

# Windows server 2019 administration

A 5 day **Hands on** training course



## Description

This five-day instructor-led course is designed primarily for IT professionals who have some experience with Windows Server. It is designed for professionals who will be responsible for managing identity, networking, storage and compute by using Windows Server 2019, and who need to understand the scenarios, requirements, and options that are available and applicable to Windows Server 2019. The course teaches IT professionals the fundamental administration skills required to deploy and support Windows Server 2019 in most organizations.



## Key outcomes

By the end of the course delegates will be able to:

- ✓ Administrate Windows Server 2019.
- ✓ Configure file servers and storage.
- ✓ Manage Hyper-V virtualization and containers.
- ✓ Implement HA and disaster recovery solutions.
- ✓ Implement service monitoring and performance monitoring, and apply troubleshooting.
- ✓ Perform upgrades and migration related to AD DS, and storage.



## Training Approach

This structured course uses Instructor Led Training to provide the best possible learning experience. Small class sizes ensure students benefit from our engaging and interactive style of teaching with delegates encouraged to ask questions throughout the course. Quizzes follow each major section allowing checking of learning. Hands on sessions are used throughout to allow delegates to consolidate their new skills.



## Details

### Who will benefit?

Technical staff working with Windows server 2019.

### Prerequisites

TCP/IP foundation for engineers.  
Some Windows experience

**Duration:** 5 days

**Overall rating:**

**New course**

### Generic Training



Generic training complements product specific courses covering the complete picture of all relevant devices including the protocols "on the wire".

*"Friendly environment with expert teaching that teaches the why before the how."*  
G.C. Fasthosts

### Small Class Sizes



We limit our maximum class size to 8 delegates; often we have less than this. This ensures optimal interactivity between delegates and instructor.

*"Excellent course. The small class size was a great benefit..."*  
M.B. IBM

### Hands On Training



The majority of our courses use hands on sessions to reinforce the theory.

*"Not many courses have practice added to it. Normally just the theoretical stuff is covered."*  
J.W. Vodafone

### Our Courseware



We write our own courses; courseware does not just consist of slides and our slides are diagrams not bullet point text.

*"Comprehensive materials that made the course easy to follow and will be used as a reference point."*  
V.B. Rockwell Collins

### Customise Your Course



Please contact us if you would like a course to be customised to meet your specific requirements. Have the course your way.

*"I was very impressed by the combination of practical and theory. Very informative. Friendly approachable environment, lots of hands on."*  
S.R. Qinetiq

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## Course Content

### Windows server administration overview

Windows server administration principles and tools, Introducing Windows Server 2019, Windows Server Core Overview.

**Lab:** Deploying and configuring Server Core, Implementing and using remote server administration.

### Identity Services in Windows server

AD DS, Windows Server domain controllers, Azure AD, Group Policy, Active Directory Certificate Services.

**Lab:** Deploying a new domain controller on Server Core, Configuring Group Policy, Deploying and using certificate services.

### Network Infrastructure services in Windows server

DHCP, DNS services, IPAM.

**Lab:** Deploying and configuring DHCP, Deploying and configuring DNS.

### File Servers and Storage management

Volumes and file systems, sharing in Windows Server, Storage Spaces in Windows Server, Data Deduplication, Iscsi, Distributed File System.

**Lab:** Implementing Data Deduplication, Configuring iSCSI storage, Configuring redundant storage spaces, Implementing Storage Spaces Direct.

### Hyper-V virtualization and containers

Hyper-V in Windows Server, Configuring VMs, Securing virtualization in Windows Server, Containers in Windows Server, Overview of Kubernetes.

**Lab:** Creating and configuring VMs, Installing and configuring containers.

### High Availability in Windows Server

Planning for failover clustering implementation, Creating and configuring failover cluster, stretch clusters, High availability and disaster recovery solutions with Hyper-V VMs.

**Lab:** Configuring iSCSI storage, Configuring a failover cluster, Deploying and configuring a highly available file server, Validating the highly available file server deployment .

### Disaster recovery in Windows Server

Hyper-V Replica, Backup and restore infrastructure in Windows Server.

**Lab:** Implementing Hyper-V Replica, Implementing backup and restore with Windows Server Backup.

### Windows Server security

Credentials and privileged access protection, Hardening Windows Server, Just Enough Administration in Windows Server, Securing and analyzing SMB traffic, Windows Server update management.

**Lab:** Configuring Windows Defender Credential Guard, Locating problematic accounts, Implementing LAPS.

### Remote Desktop Services in Windows Server

Remote Desktop Services, session-based desktop deployment, personal and pooled virtual desktops.

**Lab:** Implementing RDS, Configuring RemoteApp collection settings, Configuring a virtual desktop template.

### Remote access and web services in Windows Server

Overview of RAS in Windows Server, Implementing VPNs, Implementing NPS, Implementing Always On VPN, Implementing Web Server in Windows Server.

**Lab:** Implementing Web Application Proxy, Implementing VPN in Windows Server, Deploying and Configuring Web Server.

### Monitoring, performance, and troubleshooting

Windows Server monitoring tools, Performance Monitor, Monitoring event logs for troubleshooting.

**Lab:** Establishing a performance baseline, Identifying the source of a performance problem, Viewing and configuring centralized event logs, Identifying the source of a performance problem, Describe monitoring tools and performance monitoring in Windows Server, Describe event logging and perform event logging monitoring for troubleshooting purposes.

### Upgrade and migration in Windows Server

AD DS migration, Storage Migration Service, Windows Server migration tools.

**Lab:** Selecting a process to migrate server workloads, Planning how to migrate files by using Storage Migration Service.

