

The Windows Server 2003 MCSE Core series has in one package all the training courses you need to pass the six core exams required for the Microsoft Certified Systems Engineer credential. The six courses deliver nearly 100 hours of training in the six core exam subjects. Courses meet or exceed all the latest Microsoft certification objectives. At the conclusion of this series, you'll be prepared to pass the four required networking system exams, the required client operating system exam (Windows XP Professional) and the required design exam (Active Directory Design). By successfully completing these exams and one elective exam of your choice, you'll be MCSE certified.

## **Active Directory Infrastructure**

### **Session 1**

#### Section A: AD Introduction

- Overview
- Objectives
- Overview Continued

#### Section B: AD Foundations & CIA Model

- Foundations Overview
- Active Directory
- Directory Service in AD
- Directory Service Char.
- AD Interoperability
- CIA Model
- CIA Responsibility

#### Section C: Logical & Physical Components

- AD Definitions
- Logical Components
- More Logical Component
- Logical Structure
- Physical Components
- Physical Structure

#### Section D: FSMO Roles of AD

- Master Roles Overview
- Understanding Schema
- Schema Master
- Schema Master Seizure
- Viewing Schema
- Schema User Class
- New User Attributes
- Role Transition

#### Section E: Additional FSMO Roles of AD

- Domain Naming Master
- Domain Naming Seizure
- Domain Specific Masters
- Domain Naming Controls
- Domain Specific Controls
- Infrastructure Roles

#### Section F: Uniqueness Rules & Global Catalog

- Uniqueness Rules
- Global Catalog
- Distinguished Name
- Relative Name
- Domain & Forest Summary

#### Section G: Administrative Tools

- Create New User Object
- New User Password
- Change New User Object
- Windows Support Tools
- ADSI Edit

- NetBIOS Commands

## **Session 2**

### Section A: DNS Concepts

- Installation Overview
- AD Authentication
- DNS Components
- DNS & AD
- DNS Structure
- DNS Namespace
- DNS Types
- DNS Queries

### Section B: DNS Zone Types

- Zone Types Overview
- Primary & Secondary
- Zone Transfers
- Stub Zone vs. Secondary
- Delegation & Integration
- Excumination & Identification
- Zone Identification
- Create & Integrate

### Section C: Installation Requirements

- Domains & Forests
- Checklist
- Preparation
- Operating Systems
- Information Required

### Section D: Installation Process

- Installation of AD
- Installation Upgrade
- ADPREP Forest
- ADPREP Domain
- Installation Specifics
- Installation Decisions

### Section E: AD Replica

- Add a Replica
- IFM
- IFM Rules
- Adding a Replica

### Section F: Validate Installation

- Validate Process
- Validate Tools
- Validate Steps
- Validation
- SYSVOL & SRV Records

### Section G: Post Installation Process

- Post Checklist
- Zone Integration
- New Group Policy
- SMB Signing Policy

## **Session 3**

### Section A: Forest & Domain Levels

- Forest Functional Levels
- Domain Functional Levels
- Enhancements
- Raising

## Section B: Trust & Decommissioning a DC

- Trust Relationships
- Relationship Types
- Create a Trust
- Trust Direction
- Trust Password
- Complete Trust
- Decommissioning Steps

## Section C: Organizational Unit Structure

- OU Overview
- OU's Role in AD
- OU Phases
- OU Hierarchy
- Organizational Factors
- Guidelines
- Creating OU's
- Using DS add

## Section D: OU Delegation

- Delegation of Control
- Security & Permissions

## Section E: Implementing Users & Groups

- Implementing Concepts
- SID, RID, & GUID
- SIDHistory
- SIDHistory Tool
- Exploring SID & RID

## Section F: User Acct & Group Types

- Account Types
- Group Types & Scopes
- Group Scopes
- Universal Groups
- Enterprise Model
- Single Domain Forest
- Creating & Managing
- User Admin Tools

## **Session 4**

### Section A: UPN & Password Policies

- UPN Suffixes
- Alternate UPN
- Password Strategies
- Securing Auth
- Password & Auth

### Section B: Group Policy Objects in AD

- GPO Settings
- GPO Concepts
- GPO Application
- GPO Planning

### Section C: Create, Configure, & Manage GPOs

- Exploring GPO's
- User Settings

### Section D: Tools & Delegating GPO

- GPO Tools
- Using GPO Tools
- Delegate Control
- Validate & Test

### Section E: Software Deployment with GPOs

- Windows Installer

- Software Life Cycle
- Deployment Process
- Assignment vs. Publishing
- Deployment

#### Section F: Software Management & Removal with GPOs

- Management Overview
- Management Options
- Removing Software

#### Section G: Replication in AD

- Sites & Replication
- Replication Notification
- Update Notification
- Replication Process
- Replication Conflicts

#### Section H:

- Intrasite & Intersite in AD
- Sites in AD
- Intrasite
- Intersite
- Intersite Replication
- Create Site
- Intrasite Replication

### **Session 5**

#### Section A: Security Settings

- GPO Editor
- Smart Card Auth
- User Certificates
- IP Security Policies
- Local Group Policy

#### Section B: Highly Available DNS

- DNS Role
- DNS in AD
- Global Catalog Servers
- Enable Global Catalog
- Universal Group Caching
- DC Best
- Capacity Planning

#### Section C: FSMO Rules

- Schema & Domain Naming
- PDC Emulator & RID
- Infrastructure Master
- Transfer Roles
- Seizing Roles
- ntdsutil

#### Section D: Backup, Analysis, & Monitor

- NTBackup
- Backing up AD
- Restoring AD
- Restore Process
- Replication Tools
- Performance Analysis
- Replication Monitor

#### Section E: Directory Serv Models & Bus Req

- Directory Serv Models
- Project Life Cycle
- AD Project Documents
- Resources

# Implementing Network Infrastructure

## Session 1

### Section A: Network Infrastructure Overview

- Required Skills
- Required Components
- Base Platform
- Network Planning

### Section B: Understanding TCP/IP

- TCP/IP History
- TCP/IP Protocol Suite
- OSI Model
- OSI Upper Layers
- OSI Middle Layers
- OSI Lower Layers
- Mapping TCP/IP to OSI
- TCP/IP Communications

### Section C: IP Addresses

- MAC Addresses
- IP Addresses
- Subnet Mask
- IP Address Clauses
- Subnet Mathematics

### Section D: Addressing Your Network

- Static Addresses
- Dynamic Addresses
- Assigning Addresses
- Assign Static Address
- Alternate Configuration
- Advanced IP Properties
- Configure Advanced Settings

### Section E: Dynamic Addressing

- APIPA
- Using APIPA
- DHCP
- DHCP Process
- DHCP Scopes
- DHCP Superscopes

### Section F: Implementing DHCP

- DHCP Authorization
- Create Scope
- Configure Client
- Create Reservation

## Session 2

### Section A: Managing DHCP

- Reconcile Scopes
- Backup DHCP
- DHCP Relay Agent
- Install Relay Agent
- Configure Relay Agent

### Section B: IP Address Troubleshooting

- DHCP Problems
- Troubleshooting Tools
- Conflict Detection
- DHCP Authorization
- Client IP Problems

### Section C: Name Resolution

- DNS History
- Authority/Delegation
- Zones/Domains
- DNS Namespace
- DNS Servers
- DNS Zone Types
- Section D: Install DNS Servers
- Install DNS
- Configure DNS Servers
- Configure DNS Options
- Server Properties
- Configure Forwarding
- Section E: Configuring Zones
- Choose Zone Type
- Active Directory Integration
- Create Zone
- Zone Properties
- Create DNS Records
- Delegate Domain
- Section F: Monitor & Troubleshoot DNS
- Monitoring DNS
- Event Viewer
- Debug Logging
- Nslookup
- Aging & Scavenging
- Troubleshoot Name Resolution

### **Session 3**

- Section A: Remote Access
- Types of Connectivity
- Configure Remote Access
- Configure Modem
- Configure RRAS
- RRAS Properties
- Ports
- Section B: Virtual Private Networks
- PPTP
- L2TP/IPSec
- Configure Security
- IP Settings
- Configure Client
- IPSec Settings
- Access Network
- Section C: Remote Access Policies
- RRAS User Authentication
- Configure Logging
- User Properties
- Remote Access Policies
- Configure Policies
- Policy Properties
- Verify Policy
- Section D: Internet Authentication Service
- RADIUS
- Authentication
- Configure IAS Server
- RADIUS Clients
- IAS Policies
- Authorize Server

- Configure
- Section E: Troubleshooting Remote Access
  - Common Problems
  - VPN Security
  - Packet Filters
  - Test Filters
- Section F: Routing Introduction
  - IP Routing
  - Routing Protocols
  - RIP Routing
  - OSPF Routing
  - Static Routing

## **Session 4**

- Section A: Implementing Routing
  - Managing IP Routing
  - Routing Protocols
  - Routing & Remote Access
  - Static Routing
  - Verify Static Route
  - Dynamic Routing
  - Configure Outbound
  - Configure Inbound
- Section B: Demand-Dial Routing
  - Usage
  - Configure DDR
  - Dial-In Setup
  - Dial-Out Setup
  - Two-way Connection
  - Dynamic Routes
  - Configure Remote
  - Demand-Dial Interface
- Section C: Secure Remote Access
  - VPNs
  - Corporate VPN
  - VPN Credentials
  - VPN Properties
  - IP Addressing
  - Branch VPN
  - Verify VPN Connection
  - Filtering/Rules
- Section D: ICS NAT
  - Address Translation
  - Connection Sharing
  - ICS/ICF Set-Up
  - Advanced Setting
  - ICS/ICF Services
- Section E: RRAS NAT
  - Implementation
  - Configuring
  - ICF/ICS Conflict
  - Enable RRAS NAT
  - Public/Private
  - NAT Properties
  - Using NAT
- Section F: Troubleshooting Routing
  - RRAS
  - Demand-Dial

- NAT
- Event Logging
- Trace Log

## **Session 5**

### Section A: Security Templates

- Baseline
- Add Security MMC
- Built-in Templates
- Create Template
- Implement Template
- Import Templates
- Applying Templates

### Section B: IPSec

- IPSec Process
- IPSec Protocols
- Transport Mode
- Tunnel Mode
- Integrity/Encryption
- Authentication

### Section C: Configure IPSec

- Implementation
- Actions/Rules
- Using IPSec
- IP Filter List
- Filter Actions
- Create Policy
- Assign Policy
- Verify

### Section D: Troubleshoot IPSec

- IP Security Monitor
- Tracking IPSec
- Solve/Verify
- View Policy
- Update Policy
- QuickMode

### Section E: Monitoring

- Tools
- Network Performance
- Network Diagnostics
- Network Monitor
- Capture VPN Traffic
- Analyze Data
- Troubleshooting Tools

### Section F: Troubleshooting Services

- Services
- Failure Actions
- Service Console
- SC Command

## **Managing a Network Environment**

### **Session 1**

#### Section A: Introduction

- Course Overview
- Windows 2003 Family
- Windows 2003 Editions
- Standard & Enterprise
- Datacenter & Web

## Section B: Installation

- Prerequisite Knowledge
- Hardware Requirements
- Clean Installations
- Upgrade Installations
- Upgrading NT 4.0 Domains
- NT 4.0 Upgrade Issues
- NT 4.0 Upgrade Order
- Upgrading to Active Directory

## Section C: Upgrading Windows 2000

- Active Directory
- Adprep/forestprep
- Adprep/domainprep
- Set Up Server 2003
- Windows Setup
- Verify Upgrade
- Functional Levels
- Domain/Forest Levels

## Section D: Hardware Support

- Server Class Hardware
- Standard/Wireless
- USB Devices
- View Devices
- Optical Drives
- Hardware Installation
- Driver Signing
- Unsigned Drivers

## Section E: Troubleshoot Hardware

- Hardware Problems
- Add Hardware Wizard
- Update Drivers
- Audio
- HAL/Computer Driver
- Other Tools

## **Session 2**

### Section A: Server 2003

- Hard Drives
- Basic Disks
- Dynamic Disks
- More on Basic Disks
- Basic to Dynamic
- Dynamic Conversion

### Section B: Basic Dynamic Volumes

- Volume Types
- Spanned vs. Striped
- Disk Management
- Simple Volume
- Spanned Volume
- Striped Volume

### Section C: Fault Tolerant Volumes

- Mirrored Volume
- RAID-5 Volume
- Configure Mirror
- Configure RAID-5

### Section D: Managing Volumes

- Disk Management Console
- Mount into Directory

- Storage Commands
  - DiskPart Utility
  - Defrag Utility
  - Schedule Defrag
- Section E: File Systems

- FAT/FAT32
- NTFS
- NTFS-Based Features
- Format NTFS
- Format FAT32
- File Permissions

Section F: Computer Accounts

- Access Server Resources
- Join Domains
- Create Accounts
- Log onto Domain
- Computer Management
- Computer Account Issues
- DNS Settings
- Reset Account

### **Session 3**

Section A: User Accounts

- Basic Building Block
- Authentication
- Create Users
- Local User Account
- Active Directory Users
- User Properties
- Verify Resource Access

Section B: Advanced User Accounts

- Create Users Quickly
- Create Template
- Copy Template
- net User Command
- dsadd User Command

Section C: User Account Properties

- Properties
- Account Tab
- Profile Tab
- Account & Password Policies
- Account Lockout Policy

Section D: User Profiles

- Roaming Profile
- Mandatory Profile
- Add Roaming Profile
- Save Profile
- Add Mandatory Profile

Section E: Groups

- Group Categories
- Group Scope
- Windows 2000 Mixed Mode
- Domain Local Group
- Global Group
- Universal Group
- Domain Groups
- Forest Groups

Section F: Managing Groups

- Control Access
- Add Users
- Create Group
- Change Group Scope
- Move Users or Groups
- AD Automation

## **Session 4**

### Section A: NTFS Permissions

- Local File Access
- Permission Inheritance
- Grant Permissions
- Advanced Permissions
- Modify Inheritance
- Effective Permissions

### Section B: Share Permissions

- Create Share
- Real World Permissions
- Modify Permissions
- Troubleshooting

### Section C: NTFS Features

- Ownership
- View Ownership
- Take Ownership
- Compression
- Quotas
- Apply Compression
- Set Quota
- Test Quota Entries

### Section D: Printers

- Permissions
- Print Devices
- Sharing
- Setting Up
- Install on Server
- Share Permissions
- Install on Client
- Manage Printers
- Print Queue
- Print Server Properties

### Section E: Windows Licensing

- Site Licensing
- Licensing Tool
- Verify Licensing
- Licensing Server
- Licensing Modes

### Section F: Software Update Services

- Install SUS
- Administrative Interface
- Service Packs

## **Session 5**

### Section A: Remote Administration

- Remote Tools
- Install Help
- Add Computer Management
- Remote Assistance
- Using Remote Assistance

### Section B: Remote Desktop

- Implementing
- Connection
- Enable & Add Users
- Remote Connection
- Options
- Remote Control
- Section C: Web Server
- Web Services
- IIS 6.0
- Install IIS
- Manage Server
- Securing IIS
- Section D: Monitoring Servers
- Monitoring Tools
- System Monitor
- Remote Monitoring
- Performance Logs
- Log/Schedule Properties
- Create Logs/Alerts
- View Logs
- Performance Guidelines
- Section E: Shadow Copies
- Requirements
- Enable Shadow Copies
- Settings
- Restore Shadow Copies
- Section F: Backup
- Backup Options
- Removable Storage
- Backup Process
- Advanced Options
- Scheduled Backups
- Restore Options
- Restore Active Directory
- Restore Data
- Section G: Disaster Recovery
- Basic Elements
- Redundancy
- ASR
- Using ASR

## **Planning Network Infrastructure**

### **Session 1**

- Section A: Introduction
- Connectivity
- RRAS
- Availability
- Security
- Components
- Section B: TCP/IP Networking
- Network Planning
- IP Addressing
- IP Address Classes
- Subnet Mask
- Addressing Scheme
- Section C: Network Availability
- Subnetting Requirements
- Network Planning

- Availability
  - Redundancy
- Section D: Network Performance
- Affecting Factors
  - Physical & Logical Subnets
  - Ethernet Usage - 10 Mbps
  - Ethernet Usage - 100/1000 Mbps

Section E: Planning for Growth

- Requirements
- Traffic Flow
- How to Plan

Section F: DHCP Planning

- Config Methodologies
- DHCP Features
- Integration Benefits
- LAN
- Routed Networks
- Planning
- Non-Microsoft Clients

Section G: Troubleshooting TCP/IP Addressing

- DHCP Performance
- Lease Duration
- DHCP Security & Issues
- Troubleshooting Tools
- Traffic Monitoring

## **Session 2**

Section A: Internet Connectivity

- Connectivity Solutions
- Connection Components
- Using NAT
- Secure Perimeter

Section B: Network Address Translation

- Define Translation
- NAT Solution
- NAT Server Options
- IP Filters
- Address Pools/Ports
- VPN Tunnels
- Availability/Performance

Section C: Internet Security & Acceleration

- Planning Decisions
- Filtering & Security Features
- Additional Features
- Design Options
- Design Requirements
- Active Directory
- Perimeter Design

Section D: Enhancing ISA Server

- Enhance Availability
- Clustering Type
- Caching Method
- Organize Hierarchy
- Distribute IP Traffic

Section E: Clustering Technologies

- NLBS & CLB
- Server Clusters
- X Node Clustering
- Clustering Components

- Failover/Failback
- Cluster Management
- Section F: Planning RRAS
- Planning Decisions
- Isolation
- Integration
- Protocol Support
- Routing Solution
- Solution Integration

### **Session 3**

#### Section A: RRAS Advanced Features

- RRAS Filtering
- Wireless Standards
- Wireless Enhancements
- 802.1x Authentication
- Wireless Security
- Enhancing Performance

#### Section B: IP Troubleshooting

- Local Clients
- Reachability Issues
- NAT Issues
- Routing Issues
- Strategy for Routing
- Outside-In & Inside-Out
- Divide-by-Half

#### Section C: Secure Remote Access

- IPsec
- Connect with IPsec
- IPsec Mode
- VPN Tunnels
- Tunneling Protocol
- VPN Compulsory Tunnel
- VPN Voluntary Tunnel
- Tunneling Comparisons

#### Section D: RAS Authentication

- Planning Decisions
- Authentication Methods
- Kerberos
- Certificate-based
- Smart Cards
- NTLM/Clear-text
- Digest/SSL/RADIUS
- RAS Policy

#### Section E: Planning IPsec Policy

- IPsec Policy
- Requirements · Components
- Identify Needs
- IPsec Phases
- Negotiation Policies
- Policy Filters

#### Section F: Planning IPsec Deployment

- Authentication Types
- Digital Certificates
- Certificate Use
- Deployment Options
- GPO Deployment
- Processing Order

- Effective Policy

## **Session 4**

### Section A: IPSec Troubleshooting

- IPSec Monitor
- IP Security Management
- Users & Computers
- RSoP
- Event Viewer
- Troubleshooting Process

### Section B:

- DNS
- Design Process
- DNS Features
- AD Integrated Zone
- Traditional Zone
- Choosing Zone Type
- Connecting to Internet

### Section C: Integrating DNS

- Options
- Namespace
- First DNS Server
- Secure DNS
- Secure Zone Replication
- DNS Availability
- DNS Performance
- DNS Troubleshooting

### Section D: Planning WINS

- WINS Solution
- Routed Network
- Client Considerations
- Multiple Servers
- Secure WINS
- WINS Availability
- WINS Performance

### Section E: Security Design Process

- Server Roles
- Security Categories
- Identify Risks
- Identify Threats
- Business Requirements
- System Requirements

### Section F: Security Baseline

- Baseline Strategy
- Baseline Server Roles
- Physical Security
- Passwords
- Hardware
- Security Templates
- Verify & Analyze
- Deploy & Update

## **Session 5**

### Section A: Perimeter Security

- Router Security
- External Attacks
- DoS/Port Scanning

- Firewalls
- DMZ Subnets
- Three-Prong Approach
- Midground Screen
- Section B: Securing Public Servers
- Vulnerabilities
- Public Server Roles
- HTTP/FTP Server
- DNS Server
- Messenger Server
- Application Server
- VPN Server
- Terminal Server
- Section C: Authentication/Encryption
- Transmission Options
- VPN Connection
- Design Decisions
- Section D: Certificates
- PKI
- Reliability
- Requirements
- CA Distribution
- Issuing CAs
- Commercial CAs
- Private CAs
- Section E: CA Design
- Guidelines
- Planning CA Hierarchy
- User Accounts
- Mapping
- Section F: Planning for Administration
- Planning Aspects
- Remote Administration
- Terminal Services
- Monitoring Performance
- Monitoring Services
- Backup/Recovery
- Media Handling
- Data/System Protection

## **Active Directory & Network Infrastructure Design**

### **Session 1**

- Section A: Introduction
- Prerequisites
- Course Objectives
- Successful Design
- Design Team
- Documentation
- Section B: AD Design Elements
- Components
- Role of AD
- Life Cycle
- AD Design Team
- Design Tasks
- Design Components
- AD Design Guidelines
- Section C: Domain Implication
- Gathering Domain Data

- Infrastructure/Administration
  - Design Priorities
  - Data Guidelines
- Section D: Logical Forest Design
- Forest Design Focus
  - Forest Design Models
  - Forest Strategies
  - Forest Guidelines

Section E: Domain Design

- Domain Strategies
- Forest Root Domain
- Security Considerations
- Domain Guidelines

Section F: DNS & Trust Relations

- DNS Namespace
- DNS Strategies
- DNS Guidelines
- Trust Strategies
- Categories/Directions
- Trust Types
- Trust Guidelines

Section G: Migration Issues

- Migration Strategies
- NT 4.0
- Windows 2000
- Migration Guidelines

Section H: Schema Management

- Schema Strategies
- Schema Guidelines

Section I: Site Infrastructure

- Site Design Process
- Gather Site Data
- Data Guidelines

**Session 2**

Section A: Site Design

- Site Selection
- Site Design Guidelines
- Replication Considerations
- Site Link Considerations
- Link Speeds/Costs
- Site Link Bridges
- Replication Guidelines

Section B: Placing Domain Controllers

- DC Considerations
- Hardware Requirements
- Disk Space/Memory
- Forest Root DCs
- DC Guidelines

Section C: GCs & FSMOs

- Global Catalog Servers
- GC Guidelines
- Operations Master
- Operation Master Roles
- Forest-Level Guidelines
- Domain-Level Guidelines

Section D: Administrative Structure

- Administrative Issues
- Organizational Resources

- Administrative Resources
- Gathering Admin Data
- Section E: Administration Model
- Types of IT Model
- Security Policy/Guidelines
- Network Admin Model
- Organizational Units
- Delegation of Control
- Inheritance
- Group Policy
- OU Guidelines
- Section F: Computer/User Accounts
- Account Strategies
- Naming Conventions
- Password Policy
- Policies for AAA
- Security Groups
- Account Guidelines

### **Session 3**

- Section A: Group Policy
- Design Elements
- Security Requirements
- Interoperability/Access
- Administrative Requirements
- Software Deployment
- Structure Consideration
- GP Design Guidelines
- Section B: GP Structure
- GPO Considerations
- Deployment Strategy
- GP Settings
- GP Inheritance
- GP Structure Guidelines
- Section C: OU Structure
- Group Policy OU Design
- Group Policy OU Influence
- Admin Design Structure
- OU Creation Guidelines
- Section D: GPO Management
- GPO Requirements
- GPO Administration
- Change Management
- Policy Mgt. Guidelines
- Section E: Name Resolution
- Assess Current DNS
- Network Requirements
- Host Requirements
- NetBIOS Resources
- Resolution Guideline
- Section F: DNS Interoperability
- Integration Options
- BIND Strategies
- WINS Guidelines
- DHCP Guidelines
- Section G: WINS Replication
- Replication Strategy
- Replication Guidelines

## Section H: Client Resolution

- DNS Server Option
- DNS Stub Zones
- DNS Naming
- DNS Client Guidelines

## **Session 4**

### Section A: Network Infrastructure

- Design Elements
- Network Design Team
- Design Tasks
- AD Support
- Network Specifications
- Infrastructure Guidelines

### Section B: IP Addressing

- Addressing Scheme
- IP Subnetting
- Public vs. Private
- Address Allocation
- IP Address Guidelines
- Subnet Guidelines

### Section C: DHCP Design

- DHCP Infrastructure
- DHCP Server Locations
- DHCP Server Redundancy
- DHCP Server
- DHCP Guidelines

### Section D: Change Management

- Infrastructure Change
- Change Elements
- Monitoring Network
- Analyze Data

### Section E: Network Connectivity

- Connectivity Requirements
- Security Requirements
- Network Controls
- Connectivity Guidelines

### Section F: Connection Types

- Evaluate Needs
- Connections Options
- Internation Connections
- Business Requirements
- Connection Guidelines

### Section G: Connectivity Infrastructure

- Connectivity Design
- Interconnection Devices
- Redundancy Design
- Site-to-Site
- VPN Options
- Connectivity Guidelines

## **Session 5**

### Section A: Internet Infrastructure

- Internet Connectivity
- Firewall Design
- Securing Firewall Replication
- Extranet Design

- I-net Connectivity Rules
- Section B: Network Access Design
  - Network Access Strategy
  - Determine Access Types
  - Business Requirements
  - User Requirements
  - Security Requirements
  - Interoperability Requirements
  - Network Access Guidelines
- Section C: Remote Access Security
  - Security Design
  - Authentication Methods
  - Encryption Methods
  - Remote Access Profiles
  - Remote Access Monitoring & Auditing
  - Wireless Access Methods
  - Remote Access Guidelines
- Section D: Remote Access Infrastructure
  - Remote Access Design
  - RAS Server Placement
  - VPN Server Placement
  - Authentication Server Placement
  - User Environment Config
  - User Education
  - Remote Access Infrastructure Guidelines
- Section E: Wireless Access Design
  - Wireless Infrastructure
  - Wireless Standards
  - Wireless Security
  - Wireless Hardware
  - Wireless Access Guidelines

## **Windows XP Professional Session 1**

- Section A: Introduction
  - Installing & Using Windows XP
  - XP Networking
  - Hardware Requirements
  - Hardware Reality
- Section B: Installing Windows XP
  - Installation Modifiers
  - GUI-Mode Installation
  - Dynamic Update
  - Product Activation
- Section C: Upgrading Windows XP
  - Requirements
  - Upgrade Issues
  - Perform Upgrade
  - System Compatibility
  - Logging onto Windows XP
- Section D: Migrating User Settings
  - File & Settings Transfer Wizard
  - User Transfer Wizard
  - User State Migration Tool
- Section E: Unattended Installation
  - Setup Manager
  - Using Setup Manager
  - User Specific Information
  - Advanced Settings

- Cloning Windows XP
- Sysprep Options
- Section F: Remote Installation Services
  - Setting Up RIS
  - RIS Permissions
  - Installing with RIS
  - RIS Limitations
- Section G: Installation Troubleshooting
  - Install Problems
  - Check HCL
  - ACPI Problems
  - Switch HAL

## **Session 2**

### Section A: User Accounts

- Workgroup vs. Domain
- Create & Manage Users
- User Accounts in Workgroup
- Manage Workgroup Accounts
- Domain User Accounts
- Manage Domain Accounts

### Section B: Groups

- Local Groups & Permissions
- Built-in & System Groups
- Working with Groups
- Planning Groups

### Section C: Logging On to Windows XP

- Domain Environment
- Workgroup Environment
- Fast User Switching
- Enable Fast User Switching
- Troubleshooting Logon
- Logon Caching

### Section D: User Profiles

- Change User Profiles
- Contents of User Profiles
- Roaming User Profiles
- Enable Roaming Profiles
- Create Profile
- Copy Profile
- Set Roaming Profiles

### Section E: Local Security Policy

- Manage Account Policies
- User Rights Assignments
- Security Options
- Use Secpol.msc
- Security Templates
- Add & Remove Console Snap

In

- Preconfigured Templates

### Section F: Group Policy

- Local & Domain Policy
- Group Policy MMC
- Windows XP Group Policy
- Computer Policy
- User Policy
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## **Session 3**

#### Section A: Auditing

- Edit Audit Policy
- Plan Audit Policy
- Requirements for Auditing
- Establish Auditing
- Event Viewer

#### Section B: Windows Installer

- Benefits
- Publish vs. Assign
- Troubleshoot Windows Installer

#### Section C: User Interface

- Configuring the Desktop
- Start Menu
- My Computer
- Display Properties
- Control Panel

#### Section D: Interface Options

- Accessibility Services
- Configure Accessibility Services
- Multi-language Support
- Regional Settings Control Panel

#### Section E: Hardware Installation

- Device Drivers
- Device Manager
- Signed Drivers

#### Section F: Hardware Support

- Display Devices
- Troubleshooting Video Problems
- Fax Support
- Install Fax Service
- Setup Fax Service
- USB & Firewire Support
- USB Root Hub & Universal Host Controller

#### Section G: Mobile Computer Hardware

- Power Management
- Configure Power Management
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#### Section H: Storage Devices

- Hard Disk Support
- Dynamic Volumes
- Disk Management
- Create Volume
- Upgrade to Dynamic Disk
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### **Session 4**

#### Section A: File Systems

- NTFS
- Convert to NTFS
- File System Maintenance
- File System Tools

#### Section B: Simple NTFS

- NTFS Features
- Simple File Sharing
- Limits of Simple File Sharing
- Protecting Folders

#### Section C: NTFS

- NTFS Permissions

- Planning Permissions
- Add Groups to Permission List
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- NTFS Ownership
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- Section D: NTFS Features
- NTFS Compression
- Compressing Files
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- EFS Features
- Encrypt Files
- Remote Encryption
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- Section E: EFS Recovery
- Recover Encrypted Data
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- Lost Certificates
- EFS & Backup Program
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- Section F: Networking Setup
- NWLink
- TCP/IP
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- Network Connections Control Panel
- TCP/IP Configuration
- DNS & Wins
- TCP/IP Options
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## **Session 5**

- Section A: Network Troubleshooting
- Repair Network Connection
- Network Interface
- Protocols
- TCP/IP Troubleshooting
- PING, TRACERT & NBTSTAT
- Base Connectivity
- NETSTAT
- Section B: Sharing Resources
- Sharing Folders & Files
- Enable File Sharing
- View Local Security Policy
- Set Share Permissions
- Permission Hierarchy
- Set Permission for Sharing
- Set NTFS Security
- Section C: Monitoring Shared Resources
- Computer Management MMC
- Run As Option
- Managing Shares
- Connect to Remote Shares
- Section D: Offline Folders
- Configure Offline Folders
- Make Files Available Offline
- Network Connection Lost
- Network Connection Established
- Folder Options

- Synchronization Manager
- Section E: Configure Printers
  - Sharing Printers
  - Install a Printer
  - Add Printer Wizard
  - Printer Sharing
  - Printer Permission
  - Internet Printing
  - Locate & Connect to Internet Printers
- Section F: Managing Printers
  - Print Server Properties
  - Print Queue
  - Printer Properties
  - Print Priorities
  - Spooler
- Section G: Remote Connectivity
  - Dial-up Networking
  - New Connection Wizard
  - VPN
  - L2TP Connections
  - Setup VPN Connection
  - VPN Properties

## **Session 6**

- Section A: Internet Connection Utilities
  - Internet Connection Sharing
  - Options for ICS
  - ICS Discovery & Control
  - Install ICS
  - Network Setup Wizard
  - Enable ICS
  - Universal PnP
  - Internet Connection Firewall
  - Log Files & Third Party Firewall
  - Enable ICF
  - Setup NAT & ICF Security
- Section B: Web Services
  - Web Server
  - Install IIS
  - Internet Explorer Security
  - Accessing IIS Local Host
  - Security Settings
  - Manage IIS
- Section C: Remote Desktop
  - Terminal Services
  - Configure Remote Desktop
  - Connect to Remote Desktop
  - Web-based Remote Desktop
  - Using Remote Desktop on the Web
  - Remote Assistance
- Section D: System Performance
  - Application Performance
  - Performance Options
  - Program Compatibility
  - Performance Monitoring
  - Monitor Disk & Network
- Section E: Windows Backup
  - Backup Permissions

- Using Windows Backup
  - Backup Options
  - Scheduled Backups
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- Section F: Disaster Recovery
- Safe Boot Options
  - Last Known Good Configuration
  - MSCONFIG Utility
  - Recovery Console
  - Limitations
  - Enable Recovery Console
  - Access Recovery Console