20412 - Configuring Advanced Windows Server 2012 Services

Duration: **5 days**

Overview:

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. Note: Labs in this course are based on the General Availability release of Windows Server 2012 R2 and Windows 8.1.

Target Audience:

This course is intended for Information Technology (IT) Professionals with hands-on experience implementing, managing and maintaining a

Module 1: Implementing Advanced Network Services

Lessons
- Configuring Advanced DHCP Features
- Configuring Advanced DNS Settings
- Implementing IPAM
- Managing IP Address Spaces with IPAM

Lab: Implementing Advanced Network Services
- Configuring Advanced DHCP Settings
- Configuring Advanced DNS Settings
- Configuring IPAM

Module 2: Implementing Advanced File Services

Lessons
- Configuring iSCSI Storage
- Configuring BranchCache
- Optimising Storage Usage

Lab A: Implementing Advanced File Services
- Configuring iSCSI Storage
- Configuring the File Classification Infrastructure

Lab B: Implementing BranchCache
- Configuring the Main Office Servers for BranchCache
- Configuring the Branch Office Servers for BranchCache
- Configuring Client Computers for BranchCache
- Monitoring BranchCache

Module 3: Implementing Dynamic Access Control

Lessons
- Overview of DAC
- Implementing DAC Components
- Implementing DAC for Access Control
- Implementing Access Denied Assistance
- Implementing and Managing Work Folders

Lab : Implementing Secure Data Access
- Preparing for DAC deployment
- Implementing DAC
- Validating and Remediating DAC
- Implementing Work Folders

Module 4: Implementing Distributed AD DS Deployments

Lessons
- Overview of Distributed AD DS Deployments
- Deploying a Distributed AD DS Environment
- Configuring AD DS Trusts

Lab : Implementing Distributed AD DS Deployments
- Implementing Child Domains in AD DS
- Implementing Forest Trusts

Module 5: Implementing AD DS Sites and Replication

Lessons
- AD DS Replication Overview
- Configuring AD DS Sites
- Configuring and Monitoring AD DS Replication

Lab: Implementing AD DS Sites and Replication
- Modifying the Default Site
- Creating Additional Sites and Subnets
- Configuring AD DS Replication
- Monitoring and Troubleshooting AD DS Replication

Module 6: Implementing Active Directory Certificate Services

Lessons
- Using Certificates in a Business Environment
- PKI Overview
- Deploying CAs
- Deploying and Managing Certificate Templates
- Implementing Certificate Distribution and Revocation
- Managing Certificate Recovery

Lab A: Deploying and Configuring CA Hierarchy
- Deploying a Stand-alone Root CA
- Deploying an Enterprise Subordinate CA

Lab B: Deploying and Managing Certificates
- Configuring Certificate Templates
- Configuring Certificate Enrolment
- Configuring Certificate Revocation
- Configuring Key Recovery

Module 7: Implementing Active Directory Rights Management Services

Lessons
- 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
- Installing and Configuring AD RMS
- Configuring AD RMS Templates
- Implementing the AD RMS Trust Policies
- Verifying the AD RMS Deployment

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.

Pre-requisites:

Before attending this course, students must have attended courses 20410: Installing and Configuring Windows Server 2012 and 20411: Administering Windows Server 2012 or have equivalent skills and knowledge.

At Course Completion:

After completing 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

Module 8: Implementing Active Directory Federation Services

Lessons
- Overview of AD FS
- Deploying AD FS
- Implementing AD FS for a Single Organisation
- Deploying AD FS in a Business-to-Business Federation Scenario
- Extending AD FS to External Clients

Lab A: Implementing AD FS
- Installing and Configuring AD FS
- Configuring an Internal Application for AD FS

Lab B: Implementing AD FS for External Partners and Users
- Configuring AD FS for a Federated Business Partner
- Configuring Web Application Proxy

Module 9: Implementing Network Load Balancing

Lessons
- Overview of NLB
- Configuring an NLB Cluster
- Planning an NLB Implementation

Lab : Implementing NLB
- Implementing an NLB Cluster
- Configuring and Managing the NLB Cluster
- Validating High Availability for the NLB Cluster

Module 10: Implementing Failover Clustering

Lessons
- 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
- Configuring a Failover Cluster
- Deploying and Configuring a Highly Available File Server
- Validating the Deployment of the Highly Available File Server
- Configuring Cluster-Aware Updating on the Failover Cluster

Module 11: Implementing Failover Clustering with Hyper-V

Lessons
- 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
- Configuring Hyper-V Replicas
- Configuring a Failover Cluster for Hyper-V
- Configuring a Highly Available Virtual Machine

Module 12: Implementing Business Continuity and Disaster Recovery

Lessons
- Data Protection Overview
- Implementing Windows Server Backup
- Implementing Server and Data Recovery

Lab: Implementing Windows Server Backup and Restore
- Backing Up Data on a Windows Server 2012 R2 Server
- Restoring Files Using Windows Server Backup