Configuring DFS-R

After completing this module, students will be able to:

- Describe FSRM.
- Use FSRM to manage quotas, file screens, and storage reports.
- Implement classification and file management tasks.
- Describe DFS.
- Configure DFS namespaces.
- Configure and troubleshoot DFS Replication.

Module 11: Configuring Encryption and Advanced Auditing

This module describes how to use Windows Server 2012 tools to help you to provide increased file system security on your servers.

Lessons

- Encrypting Files by Using Encrypting File System
- Configuring Advanced Auditing

Lab : Configuring Encryption and Advanced Auditing

- Encrypting and Recovering Files
- Configuring Advanced Auditing

After completing this module, students will be able to:

- Encrypt files by using Encrypting File System (EFS).
- Configure advanced auditing.

Module 12: Implementing Update Management

This module introduces key features of the Windows Server Update Services (WSUS) server role.

Lessons

- Overview of WSUS
- Deploying Updates with WSUS

Lab : Implementing Update Management

- Implementing the WSUS Server Role
- Configuring Update Settings
- Approving and Deploying an Update by Using WSUS

After completing this module, students will be able to:

- Describe the role of WSUS.
- Deploy updates with WSUS.

Module 13: Monitoring Windows Server 2012

This module explains how to improve performance using performance monitoring tools to identify components that require additional tuning and troubleshooting.

Lessons

- Monitoring Tools
- Using Performance Monitor
- Monitoring Event Logs

Lab : Monitoring Windows Server 2012

- Establishing a Performance Baseline
- Identifying the Source of a Performance Problem
- Viewing and Configuring Centralized Event Logs

After completing this module, students will be able to:

- Describe the monitoring tools for Windows Server 2012.
- Use Performance Monitor to view and analyze performance statistics of programs that are running on your servers.
- Monitor event logs to view and interpret the events that occurred.

Prerequisites

Before attending this course, students must have:

- Knowledge and skills concerning the initial implementation and configuration of core Windows Server services including Active Directory Domain Services (AD DS), Networking Services and Microsoft Hyper-V.

The course pre-requisites can be met by having knowledge equivalent to, or by attendance at, course 20410D: Installing and Configuring Windows Server 2012, as this course will build upon that knowledge and skills covered in that course.

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