

DURATION: 5 days**CODE:** SOL/SYS/6421**COURSE OBJECTIVE**

After completing this course, students will be able to:

- Plan and configure an IPv4 network infrastructure.
- Implement DHCP within their organization.
- Configure and troubleshoot DNS.
- Configure, transition to, and troubleshoot IPv6.
- Configure and troubleshoot Routing and Remote Access.
- Install, configure, and troubleshoot the Network Policy Server Role service.
- Implement Network Access Protection.
- Implement security features within Windows Server 2008 and Windows Server 2008 R2.
- Implement security features within Windows Server 2008 and Windows Server 2008 R2 that help to secure network communications.
- Configure and troubleshoot file and print services.
- Enable and configure services to optimize branch office data access.
- Control and monitor network storage.
- Recover data on Windows Server 2008 and Windows Server 2008 R2 servers.
- Monitor Windows Server 2008 and Windows Server R2 network infrastructure services.

6421 - Configuring and Troubleshooting a Windows Server 2008 Network Infrastructure

DESCRIPTION

This five-day instructor-led course provides students with the knowledge and skills to configure and troubleshoot Windows Server 2008 and Windows Server 2008 R2 Sp1 Network Infrastructures. It will cover networking technologies most commonly used with Windows Server 2008 and Windows Server 2008 R2 Sp1 such as DNS, DHCP, IPv4 and IPv6 network addressing, Network Policy server and Network Access Protection and configuring secure network access. It also covers fault tolerant storage technologies, Network Storage and routing and remote access, monitoring and compliance updates as well as other relevant technologies.

COURSE OUTLINE**Module 1: Planning and Configuring IPv4**

- Implementing an IPv4 Network Infrastructure
- Overview of Name Resolution Services in an IPv4 Network Infrastructure
- Configuring and Troubleshooting IPv4

Module 2: Configuring and Troubleshooting DHCP

- Overview of the DHCP Server Role
- Configuring DHCP Scopes
- Configuring DHCP Options
- Managing a DHCP Database

- Monitoring and Troubleshooting DHCP
- Configuring DHCP Security

Module 3: 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

WHO SHOULD ATTEND

This course will be of interest and benefit to attendees with different back grounds and career aspirations. It will be of interest to Network Administrators who currently are, or will be, working with Windows Server 2008 servers. It will also be of interest and benefit to Active Directory technology specialists who aspire to be Enterprise Administrators (Tier 4 day-to-day network operations) or experienced Server Administrators who aspire to be Enterprise Administrators.

Module 4: Configuring and Troubleshooting IPv6 TCP/IP

- Overview of IPv6
- IPv6 Addressing
- Coexistence with IPv6
- IPv6 Transition Technologies
- Transitioning from IPv4 to IPv6

Module 5: 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
- Configuring DirectAccess

Module 6: 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

- Overview of DirectAccess
- Deploying DirectAccess

Module 7: Implementing Network Access Protection

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

Module 8: Increasing Security for Windows Servers

- Windows Security Overview
- Configuring Windows Firewall with Advanced Security
- Deploying Updates with Windows Server Update Services

Module 9: Increasing Security for Network Communication

- Overview of IPsec
- Configuring Connection Security Rules
- Configuring NAP with IPsec Enforcement
- Monitoring and Troubleshooting IPsec

PREREQUISITES

Before attending this course, students must have:

- You must have an intermediate understanding of Windows Server operating systems such as Windows Server® 2003, Windows Server 2008 or Windows Server 2008 R2 Sp1 and Windows client operating systems such as Windows Vista or Windows 7. Client operating system knowledge equivalent to the below certifications would be of benefit.

**Module 10:
Configuring and
Troubleshooting
Network File and Print
Services**

- Configuring and Troubleshooting File Shares
- Encrypting Network Files with EFS
- Encrypting Partitions with BitLocker
- Configuring and Troubleshooting Network Printing

**Module 11:
Optimizing Data
Access for Branch
Offices**

- Branch Office Data Access
- DFS Overview
- Overview of DFS Namespaces
- Configuring DFS Replication
- Configuring BranchCache

**Module 12:
Controlling and
Monitoring Network
Storage**

- Monitoring Network Storage
- Controlling Network Storage Utilization
- Managing File Types on Network Storage

**Module 13: Recovering
Network Data and Servers**

- Recovering Network Data with Volume Shadow Copies
- Recovering Network Data and Servers with Windows Server Backup

**Module 14: Monitoring
Windows Server 2008
Network Infrastructure
Servers**

- Monitoring Tools
- Using Performance Monitor
- Monitoring Event Logs