Authorized Training Center

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Microsoft GOLD CERTIFIED Partner

Configuring Advanced Windows Server 2012 Services
36 Contact Hours

Course Overview

This version of this course 20412A utilizes pre-release software in the virtual machines for the labs .
The five day course is part three, of a series of three courses, which provides the skills and knowledge necessary to implement a core Windows Server 2012 Infrastructure in an existing enterprise environment. The three courses in total will collectively cover implementing, managing, maintaining and provisioning services and infrastructure in a Windows Server 2012 environment. While there is some cross-over in skillset and tasks across the three courses this course will primarily cover advanced configuration and services tasks necessary to deploy, manage and maintain a Windows Server 2012 infrastructure, such as identity management and identity federation, network load balancing, business continuity and disaster recovery, fault tolerance and rights management.

This course is also preparation material, and maps directly to, Exam 70-412: Configuring Advanced Windows Server 2012 Services.

Audience

This course is intended for IT Professionals who are experienced implementing, managing and maintaining a Windows Server 2008, Windows Server 2008 R2 or Windows Server 2012 infrastructure in an existing Enterprise environment, and wish to acquire the skills and knowledge necessary to carry out advanced management and provisioning of services within that Windows Server 2012 environment. Students would typically be very experienced System Administrators and should have hands on experience working in a Windows Server 2008, Windows Server 2008 R2 or Windows Server 2012 environment .
A secondary audience for this course will be candidates looking to take Exam 70-412: Configuring Advanced Windows Server 2012 Services, or are aspiring to acquire the Microsoft Certified Solutions Associate (MCSA) credential, either in its own right, or in order to proceed in acquiring the Microsoft Certified Solutions Expert (MCSE) credentials, for which the MCSA credential is a pre-requisite.

At Course Completion

After completing this course, students will be able to:
Implementing Advanced Network Services
Implementing Advanced File Services
Implementing Dynamic Access Control
Implementing Network Load Balancing
Implementing Failover Clustering
Implementing Failover Clustering with Hyper-V
Implementing Disaster Recovery
Implementing Distributed AD DS Deployments
Implementing AD DS Sites and Replication

Implementing AD CS
Implementing AD RMS
Implementing AD FS

Prerequisites
A good understanding of networking fundamentals.
An understanding and experience configuring security and administration tasks in an enterprise environment.
Experience supporting or configuring Microsoft Windows clients.

Course Outline

Module 1: Implementing Advanced Network Services
This module covers configuring advanced features in DNS and DHCP with Windows Server 2012 as well as covering IP Address management (IPAM)
Lessons
Configuring Advanced DHCP Features
Configuring Advanced DNS Settings
Implementing IP Address Management
Lab : Implementing Advanced Network Services
Configuring Advanced DHCP Settings
Configuring Advanced DNS Settings
Configuring IP Address Management
After completing this module, students will be able to:
Configure advanced DNS services
Configure advanced DHCP services
Implement IP Address Management(IPAM)

Module 2: Implementing Advanced File Services
This module will cover learning how to configure and manage iSCSI and BranchCache as well as Implementing Windows 2012 features that optimize storage utilization such as File Server Resource Manager, File classification and Data Deduplication
Lessons
Configuring iSCSI Storage
Configuring Branch Cache
Optimizing Storage Usage
Lab : Implementing Advanced File Services
Configuring iSCSI Storage
Configuring BranchCache
Configuring File Classification Infrastructure
After completing this module, students will be able to:
Configuring iSCSI Storage

Configuring Branch Cache
Optimizing Storage Usage

Module 3: Implementing Dynamic Access Control
This module covers planning and implementing Dynamic Access Control (DAC)
Lessons
Overview of Dynamic Access Control
Planning for a Dynamic Access Control Implementation
Configuring Dynamic Access Control
Lab : Implementing Dynamic Access Control
Planning the DAC implementation
Configuring User and Device Claims
Configuring Resource Property Definitions
Configuring Central Access Rules and Policies
Validating and Remediating Access Control
Implementing New Resource Policies
After completing this module, students will be able to:
Planning for a Dynamic Access Control Implementation
Configuring Dynamic Access Control

Module 4: Implementing Network Load Balancing
This module covers how to plan and implement Network Load Balancing (NLB). It will cover managing and configuring an NLB cluster and validating High Availabillty for an NLB cluster
Lessons
Network Load Balancing Overview
Configuring a Network Load Balancing Cluster
Planning a Network Load Balancing Implementation
Lab : Implementing Network Load Balancing
Implementing an NLB Cluster
Configuring and Managing the NLB Cluster
Validating High Availability for the NLB Cluster
After completing this module, students will be able to:
Configuring a Network Load Balancing Cluster
Planning a Network Load Balancing Implementation

Module 5: Implementing Failover Clustering
This module covers the Failover Clustering features in Windows Server 2012. It will cover how to implementing Failover Cluster, Configuring highly available applications and services on a failover cluster and how to how to maintain Failover Cluster and how to use new maintenance features such as Cluster Aware Updating (CAU). It will also cover how to implement multi-site failover cluster.
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
After completing this module, students will be able to:
Implementing a Failover Cluster
Configuring Highly-Available Applications and Services on a Failover Cluster
Maintaining a Failover Cluster
Implementing a Multi-Site Failover Cluster

Module 6: Implementing Failover Clustering with Hyper-V
This module will cover the options for making virtual machines highly available. It will cover how to implement virtual machines in failover cluster deployed on host, options for moving virtual machine or its storage and Provide high level overview about System Center Virtual Machine Manager (SCVMM) 2012
Lessons
Overview of the Integration of 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 System Center Virtual Machine Manager
Lab : Implementing Failover Clustering with Hyper-V
Configuring Hyper-V Replicas
Configuring a Failover Cluster for Hyper-V
Configuring a Highly Available Virtual Machine
After completing this module, students will be able to:
Overview of the Integration of 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 System Center Virtual Machine Manager

Module 7: Implementing Disaster Recovery
This module covers considerations that must be included when you are implementing a disaster recovery solution, how to Plan and implement a backup solution for Windows Server 2012, Plan and implement server and data recovery using Windows Server Backup and Microsoft Online Backup
Lessons
Disaster Recovery Overview
Implementing Windows Server Backup

Implementing Server and Data Recovery
Lab : Implementing Windows Server Backup and Restore
Backup Windows Server 2012
Restore Files using Windows Server Backup
Recovering a Failed Server
Implementing Microsoft Online Backup and Restore
After completing this module, students will be able to:
Disaster Recovery Overview
Implementing Windows Server Backup using Windows Server Backup and Microsoft Online Backup
Implementing Server and Data Recovery

Module 8: Implementing Distributed AD DS Deployments
This module will cover the components of a highly complex AD DS deployment such as Implementing a distributed AD DS deployment and Configuring AD DS Forest trusts
Lessons
Overview of Distributed AD DS Deployments
Implementing a Distributed AD DS Deployment
Configuring AD DS Trusts
Lab : Implementing Complex AD DS Deployments
Implementing Child Domains in AD DS
Implementing Forest Trusts
After completing this module, students will be able to:
Describe and understand Distributed AD DS Deployments
Implement a Distributed AD DS Deployment
Configure AD DS Trusts

Module 9: Implementing AD DS Sites and Replication
This module covers how replication works in a Windows Server 2012 AD DS environment. It will include configuring AD DS sites in order to optimize AD DS network traffic and configuring and monitor AD DS replication.
Lessons
Overview of AD DS Replication
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
After completing this module, students will be able to:
Understand and describe AD DS Replication
Configure AD DS Sites
Configure and Monitoring AD DS Replication

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Module 10: Implementing AD CS
This module covers Describe the Public Key Infrastructure (PKI) components and concepts. It covers implementing a certification authority infrastructure, Planning and implementing a certificate template deployment using an AD CS certification authority and Planning and implementing certificate distribution and revocation
Lessons
Public Key Infrastructure Overview
Deploying Certification Authorities
Deploying and Managing Certificate Templates
Implementing Certificate Distribution and Revocation
Managing Certificate Recovery
Lab : Implementing Active Directory Certificate Services
Deploying a standalone root CA
Deploying an Enterprise Subordinate CA
Configuring Certificate Templates
Configuring Certificate Enrollment
Configuring Certificate Revocation
Configuring Key Recovery
After completing this module, students will be able to:
Understand and describe Public Key Infrastructure
Deploy Certification Authorities
Deploy and Manage Certificate Templates
Implement Certificate Distribution and Revocation
Manage Certificate Recovery

Module 11: Implementing AD RMS
This module covers features and functionality of Active Directory Rights Management Service (AD RMS). It will outline how it can be used to achieve content protection, Deploying and managing an AD RMS infrastructure and Configuring content protection using AD RMS
Lessons
Active Directory Rights Management Overview
Deploying and Managing an AD RMS Infrastructure
Configuring AD RMS Content Protection
Configuring External Access to AD RMS
Lab : Configuring AD RMS
Installing and Configuring AD RMS
Configuring AD RMS Templates
Implementing the AD RMS Trust Policies
After completing this module, students will be able to:
Understand and Describe Active Directory Rights Management Service (AD RMS)
Deploy and Manage an AD RMS Infrastructure
Configure AD RMS Content Protection

Configure External Access to AD RMS

Module 12: Implementing AD FS
This module covers detailing identity federation business scenarios and how AD FS can be used to address such scenarios. It will cover Configuring the AD FS prerequisites and deploying the AD FS services, Implementing AD FS to enable SSO in a single organization, and Implementing AD FS to enable SSO between federated partners
Lessons
Overview of Active Directory Federation Services
Deploying Active Directory Federation Services
Implementing AD FS for a Single Organization
Deploying AD FS in a Business to Business Federation Scenario
Lab : Implementing AD FS
Configuring AD FS Prerequisites)
Installing and Configuring AD FS
Configuring AD FS for a Single Organization
Configuring AD FS for Federated Business Partners
After completing this module, students will be able to:
Understand and Describe Active Directory Federation Services
Deploy Active Directory Federation Services
Implement AD FS for a Single Organization
Deploy AD FS in a Business to Business Federation Scenario