Course Outline 20742B

Module 1: Installing and configuring domain controllers
This module describes the features of AD DS and how to install domain controllers (DCs). It
also covers the considerations for deploying DCs.
Lessons
      Overview of AD DS
      Overview of AD DS domain controllers
      Deploying a domain controller
Lab : Deploying and administering AD DS
      Deploying AD DS
      Deploying domain controllers by performing domain controller cloning
      Administering AD DS
After completing this module, students will be able to:
      Describe AD DS and its main components.
      Describe the purpose and roles of domain controllers.
      Describe the considerations for deploying domain controllers.

Module 2: Managing objects in AD DS
This module describes how to use various techniques to manage objects in AD DS. This includes
creating and configuring user, group, and computer objects.**Lessons**
      Managing user accounts
      Managing groups in AD DS
      Managing computer objects in AD DS
      Using Windows PowerShell for AD DS administration
      Implementing and managing OUs
Lab : Managing AD DS objects
      Creating and managing groups in AD DS
      Creating and configuring user accounts in AD DS
      Managing computer objects in AD DS
Lab : Administering AD DS
      Delegate administration for OUs
      Creating and modifying AD DS objects with Windows PowerShell

After completing this module, students will be able to:
      Manage user accounts in AD DS.
      Manage groups in AD DS.
      Manage computer objects in AD DS.
      Use Windows PowerShell for AD DS administration.
      Implement and manage OUs.
      Administer AD DS.

Module 3: Advanced AD DS infrastructure management
This module describes how to plan and implement an AD DS deployment that includes multiple
domains and forests. The module provides an overview of the components in an advanced AD
DS deployment, the process of implementing a distributed AD DS environment, and the
procedure for configuring AD DS trusts.

Lessons

     Overview of advanced AD DS deployments

     Deploying a distributed AD DS environment

     Configuring AD DS trusts

Lab : Domain and trust management in AD DS

     Implementing forest trusts

     Implementing child domains in AD DS

After completing this module, students will be able to:

     Describe the components of an advanced AD DS deployment.

     Deploy a distributed AD DS environment..

     Configure AD DS trusts.

Module 4: Implementing and administering AD DS sites and replication

This module describes how to plan and implement an AD DS deployment that includes multiple locations. The module explains how replication works in a Windows Server 2016 AD DS environment.

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

     Monitoring and troubleshooting AD DS replication

After completing this module, students will be able to:

     Describe how AD DS replication works.

     Configure AD DS sites to help optimize authentication and replication traffic.

     Configure and monitor AD DS replication.

Module 5: Implementing Group Policy

This module describes how to implement a GPO infrastructure. The module provides an overview of the components and technologies that compose the Group Policy framework.

Lessons

     Introducing Group Policy

     Implementing and administering 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

Lab : Troubleshooting Group Policy infrastructure

     Verify GPO application

     Troubleshooting GPOs

After completing this module, students will be able to:

     Explain what Group Policy is.

          Implement and administer GPOs.

          Describe Group Policy scope and Group Policy processing.

          Troubleshoot GPO application.

Module 6: Managing user settings with Group Policy This module describes how to configure Group Policy settings and Group Policy preferences. This includes implementing administrative templates, configuring folder redirection and scripts, and configuring Group Policy preferences.

Lessons

          Implementing administrative templates

          Configuring Folder Redirection, software installation, and scripts

          Configuring Group Policy preferences

Lab : Managing user settings with GPOs

          Using administrative templates to manage user settings

          Implement settings by using Group Policy preferences

          Configuring Folder Redirection

          Planning Group Policy (optional)

After completing this module, students will be able to:

          Implement administrative templates.

          Configure Folder Redirection, software installation, and scripts.

          Configure Group Policy preferences.

Module 7: Securing Active Directory Domain Services

This module describes how to configure domain controller security, account security, password security, and Group Managed Service Accounts (gMSA).

Lessons

          Securing domain controllers

          Implementing account security

          Implementing audit authentication

          Configuring managed service accounts

Lab : Securing AD DS

          Implementing security policies for accounts, passwords, and administrative groups

          Deploying and configuring an RODC

          Creating and associating a group MSA

After completing this module, students will be able to:

          Secure domain controllers.

          Implement account security.

          Implement audit authentication.

          Configure managed service accounts (MSAs).

Module 8: Deploying and managing AD CS

This module describes how to implement an AD CS deployment. This includes deploying, administering, and troubleshooting CAs.

Lessons

Deploying CAs
Administering CAs
Troubleshooting and maintaining CAs
Lab : Deploying and configuring a two-tier CA hierarchy
Deploying an offline root CA
Deploying an enterprise subordinate CA

After completing this module, students will be able to:
Deploy CAs.
Administer CAs.
Troubleshoot and maintain CAs.

Module 9: Deploying and managing certificates This module describes how to deploy and manage certificates in an AD DS environment. This involves deploying and managing certificate templates, managing certificate revocation and recovery, using certificates in a business environment, and implementing smart cards.**Lessons**
Deploying and managing certificate templates
Managing certificate deployment, revocation, and recovery
Using certificates in a business environment
Implementing and managing smart cards
Lab : Deploying and using certificates
Configuring certificate templates
Enrolling and using certificates
Configuring and implementing key recovery

After completing this module, students will be able to:
Deploy and manage certificate templates.
Manage certificates deployment, revocation, and recovery.
Use certificates in a business environment.
Implement and manage smart cards

Module 10: Implementing and administering AD FS This module describes AD FS and how to configure AD FS in a single-organization scenario and in a partner-organization scenario.**Lessons**
Overview of AD FS
AD FS requirements and planning
Deploying and configuring AD FS
Overview of Web Application Proxy
Lab : Implementing AD FS
Configuring AD FS prerequisites
Installing and configuring AD FS
Configuring an internal application for AD
Configuring AD FS for federated business partners

After completing this module, students will be able to:

Describe AD FS.

Explain how to deploy AD FS.

Explain how to implement AD FS for a single organization.

Explain how to extend AD FS to external clients.

Implement single sign-on (SSO) to support online services.

Module 11: Implementing and administering AD RMS
This module describes how to implement an AD RMS deployment. The module provides an overview of AD RMS, explains how to deploy and manage an AD RMS infrastructure, and explains how to configure AD RMS content protection.
Lessons
Overview of AD RMS
Deploying and managing an AD RMS infrastructure
Configuring AD RMS content protection
Lab : Implementing an AD RMS infrastructure
Installing and configuring AD RMS
Configuring AD RMS templates
Using AD RMS on clients

After completing this module, students will be able to:

Describe AD RMS.

Deploy and manage an AD RMS infrastructure. .

Configure AD RMS content protection.

Module 12: Implementing AD DS synchronization with Microsoft Azure AD
This module describes how to plan and configure directory syncing between Microsoft Azure Active Directory (Azure AD) and on-premises AD DS. The modules describes various sync scenarios, such as Azure AD sync, AD FS and Azure AD, and Azure AD Connect.
Lessons
Planning and preparing for directory synchronization
Implementing directory synchronization by using Azure AD Connect
Managing identities with directory synchronization
Lab : Configuring directory synchronization
Preparing for directory synchronization
Configuring directory synchronization
Managing Active Directory users and groups

After completing this module, students will be able to:

Plan and prepare for directory synchronization.

Implement directory synchronization by using Microsoft Azure Active Directory Connect (Azure AD Connect).

Manage identities with directory synchronization.

Module 13: Monitoring, managing, and recovering AD DS
This module describes how to monitor, manage, and maintain AD DS to help achieve high availability of AD DS.
Lessons
> Monitoring AD DS
> Managing the Active Directory database
> Active Directory backup and recovery options for AD DS and other identity and access
> solutions

Lab : Recovering objects in AD DS
> Backing up and restoring AD DS
> Recovering objects in AD DS

After completing this module, students will be able to:
> Monitor AD DS.
>
> Manage the Active Directory database.
>
> Describe the backup and recovery options for AD DS and other identity access
> solutions.