

## Windows Server 2022 : Installation, Storage and Compute

Duration : 5 Days

### Overview

This five-day 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 storage and compute by using Windows Server 2022, and who need to understand the scenarios, requirements, and storage and compute options that are available and applicable to Windows Server 2022. This course is also applicable to learners using Windows Server 2016 or Windows Server 2019.

### Target Audience

This course is intended for IT professionals who have some experience working with Windows Server, and who are looking for a single five-day course that covers storage and compute technologies in Windows Server 2022, 2019 or 2016. This course will help them update their knowledge and skills related to storage and compute for Windows Server 2022, 2019 or 2016.

### Prerequisites

- A basic understanding of networking fundamentals.
- An awareness and understanding of security best practices.
- An understanding of basic AD DS concepts.
- Basic knowledge of server hardware.
- Experience supporting and configuring Windows client operating systems such as Windows 8 or Windows 10.
- Additionally, delegates would benefit from having some previous Windows Server operating system experience, such as experience as a Windows Server systems administrator.

### Objectives

Upon successful completion of this course delegates will be able to:

- Prepare and install a Server Core installation, and plan a server upgrade and migration strategy.
- Describe the various storage options, including partition table formats, basic and dynamic disks, file systems, virtual hard disks, and drive hardware, and explain how to manage disks and volumes.
- Describe enterprise storage solutions, and select the appropriate solution for a given situation.
- Implement and manage Storage Spaces and Data Deduplication.
- Install and configure Microsoft Hyper-V, and configure virtual machines.
- Deploy, configure, and manage containers.
- Describe the high availability and disaster recovery technologies in Windows Server.
- Plan, create, and manage a failover cluster.
- Implement failover clustering for Hyper-V virtual machines.
- Configure a Network Load Balancing (NLB) cluster, and plan for an NLB implementation.
- Create and manage deployment images.
- Manage, monitor, and maintain virtual machine installations.
- Plan and deploy Remote Desktop Services



## Course Content

### Installation, Upgrading and Migration

Describes the new features of Windows Server 2022, and explains how to prepare for and install Windows Server 2022, including Server Core. This module also describes how to plan a server upgrade and migration strategy, and explains how to perform a migration of server roles and workloads within and across domains. Finally, this module explains how to choose an activation model based on your environment characteristics.

### Storage Services

Explains how to manage disks and volumes in Windows Server 2022, different classifications of RAID and configuring Server Message Block (SMB).

### Storage Migration and Software-Defined Storage

Explains how to implement the storage migration services and cutover data to new servers without interruption. manage disks and volumes in Windows Server 2022. It also explains how to implement and manage Storage Spaces and how to implement Data Deduplication. This module also covers how to implement Storage Replica in Windows Server 2022.

### Hyper-V Virtualisation

Provides an overview of Hyper-V and virtualization. It explains how to install Hyper-V, and how to configure storage and networking on Hyper-V host servers. Additionally, it explains how to configure and manage Hyper-V virtual machines.

### Containers

Provides an overview of containers in Windows Server 2022. Additionally, this module explains how to deploy Windows Server and Hyper-V containers. It also explains how to install, configure, and manage containers by using Docker.

### Implementing Network Load Balancing

Provides an overview of NLB and NLB clusters. It also explains how to plan and configure an NLB cluster implementation.

### Windows Server 2022 Failover Clustering

Explains how to plan for failover clustering. It also explains how to create, manage, and troubleshoot a failover cluster. Additionally, it explains how to implement high availability and stretch clustering for a site.

### Failover clustering with Hyper-V

Describes how Hyper-V integrates with failover clustering. It also explains how to implement Hyper-V virtual machines in failover clusters. Additionally, it describes the key features for virtual machines in a clustered environment.

### Remote Desktop Services

Explains how to plan for Remote Desktop Services (RDS) deployment. It also explains how to implement Session-based and Virtual desktop-based sessions. It also explains the various RDS roles and how to create and manage features of RemoteApp Programs, RD Connection Broker, RDS Licensing, RD Gateway, RD Web Access.

### Creating and Managing Deployments

Provides an overview of the Windows Server 2022 image deployment process. It details the requirements to install and configure Windows Deployment Services. It also explains how to create and manage deployment images by using the Microsoft Deployment Toolkit (MDT), Windows ADK and characteristics of High-Touch Installation (HTI), Lite-Touch Installation (LTI) and Zero-Touch Installation (ZTI).