

Configuring Microsoft Windows Server 2008 Network Infrastructure

Course Description

This course provides students with the knowledge and skills to configure and troubleshoot a Windows Server 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.

This course covers concepts addressed on Microsoft Certified Professional Exam 70-642: Microsoft Certified Technology Specialist (MCTS): Windows Server 2008 Network Infrastructure Configuration.

Course Level

Intermediate—Advanced

Who should attend?

This course is intended for Active Directory technology specialists aspiring to be Enterprise Administrators or Network Administrators and for Storage Area Network Administrators who need to understand this information to deploy or extend their current storage infrastructure. Operations Managers who need this information to support troubleshooting efforts and business decisions would also benefit from this course.

Pre-requisites

- Working experience with Windows Server 2003.
- Basic knowledge of Active Directory.
- Basic knowledge of DHCP.
- Basic knowledge of Internet Protocol security (IPsec).
- An understanding of security concepts and methodologies.

Course Objectives

- Install and configure servers.
- Configure name resolution.
- Configure and troubleshoot Dynamic Host Configuration Protocol (DHCP).
- Configure and troubleshoot IPv6 TCP/IP.
- Configure and troubleshoot Routing and Remote Access.
- Configure and troubleshoot Network Policy servers.
- Configure Network Access Protection.
- Configure and manage Distributed File System.
- Manage network data and services.
- Configure server security compliance.

Course Durations

30 Hours

Course Outline

Module 1: Fundamentals of Network Infrastructure

- Network Communication Standards
- Physical Network Infrastructure
- Logical Network Organization

Module 2: Configuring Basic TCP/IP Settings

- Overview of the TCP/IP Protocol Suite
- Overview of TCP/IP Addressing
- TCP/IPv4 Tools
- Overview of IP Communication
- Overview of Subnetting
- Subnetting for Complex Networks

Module 3: Configuring and Troubleshooting DHCP

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

Module 4: Configuring and Troubleshooting DNS

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

Module 5: Configuring and Managing WINS

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

Module 6: Configuring and Troubleshooting IPv6 TCP/IP

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

Module 7: Configuring and Troubleshooting Routing and Remote Access

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

Module 8: Installing, Configuring, and Troubleshooting the Network Policy Server Role Service

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

Module 9: Configuring Network Access Protection

- Overview of Network Access Protection
- How NAP Works
- Configuring NAP
- Monitoring and Troubleshooting NAP

Module 10: Configuring IPsec

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

Module 11: Monitoring and Troubleshooting IPsec

- Monitoring IPsec Activity
- Troubleshooting IPsec