

Course Outline: 6421- Configuring and Troubleshooting a Windows Server 2008 Network

Infrastructure

Learning Method: Instructor-led Classroom Learning

Duration: 5.00 Day(s)/ 40 hrs

Overview:

This five-day instructor-led course provides students with the knowledge and skills to configure and troubleshoot a Windows Sever 2008 network infrastructure. Students will learn to implement and configure secure network access and implement fault tolerant storage technologies. Students will gain an understanding of the network technologies most commonly used with Windows Server 2008 and IP-enabled networks. Students will also learn how to secure servers and maintain update compliance

Who Should Attend: This course is intended for individuals who are employed as, Systems Administrator, Systems Engineer and IT Manager

At Course Completion:

- Install and configure servers.
- Configure and troubleshoot DNS
- Configure and manage WINS
- Configure and troubleshoot DHCP
- Configure and troubleshoot IPv6 TCP/IP
- Configure and troubleshoot Routing and Remote Access
- Install, configure, and troubleshoot the Network Policy Server Role service
- Configure Network Access Protection
- Configure IPsec
- Monitor and troubleshoot IPsec
- Configure and manage Distributed File System
- Configure and manage storage technologies
- Configure availability of network resources and content
- Configure server security compliance

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Outline:

Module 1: Installing and Configuring Servers

Lessons:

- Installing Windows Server 2008
- Managing Server Roles and Features
- Overview of the Server Core Installation Option

Lab: Installing and Configuring Servers and Server Roles

- Exercise 1: Identifying Server Types
- Exercise 2: Installing and Configuring Server Roles and Features
- Exercise 3: Configuring Server Core and Performing Basic Management Tasks

Module 2: Configuring and Troubleshooting DNS

Lessons:

- Installing the DNS Server Role
- Configuring the DNS Server Role
- Configuring DNS Zones
- Configuring DNS Zone Transfers
- Managing and Troubleshooting DNS

Lab: Configuring and Verifying a DNS Solution

Exercise 1: Configuring a DNS Infrastructure

Exercise 2: Monitoring and Troubleshooting DNS

Module 3: Configuring and Managing WINS

Lessons

- Overview of the Windows Internet Name Service
- Managing the WINS Server
- Configuring WINS Replication
- Migrating from WINS to DNS

Lab: Configuring a WINS Infrastructure

Exercise 1: Installing WINS

Exercise 2: Configuring WINS Burst Handling

Exercise 3: Configuring WINS Replication

Exercise 4: Migrating from WINS to DNS

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Module 4: Configuring and Troubleshooting DHCP

Lessons:

- Overview of the DHCP Server Role
- Configuring DHCP Scopes and Options
- Managing a DHCP Database
- Monitoring and Troubleshooting DHCP
- Securing DHCP

Lab: Configuring and Troubleshooting the DHCP Server Role

- Exercise 1: Installing and Authorizing the DHCP Server Role
- Exercise 2: Configuring a DHCP Scope
- Exercise 3: Troubleshooting Common DHCP Issues

Module 5: Configuring and Troubleshooting IPv6 TCP/IP

Lessons:

- Overview of IPv6
- Coexistence with IPv4
- IPv6 Tunneling Technologies
- Transitioning from IPv4 to IPv6
- Troubleshooting IPv6

Lab: Configuring an ISATAP Router

- Exercise 1: Configuring a New IPv6 Network and Client
- Exercise 2: Configuring an ISATAP Router to Enable Communication Between an IPv4 Network and an IPv6 Network

Lab B: Converting the Network

- Exercise 1: Transitioning to an IPv6-Only Network

Module 6: Configuring and Troubleshooting Routing and Remote Access

Lessons

- Configuring Network Access
- Configuring VPN Access
- Overview of Network Policies
- Overview of the Connection Manager Administration Kit
- Troubleshooting Routing and Remote Access

Lab: Configuring and Managing Network Access

- Exercise 1: Configuring Routing and Remote Access as a VPN Remote Access Solution
- Exercise 2: Configuring a Custom Network Policy

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- Exercise 3: Configuring Logging
- Exercise 4: Configuring a Connection Profile

- How NAP Works
- Configuring NAP
- Monitoring and Troubleshooting NAP

Module 7: Installing, Configuring, and Troubleshooting the Network Policy Server Role Service

Lessons:

- Installing and Configuring a Network Policy Server
- Configuring RADIUS Clients and Servers
- NPS Authentication Methods
- Monitoring and Troubleshooting a Network Policy Server

Lab: Lab: Configuring and Managing Network Policy Server

- Exercise 1: Installing and Configuring the Network Policy Server Role Service
- Exercise 2: Configuring a RADIUS Client
- Exercise 3: Configuring Certificate Auto-Enrollment

Module 8: Configuring Network Access Protection

Lessons

- Overview of Network Access Protection

Lab 8: Configuring NAP for DHCP and VPN

- Exercise 1: Configuring NAP for DHCP Clients
- Exercise 2: Configuring NAP for VPN Clients

Module 9: Configuring IPsec

Lessons

- Overview of IPsec
- Configuring Connection Security Rules
- Configuring IPsec NAP Enforcement

Lab: Configuring IPsec NAP Enforcement

- Exercise 1: Preparing the Network Environment for IPsec NAP Enforcement
- Exercise 2: Configuring and Testing IPsec NAP Enforcement

Module 10: Monitoring and Troubleshooting IPsec

Lessons

- Monitoring IPsec Activity
- Troubleshooting IPsec

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Lab: Monitoring and Troubleshooting IPsec

- Exercise 1: Monitoring IPsec Connectivity
- Exercise 2: Configuring Connection Security
- Exercise 3: Troubleshooting IPsec

Module 11: Configuring and Managing Distributed File System

Lessons

- DFS Overview
- Configuring DFS Namespaces
- Configuring DFS Replication

Lab: Configuring DFS

- Exercise 1: Installing the Distributed File System Role Service
- Exercise 2: Creating a DFS Namespace
- Exercise 3: Configuring Folder Targets and Folder Replication
- Exercise 4: Viewing Diagnostic Reports for Replicated Folders

Module 12: Configuring and Managing Storage Technologies

Lessons:

- Windows Server 2008 Storage Management Overview

- Managing Storage Using File Server Resource Manager
- Configuring Quota Management
- Implementing File Screening
- Managing Storage Reports

Lab: Configuring and Managing Storage Technologies

- Exercise 1: Installing the FSRM Role Service
- Exercise 2: Configuring Storage Quotas
- Exercise 3: Configuring File Screening
- Exercise 4: Generating Storage Reports

Module 13: Configuring Availability of Network Resources and Content

Lessons

- Backing Up Data
- Configuring Shadow Copies
- Providing Server and Service Availability

Lab: Configuring Availability of Network Resources

- Exercise 1: Configuring Windows Server Backup and Restore
- Exercise 2: Configuring Shadow Copying
- Exercise 3: Configuring Network Load Balancing

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Module 14: Configuring Server Security Compliance

Lessons

- Securing a Windows Infrastructure
- Using Security Templates to Secure Servers
- Configuring an Audit Policy
- Overview of Windows Server Update Services Managing WSUS

Lab: Configuring Server Security Compliance

- Exercise 1: Configuring and Analyzing Security
- Exercise 2: Analyzing Security Templates
- Exercise 3: Configuring Windows Software Update Services

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