

Course 6435B:

Designing Windows Server 2008 Network and Applications Infrastructure

Course Details

Course Outline

Module 1: Designing IP Addressing and Configuration

This module describes how to design a strategy for allocating IP addresses to workstations and servers in Windows Server 2008. The module also describes how to design DHCP implementation and the configuration options that are available.

Lessons

- Designing an IPv4 Addressing Scheme
- Designing an IPv6 Addressing Scheme
- Designing an IPv6 Transition Strategy
- Designing an IPv4 DHCP Implementation
- Planning DHCP Scope Configuration

Lab : Designing and Implementing IP Addressing in Windows Server 2008

- Designing an IPv4 Addressing Scheme
- Designing an IPv6 Addressing Scheme
- Designing a DHCP Implementation
- Discuss IP Address Allocation
- Implementing an IPv4 Addressing Scheme

After completing this module, students will be able to:

- Design an IPv4 addressing scheme.
- Design an IPv6 addressing scheme.
- Develop an IPv6 transition strategy.
- Design a DHCP implementation.
- Plan DHCP scope configuration and options.

Module 2: Designing Name Resolution

This module explains how to design an appropriate name resolution strategy that incorporates DNS. The module also covers DNS namespaces, DNS zone implementation, replication, and delegation.

Lessons

- Collecting Information for a Name Resolution Design
- Designing a DNS Server Strategy
- Designing a DNS Namespace
- Designing DNS Zone Implementation
- Designing Zone Replication and Delegation

Lab : Designing and Implementing a Name Resolution Strategy in Windows Server 2008

- Designing a DNS Namespace
- Designing a DNS Server Strategy
- Designing a DNS Zone and Replication Strategy
- Implementing Name Resolution

After completing this module, students will be able to:

- Determine the information required to plan name resolution.
- Design a DNS server strategy.
- Design a DNS namespace.
- Design a DNS zone strategy.
- Design a DNS zone replication strategy.

Module 3: Designing Advanced Name Resolution

This module explains how to design an advanced name resolution strategy by optimizing DNS queries, designing DNS for high availability, and designing a NetBios name resolution plan.

Lessons

- Optimizing DNS Queries
- Designing DNS for High Availability and Security
- Designing a NetBIOS Name Resolution Strategy

Lab : Designing and Implementing Advanced Name Resolution in Windows Server 2008

- Designing an Optimized DNS Solution

- Designing High Availability for Name Resolution
- Designing NetBIOS Name Resolution
- Implementing the Optimized Design

After completing this module, students will be able to:

- Optimize DNS resolution.
- Design DNS for high availability and security.
- Design a NetBIOS name resolution strategy.

Module 4: Designing Network Access

This module explains how to design a network access solution. The module also describes how to secure network access, design a strategy for RADIUS authentication with NPS, design wireless access, and Internet connectivity.

Lessons

- Securing and Controlling Network Access
- Designing Remote Access Services
- Designing RADIUS Authentication with Network Policy Services
- Designing Wireless Access
- Designing Internet Connectivity and Perimeter Networks

Lab : Designing and Implementing a Network Access Solution

- Designing a VPN Solution
- Designing Network Policy Services
- Designing a Wireless Connection Solution
- Implementing Network Access

Lab : Designing a Network Access Solution

- Designing a Perimeter Network

After completing this module, students will be able to:

- Secure and control network access.
- Design remote access services.
- Design a Remote Authentication Dial-In User Service (RADIUS) solution.
- Design wireless access.
- Design a perimeter network.

- Describe how to design network infrastructure to support Windows 7 DirectAccess.

Module 5: Designing Network Security

This module explains how to design a network security plan. The module describes the defense-in-depth model for network security and explains how to implement Windows Firewall and NAP policies.

Lessons

- Overview of Network Security Design
- Identifying and Analyzing Threats to Network Security
- Designing a Windows Firewall Implementation
- Designing a Network Access Protection Infrastructure

Lab : Designing a Network Security Plan

- Assembling a Team for the Security Plan
- Identifying Security Threats

Lab : Designing and Implementing a Windows Firewall Solution

- Designing a Windows Firewall Implementation
- Designing an IPsec Implementation
- Implementing Windows Firewall

Lab : Designing and Implementing NAP

- Analyze NAP Enforcement Methods
- Designing DHCP NAP Enforcement
- Designing IPsec NAP Enforcement
- Implementing VPN NAP Enforcement

After completing this module, students will be able to:

- Describe the network security design process.
- Describe how to identify and analyze threats to network security.
- Describe a Windows Firewall implementation.
- Design a NAP infrastructure.

Module 6: Designing Application Deployment

This explains how to design application deployment. This includes deployment of local applications,

virtual applications, and virtual desktop.

Lessons

- Overview of Application Deployment
- Designing Deployment of Local Applications
- Designing Deployment of Virtual Applications
- Designing Deployment of Virtual Desktops

Lab : Designing Application Deployment

- Selecting an Application Deployment Method
- Deploying a Desktop Application

After completing this module, students will be able to:

- Describe the different ways that you can deploy applications to users.
- Select an appropriate way to deploy desktop applications.
- Determine how to use Microsoft Application Virtualization (App-V) and Microsoft Enterprise Desktop Virtualization (Med-V) for application deployment.
- Determine how to use virtual desktops for application deployment.

Module 7: Designing Remote Desktop Services

This module explains how to design remote desktop services. This includes designing RemoteApp, remote connectivity for RDS, and planning a monitoring and management strategy for RDS.

Lessons

- Designing Remote Desktop Services Connectivity
- Designing RemoteApp
- Designing Remote Connectivity for RDS
- Monitoring and Managing RDS

Lab : Designing Remote Desktop Services

- Designing Deployment for a Line of Business Application
- Deploying an Application by Using RemoteApp

After completing this module, students will be able to:

- Design RDS connectivity.
- Design RemoteApp deployment.
- Design the Remote Desktop Gateway (RD Gateway) service and Remote Desktop Connection Broker (RD Connection Broker) deployment.

- Monitor and manage RDS.

Module 8: Designing Internet Information Services for Web-Based Applications

This module explains how to design IIS for web-based applications. The module describes how to design a plan to optimize IIS performance, security, and maintenance.

Lessons

- Designing Web-based Application Infrastructure
- Optimizing IIS Performance and Stability
- Designing IIS Security
- Monitoring and Maintaining IIS

Lab : Designing IIS for Web-Based Applications

- Designing the Infrastructure for a Web-Based Application
- Configuring IIS for a Web-Based Application

After completing this module, students will be able to:

- Design an appropriate IIS infrastructure for hosting web-based applications.
- Determine the appropriate IIS configuration options to increase performance and scalability of web-based applications.
- Determine the appropriate IIS configuration option to secure web-based applications.
- Design a strategy to maintain IIS for web-based applications.

Module 9: Designing File and Print Services

The module explains how to design file and print services.

Lessons

- Designing File Services
- Designing File Server Resource Management
- Designing File Encryption
- Designing Print Services

Lab : Designing File and Print Services

- Designing File Services
- Designing Print Services
- Implementing a Consolidated File Share

After completing this module, students will be able to:

- Design a file share configuration.
- Determine the appropriate way to deploy File Server Resource Manager.
- Design file encryption.
- Design print services.

Module 10: Designing File Replication and Caching

This module explains how to design a file replication and caching strategy. The module describes how to use DFS to implement file replication and caching.

Lessons

- Branch Office Data Access
- Designing Distributed File System
- Designing File Caching

Lab : Designing File Replication and Caching

- Creating a Design for File Replication and Caching
- Implementing DFS

After completing this module, students will be able to:

- Describe data access for branch offices, and how it can be improved.
- Design a distributed file system.
- Design file caching for branch offices and mobile users.

Module 11: Designing for Business Continuity

This module explains how to design for business continuity by planning for disaster recovery. The module also describes how to design network load balancing, failover clustering, and geographically dispersed clusters.

Lessons

- Disaster Recovery Planning
- Designing Windows Server 2008 Network Load Balancing
- Designing Failover Clustering for High Availability
- Designing Geographically Dispersed Clusters

Lab : Designing for Business Continuity

- Creating a Disaster Recovery Plan
- Creating a High Availability Plan for a Stateful Application

- Implementing NLB

After completing this module, students will be able to:

- Design a disaster recovery plan.
- Design Windows Network Load Balancing.
- Deploy an application using App-V.
- Design geographically dispersed clusters.

Module 12: Designing a Server Virtualization Infrastructure

This module explains how to design a virtualization infrastructure.

Lessons

- Introduction to Virtualization
- Determining Virtualization Suitability
- Server Virtualization Design Considerations
- Migrating and Managing Virtualized Workloads

Lab : Designing a Virtualization Infrastructure

- Designing Server Migration to a Virtualized Environment

After completing this module, students will be able to:

- Describe the benefits of virtualization.
- Determine virtualization suitability.
- Design a server virtualization strategy.
- Explain how to migrate workloads to a virtual environment, and then manage those virtualized workloads.

Module 13: Designing an Update Deployment Strategy

This module explains how to design an update deployment strategy. This includes designing a WSUS topology and an update management strategy.

Lessons

- Designing a WSUS Topology
- Designing an Update Management Strategy

Lab : Designing and Implementing an Update Deployment Strategy

- Designing an Update Deployment Strategy

- Implementing the Update Deployment Strategy

After completing this module, students will be able to:

- Design a WSUS topology.
 - Design an update management strategy.
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