

MOC 20412 D: Configuring Advanced Windows Server 2012 Services

Course Summary

Description

Get hands-on instruction and practice configuring advanced Windows Server 2012, including Windows Server 2012 R2, services in this five-day Microsoft Official course. This course is part three 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 advanced configuration of services necessary to deploy, manage and maintain a Windows Server 2012 infrastructure, such as advanced networking services, Active Directory Domain Services (AD DS), Active Directory Rights Management Services (AD RMS), Active Directory Federation Services (AD FS), Network Load Balancing, Failover Clustering, business continuity and disaster recovery services as well as access and information provisioning and protection technologies such as Dynamic Access Control (DAC), and Web Application Proxy integration with AD FS and Workplace Join.

This course maps directly to and is the preferred choice for hands-on preparation for Microsoft Certified Solutions Associate (MCSA): Exam 412: Configuring Advanced Windows Server 2012 Services, which is the third of three exams required for MCSA: Windows Server 2012 credential.

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

Objectives

After taking this course, students will be able to:

- Configure advanced features for Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and configure IP Address Management (IPAM) with Windows Server 2012.
- Configure and manage iSCSI, BranchCache and FSRM.
- Configure DAC to manage and audit access to shared files.
- Plan and implement an AD DS deployment that includes multiple domains and forests.
- Plan and implement an AD DS deployment that includes locations.
- Implement and configure an Active Directory Certificate Services (AD CS) deployment.
- Implement an AD RMS deployment.
- Implement an AD FS deployment.
- Provide high availability and load balancing for web-based applications by implementing Network Load Balancing (NLB).
- Implement and validate high availability and load balancing for web-based applications by implementing NLB.
- Provide high availability for network services and applications by implementing failover clustering.
- Implement a failover cluster, and configure and validate a highly available network service.
- Deploy and manage Hyper-V virtual machines in a failover cluster.
- Implement a backup and disaster recovery solution based on business and technical requirements.

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Course Summary (cont'd)

Topics

- Implementing Advanced Network Services
- Implementing Advanced File Services
- Implementing Dynamic Access Control
- Implementing Distributed Active Directory Domain Services Deployments
- Implementing Active Directory Domain Services Sites and Replication
- Implementing AD CS
- Implementing Active Directory Rights Management Services
- Implementing and Administering AD FS
- Implementing Network Load Balancing
- Implementing Failover Clustering
- Implementing Failover Clustering with Hyper-V
- Implementing Business Continuity and Disaster Recovery

Audience

This course is intended for Information Technology (IT) Professionals with hands on experience implementing, managing and maintaining a Windows Server 2012 or Windows Server 2012 R2 environment who wish to acquire the skills and knowledge necessary to perform advanced management and provisioning of services within that Windows Server 2012 environment. Candidates who would typically be interested in attending this course will be:

- Experienced Windows Server Administrators who have real world experience working in a Windows Server 2008 or Windows Server 2012 enterprise environment.
- IT Professionals who are looking to take the exam 412: Configuring Advanced Windows Server 2012 Services.
- IT Professionals 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 MCSA exams, which are a pre-requisite for their individual specialties.

Prerequisites

Before attending this course, students must have experience working with Windows Server 2008 or Windows Server 2012 servers day to day in an Enterprise environment.

The course pre-requisites can be met by having knowledge equivalent to, or by attendance at, courses 20410C: Installing and Configuring Windows Server 2012 and 20411C: Administering Windows Server 2012 as this course will build upon the knowledge and skills covered in those courses.

Duration

Five days

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Course Outline

I. Implementing Advanced Network Services

In this module students will be able to configure advanced features for Dynamic Host Configuration Protocol (DHCP) and Domain Name System (DNS), and configure IP Address Management (IPAM).

II. Lessons

- A. Configuring Advanced DHCP Features
- B. Configuring Advanced DNS Settings
- C. Implementing IPAM
- D. Managing IP Address Spaces with IPAM

Lab: Implementing Advanced Network Services

III. Implementing Advanced File Services

In this module students will be able to configure file services to meet advanced business requirements.

- A. Configuring iSCSI Storage
- B. Configuring BranchCache
- C. Optimizing Storage Usage

Lab: Implementing Advanced File Services

Lab: Implementing BranchCache

IV. Implementing Dynamic Access Control

In this module students will be able to configure Dynamic Access Control (DAC) to manage and audit access to shared files.

- A. Overview of DAC
- B. Implementing DAC Components
- C. Implementing DAC for Access Control
- D. Implementing Access Denied Assistance
- E. Implementing and Managing Work Folders

Lab: Implementing Secure Data Access

V. Implementing Distributed Active Directory Domain Services Deployments

In this module students will be able to plan and implement an Active Directory Domain Services

(AD DS) deployment that includes multiple domains and forests.

- A. Overview of Distributed AD DS Deployments
- B. Deploying a Distributed AD DS Environment
- C. Configuring AD DS Trusts

Lab: Implementing Distributed AD DS Deployments

VI. Implementing Active Directory Domain Services Sites and Replication

In this module students will be able to plan and implement an AD DS deployment that includes multiple locations.

- A. AD DS Replication Overview
- B. Configuring AD DS Sites
- C. Configuring and Monitoring AD DS Replication

Lab: Implementing AD DS Sites and Replication

VII. Implementing AD CS

In this module students will be able to implement an Active Directory Certificate Services (AD CS) deployment.

- A. Using Certificates in a Business Environment
- B. PKI Overview
- C. Deploying CAs
- D. Deploying and Managing Certificate Templates
- E. Implementing Certificate Distribution and Revocation
- F. Managing Certificate Recovery

Lab: Deploying and Configuring CA Hierarchy

Lab: Deploying and Managing Certificates

VIII. Implementing Active Directory Rights Management Services

In this module students will be able to implement an AD RMS deployment.

- A. AD RMS Overview
- B. Deploying and Managing an AD RMS Infrastructure

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Course Outline (cont'd)

- C. Configuring AD RMS Content Protection
- D. Configuring External Access to AD RMS

Lab: Implementing AD RMS

IX. Implementing and Administering AD FS

In this module students will be able to implement an Active Directory Federation Services (AD FS) deployment.

- A. Overview of AD FS
- B. Deploying AD FS
- C. Implementing AD FS for a Single Organization
- D. Deploying AD FS in a Business-to-Business Federation Scenario
- E. Extending AD FS to External Clients

Lab: Implementing AD FS

Lab: Implementing AD FS for External Partners and Users

X. Implementing Network Load Balancing

In this module students will be able to provide high availability and load balancing for web-based applications by implementing Network Load Balancing (NLB).

- A. Overview of NLB
- B. Configuring an NLB Cluster
- C. Planning an NLB Implementation

Lab: Implementing NLB

XI. Implementing Failover Clustering

In this module students will be able to provide high availability for network services and applications by implementing failover clustering.

- A. Overview of Failover Clustering
- B. Implementing a Failover Cluster
- C. Configuring Highly Available Applications and Services on a Failover Cluster
- D. Maintaining a Failover Cluster
- E. Implementing a Multi-Site Failover Cluster

Lab: Implementing Failover Clustering

XII. Implementing Failover Clustering with Hyper-V

In this module students will be able to deploy and manage Hyper-V virtual machines in a failover cluster.

- A. Overview of Integrating Hyper-V with Failover Clustering
- B. Implementing Hyper-V Virtual Machines on Failover Clusters
- C. Implementing Hyper-V Virtual Machine Movement

Lab: Implementing Failover Clustering with Hyper-V

XIII. Implementing Business Continuity and Disaster Recovery

In this module students will be able to implement a backup and disaster recovery solution based on business and technical requirements

- A. Data Protection Overview
- B. Implementing Windows Server Backup
- C. Implementing Server and Data Recovery

Lab: Implementing Windows Server Backup and Restore