20412-10969: CONFIGURING ACTIVE DIRECTORY AND ADVANCED WINDOWS SERVER 2012 SERVICES

Duration
5 day

Introduction
The five day course final course in the 20410, 20411, 20412 of a series of courses, which provides the skills and knowledge necessary to implement a core Windows Server 2012 Infrastructure in an existing enterprise and leads to exam 70-412, which is the third of three exams required for MCSA: Windows Server 2012 credential.


As part of the learning experience, you will perform hands-on exercises in a virtual lab environment. This is a fast paced course designed to maximise the content that covered in 5 days.

Because of the accelerated nature of this course it is essential that students attending meet the prerequisites and are committed to working hard, possibly for slightly longer days than normal and be prepared to complete self-study modules in their own time.

Prerequisites
- Experience working with Windows Server 2008 or Windows Server 2012 servers day to day in an Enterprise environment
- Experience working with Active Directory Domain Services (AD DS)
- Experience working in a Windows Server Infrastructure enterprise environment
- Experience working with and troubleshooting core networking infrastructure technologies such as name resolution, IP Addressing, Domain Name System (DNS) and Dynamic Host Configuration Protocol (DHCP)
- Experience working with Hyper-V and Server Virtualization concepts
- An awareness and understanding of general security best practices
- Experience working hands on with Windows client operating systems such as Windows Vista, Windows 7 or Windows 8

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, Branch Cache and FSRM.
- Configure DAC to manage and audit access to shared files.
- Provide high availability and load balancing for web-based applications by implementing Network Load Balancing (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.
- Deploy and administer AD DS in Windows Server 2012.
- Secure AD DS deployment.
- Implement AD DS sites, configure and manage replication
- Implement and manage Group Policy
- Manage user settings with Group Policy
- Implement certification authority (CA) hierarchy with AD CS and how to manage CAs.
- Implement, deploy and manage certificates.
- Implement and manage AD RMS.
- Implement and administer AD FS.
- Secure and provision data access using technologies such as Dynamic Access Control, Work Folders and Workplace Join
- Monitor, troubleshoot and establish business continuity for AD DS services.
- Implement Windows Azure Active Directory.
- Implement and administer Active Directory Lightweight Directory Services (AD LDS).
Course Content

**20412 - Module 1: 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).

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

**20412 - Module 2: Implementing Advanced File Services**
In this module students will be able to configure file services to meet advanced business requirements.

**Lessons**
- Configuring iSCSI Storage
- Configuring Branch Cache
- Optimizing Storage Usage

**10969 - Module 2 & 20412 Module 4 Advanced Deployment and Administration of AD DS**
This module explains how to deploy AD DS remotely and describes the virtualization safeguards, cloning abilities and extending AD DS to the cloud.

**Lessons**
- Deploying AD DS
- Deploying and Cloning Virtual Domain Controllers
- Administering AD DS
- Configuring AD DS Trusts

**Self Study - 10969 Module 1: Overview of Access and Information Protection**
This module provides an overview of multiple Access and Information Protection (AIP) technologies and services what are available with Windows Server 2012 and Windows Server 2012 R2 from a business perspective and maps business problems to technical solutions. It also includes coverage of Forefront Identify Manager (FIM).

**Lessons**
- Introduction to Access and Information Protection Solutions in Business
- Overview of AIP Solutions in Windows Server 2012
- Overview of FIM 2010 R2

**10969 - Module 3: Securing AD DS**
This module describes the threats to domain controllers and what methods can be used to secure the AD DS and its domain controllers.

**Lessons**
- Securing Domain Controllers
- Implementing Account Security
- Implementing Audit Authentication

**10969 - Module 4 - 21412 & Module 5 : Implementing and Administering AD DS Sites and Replication**
This module explains how AD DS replicates information between domain controllers within a single site and throughout multiple sites. This module also explains how to create multiple sites and how to monitor replication to help optimize AD DS replication and authentication traffic.

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

**10969 - Module 5: Implementing Group Policy**
This module describes Group Policy, how it works, and how best to implement it within your organization.

**Lessons**
- Introducing Group Policy
- Implementing and Administering GPOs
- Group Policy Scope and Group Policy Processing
- Troubleshooting the Application of GPOs
- Managing GPOs

**Self Study - 10969 Module 6: Managing User Settings with Group Policy**
This module describes how to use GPO Administrative Templates, Folder Redirection, and Group Policy features to configure users’ computer settings.

**Lessons**
- Implementing Administrative Templates
- Configuring Folder Redirection and Scripts
- Configuring Group Policy Preferences

**20412 - Module 3 & 10969 Module 11: 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.

**Lessons**
- Overview of DAC
- Implementing DAC Components
- Implementing DAC for Access Control
- Implementing Access Denied Assistance
- Implementing and Managing Work Folders
20412 Module 6, 10969 & Modules 7 + 8: Implementing Active Directory Certificate Services
In this module students will be able to implement an Active Directory Certificate Services (AD CS) deployment.

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

Self Study - 10969 Module 13: Implementing Windows Azure Active Directory
This module explains the concepts and technologies in Windows Azure Active Directory and how to implement and integrate it within your organization.

Lessons
- Overview of Windows Azure AD
- Managing Windows Azure AD Accounts

20412 - Module 7 & 10969 Module 9: Implementing and Administering AD RMS Implementing Active Directory Rights Management Services
In this module students will be able to implement an AD RMS deployment.

Lessons
- AD RMS Overview
- Deploying and Managing an AD RMS Infrastructure
- Configuring AD RMS Content Protection
- Configuring External Access to AD RMS

20412 - Module 8 & 10969 Module 10: Implementing Active Directory Federation Services
In this module students will be able to implement an Active Directory Federation Services (AD FS) deployment.

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

10969 Module 14: Implementing and Administering AD LDS
This module explains how to deploy and configure Active Directory Lightweight Directory Services (AD LDS).

Lessons
- Overview of AD LDS
- Deploying AD LDS
- Configuring AD LDS Instances and Partitions
- Configuring AD LDS Replication
- Integrating AD LDS with AD DS

Self Study - 10969 Module 12: Monitoring, Managing, and Recovering AD DS & 20412 Module 12: Implementing Business Continuity and Disaster Recovery

Lessons
- Monitoring AD DS
- Managing the AD DS Database
- AD DS Backup and Recovery Options for AD DS and Other Identity and Access Solutions Data Protection Overview
- Implementing Windows Server Backup
- Implementing Server and Data Recovery

20412 - Module 9: 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).

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

20412 - Module 10: Implementing Failover Clustering
In this module students will be able to provide high availability for network services and applications by implementing failover clustering.

Lessons
- Failover Clustering Overview
- Implementing a Failover Cluster
- Configuring Highly Available Applications and Services on a Failover Cluster
- Maintaining a Failover Cluster
- Implementing a Multi-Site Failover Cluster

20412 - Module 11: 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.

Lessons
- Overview of Integrating Hyper-V with Failover Clustering
- Implementing Hyper-V Virtual Machines on Failover Clusters
- Implementing Hyper-V Virtual Machine Movement