



Windows Server Administration

Duration: 4 Days

Who should attend:

This course is aimed at 1st and 2nd line IT Support Technicians who need to implement, support, troubleshoot and manage Windows Servers in a domain environment.

This course will teach you about the different versions of Windows server you can implement as well as how to install them. You will also learn the basics of Active Directory and how domains fit together. You will learn how to manage users, groups, and other resources in Active Directory. You will learn how to configure networking on the server, including setting up and managing DHCP scopes and DNS server settings. You will also learn how to manage storage devices and configure them for redundancy and security. You will learn how to interrogate the event logs for troubleshooting and security auditing as well as setting up for remote administration and print management. Finally you will learn about the disaster recovery options in Windows server.

Pre-requisites:

Delegates should have a good working knowledge of managing Windows Desktops as can be gained from attending our **Windows Desktop Support** course.

Content

Installation and Deployment

- Pre-Installation Tasks
- Standard vs Datacenter
- Core vs Desktop Experience
- Installing / Upgrading to Windows 2019
- Installing Windows 2019 Server
- Disk Partitioning Recommendations
- Changing the Installation Type
- Installation Troubleshooting

Overview – Using Core Edition

- Initial Core Server Configuration
- Running the Server Config Utility
- Initial Configuration Settings
- Configuring Remote Access to Core Edition
- Performing Initial Configuration Tasks

Server Manager Utility

- Server Manager Dashboard
- Using the Windows Admin Center
- Accessing Server Manager
- Adding/Removing Roles
- Adding/Removing Features



Windows Server Administration

Introducing Active Directory

Workgroups vs Domains
Members Servers vs Domain Controllers
Introducing Trees and Forests
Active Directory Physical Structure
Installing Active Directory on Windows 2019 Servers
Domain and Forest Functional Levels
Troubleshooting the Installation of Active Directory

Active Directory Recycle Bin

Overview – The Active Directory Recycle Bin
Enabling the AD Recycle Bin
Recovering Objects with the AD Recycle Bin

Creating and Managing User Accounts

Introduction to User Accounts
Guidelines for New User Accounts
Creating Local User Accounts
Creating and Configuring User Accounts
Setting Properties for Domain User Accounts
Customizing User Settings with User Profiles
Best Practices

Managing Resource Access by Using Groups

Introduction to Groups
Configuring Universal Groups
Configuring Global Groups
Domain Local Groups
Security v Distribution Groups
Implementing Groups in a Workgroup
Implementing Groups in a Domain

Introduction to TCP/IP

Introduction to TCP/IP
The History of TCP/IP
IP Address Classes – A, B and C
Subnetting

Configuring IPv6

TCP/IP Overview of IPv6
Coexistence with IPv4
Transitioning from IPv4 to IPv6
Configuring a New IPv6 Network and Client
Describe the benefits and considerations of IPv6
Troubleshoot IPv6 connectivity



Windows Server Administration

Configuring and Troubleshooting DNS

- Installing the DNS Server Role
- Configuring the DNS Server Role
- Configuring a DNS Infrastructure
- Troubleshooting DNS

Dynamic Host Configuration Protocol (DHCP)

- The DHCP Server Role
- The 4-way Handshake Process
- Installing and Authorizing the DHCP Server Role
- Configuring DHCP Scopes and Options
- Managing a DHCP Database
- Monitoring and Troubleshooting DHCP
- Securing DHCP

Disk Management

- Server 2019 Disk Management Overview
- File systems supported
- Basic V Dynamic Storage
- Creating Simple Storage Volumes
- Creating Spanned, Striped, Mirrored and RAID 5 Volumes

NTFS Security and Permissions

- NTFS Permissions
- Setting NTFS permissions on files and folders
- Sharing Resources
- Setting Share Level Security Permissions
- Combining NTFS and Share Level Permissions

BitLocker Volume Encryption

- What is BitLocker?
- Disk Partitioning for BitLocker
- Trusted Platform Module (TPM)
- Installing and Configuring BitLocker
- Using Bit Locker-To-Go



Windows Server Administration

Monitoring and Optimizing Performance

- Monitoring Event Logs
- Using Task Manager to Monitor System Resources
- Using System Monitor to Monitor System Performance
- Using System Alerts
- Identify counters to monitor
- Optimizing Performance
- Resolving Performance Bottlenecks
- Performance Logging

Implementing Security Auditing

- Auditing Windows Server 2019
- Configuring Auditing
- Auditing File and Folder Access
- Auditing Logon Events
- Auditing Printers
- Viewing/Examining Audit Logs

Remote Administration

- Using Remote Desktop
- Overview - Remote Desktop Services (RDS)
- Server Manager Remote Management
- Remote Desktop for Administration
- Installing/Configuring RDS
- Introduction to Remote Administration
- Remote Administration Options

Printing

- Overview – The Print Management Console
- Installing the Print Management Console
- Configuring the Print Management Console
- Adding New Printers
- Configuring Printing Devices
- Configuring Printer Permissions

Disaster Protection

- Introduction to Disaster Protection
- Using Windows Server Backup
- Backing Up and Restoring Data
- PowerShell WBADMIN Commands
- Using Disaster Recovery Tools
- Repair Mode Boot Options
- Repairing Server 2019