

Course Description: This five-day, instructor-led course provides students with the knowledge and skills to implement, manage, and maintain a Microsoft Windows Server 2003 network infrastructure. The course is intended for systems administrator and systems engineer candidates who are responsible for implementing, managing, and maintaining server networking technologies. These tasks include implementing routing; implementing, managing, and maintaining Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; implementing a network access infrastructure by configuring the connections for remote access clients; and managing and monitoring network access. This is the fourth course in the Systems Administrator and Systems Engineer track for Windows Server 2003, and it is the final course in the Systems Administrator track.

Who Should Attend: This course is intended for individuals who are employed as or seeking employment as a systems administrator or systems engineer.

Prerequisites: Before attending this course, students must have completed Implementing a Microsoft Windows Server 2003 Network Infrastructure: Network Hosts, or have equivalent knowledge and skills.

Benefits of Attendance: Upon completion of this course, students will be able to:

- Allocate IP addressing by using DHCP
- Manage and monitor DHCP
- Resolve names
- Resolve host names by using DNS
- Manage the integration of Active Directory and DNS
- Manage and monitor DNS
- Resolve network basic input/output system (NetBIOS) names by using WINS
- Secure network traffic by using IPSec and certificates
- Configure routing by using the Routing and Remote Access service
- Configure network access

Course Outline:

Allocating IP Addressing by Using Dynamic Host Configuration Protocol (DHCP)

Multimedia: The Role of DHCP in the Network Infrastructure
 Adding and Authorizing a DHCP Server Service
 Configuring a DHCP Scope
 Configuring DHCP Reservations and Options
 Configuring a DHCP Relay Agent
 Lab A: Identifying and Resolving Common Issues When Allocating IP Addressing by Using DHCP
 Identifying and Resolving Common Issues When Allocating IP Addressing by Using DHCP

Managing and Monitoring Dynamic Host Configuration Protocol (DHCP)

Managing a DHCP Database
 Monitoring DHCP
 Applying Security Guidelines for DHCP
 Lab A: Managing and Monitoring DHCP
 Managing and Monitoring DHCP

Resolving Names

Multimedia: Introduction to the Name Resolution Process
 Viewing Names on a Client
 Configuring Host Name Resolution
 Configuring NetBIOS Name Resolution
 Lab A: Resolving Names
 Troubleshooting Name Resolution

Resolving Host Names by Using Domain Name System (DNS)

Multimedia: The Role of DNS in the Network Infrastructure
 Installing the DNS Server Service
 Configuring the DNS Server Service
 Configuring the DNS Zones
 Configuring DNS Zone Transfers
 Configuring a DNS Client
 Lab A: Resolving Host Names by Using Domain Name System
 Implementing a DNS Infrastructure

Integrating Domain Name System and Active Directory

Configuring Active Directory Integrated Zones
 Configuring DNS Dynamic Updates
 Understanding How Active Directory Uses DNS
 Lab A: Integrating DNS and Active Directory
 Configuring Active Directory Integrated DNS Zones

Managing and Monitoring Domain Name System (DNS)

Managing DNS Records
 Testing the DNS Server Configuration
 Monitoring DNS Server Performance
 Lab A: Managing and Monitoring DNS
 Managing and Monitoring DNS

Resolving NetBIOS Names by Using Windows Internet Name Service (WINS)

Multimedia: The Role of WINS in the Network Infrastructure
 Installing and Configuring a WINS Server
 Managing Records in WINS
 Configuring WINS Replication
 Managing the WINS database

Configuring Routing by Using Routing and Remote Access

Multimedia: The Role of Routing in the Network Infrastructure
 Enabling and Configuring the Routing and Remote Access Service
 Configuring Packet Filters
 Lab A: Configuring Routing by Using Routing and Remote Access
 Configure Routing and Remote Access
 Plan a Routing Topology

Securing Network Traffic by Using IPSec and Certificates

Implementing IPSec
 Understanding IPSec Deployment Scenarios
 Monitoring IPSec

Configuring Network Access

Introduction to a Network Access Infrastructure
 Configuring VPN Access
 Configuring Dial-up Access
 Configuring Wireless Access
 Controlling User Access to a Network
 Centralizing Network Access Authentication by Using IAS
 Protecting Remote Access by Using Network Access Quarantine

Managing and Monitoring Network Access

Managing the Network Access Services
 Configuring Logging on a Network Access Server
 Collecting and Monitoring Network Access Data
 Lab A: Managing and Monitoring Remote Access
 Monitoring a Remote Access Server