INSTALLATION, STORAGE AND COMPUTE WITH WINDOWS SERVER (55324)

Course Code: 821560

This five-day course is intended for information technology (IT) professionals who have basic knowledge of Windows Server.

This five-day course is intended for information technology (IT) professionals who have basic knowledge of Windows Server. It is designed for professionals who have primary responsibility of managing storage and computing by using Windows Server. Professionals who need to understand the scenarios, requirements, and storage and compute options that are available and applicable to Windows Server.

What You'll Learn

- Configure and install Windows Server
- Manage Server Core, server upgrade and migration strategy
- Understand storage options
- Manage partition table formats
- Manage basic and dynamic disks, file systems
- Manage virtual hard disks, and drive hardware
- Manage disks and volumes
- Select and manage proper storage solutions for a specific scenario
- Storage Spaces and Data Deduplication implementation
- Configure and Manage Microsoft Hyper-V, virtual machines and Hyper-V containers
- Configure disaster recovery technologies
- Manage and Configure failover clustering for Hyper-V virtual machines
- Configure, plan and implement a Network Load Balancing (NLB)
- Work with deployment images

Who Needs to Attend

This course is intended for information technology (IT) professionals who need to improve their expertise in Windows Server in the area of storage and compute functionality.

Prerequisites

- Extensive knowledge of and experience with Windows Server 2012 R2 and Windows Server.
- Detailed understanding of storage technologies, such as SAN, iSCSI, and Fibre Channel.
- Detailed understanding and experience with implementing failover clustering and Hyper-V.
- Experience with business continuity management, including data backup, restoration, and high availability.
- Experience with Windows PowerShell.

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CLASSROOM LIVE	$2,995 USD	5 Day

Classroom Live Outline

Module 1: Installing, upgrading, and migrating servers and workloads

This module explains how to prepare for and install Windows Server, including Server Core. This module also explains how to plan a server upgrade and migration strategy. Also this module explain to 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 environment characteristics

Lessons

- Introducing Windows Server
- Preparing and installing Server Core
- Preparing for upgrades and migrations
- Migrating server roles and workloads
- Windows Server activation models

Module 2: Configuring local storage

This module explains how to manage disks and volumes in Windows Server.

Lessons

- Managing disks in Windows Server
- Managing volumes in Windows Server

Module 3: Implementing enterprise storage solutions

This module explains how to understand direct-attached storage (DAS), network-attached storage (NAS), and storage area networks (SANs). It also explains the purpose of Microsoft Internet Storage Name Service (iSNS) Server, data center

bridging, and Multipath I/O (MPIO). Additionally, this module compares Fibre Channel, Internet Small Computer System Interface (iSCSI), and Fibre Channel Over Ethernet (FCoE), and describes how to configure sharing in Windows Server.

Lessons

- Overview of DAS, NAS, and SANs
- Comparing Fibre Channel, iSCSI, and Fibre Channel over Ethernet
- Understanding iSNS, DCB, and MPIO
- Configuring sharing in Windows Server

Module 4: Implementing Storage Spaces and Data Deduplication

This module explains how to implement and manage Storage Spaces and Data Deduplication.

Lessons

- Implementing Storage Spaces
- Managing Storage Spaces
- Implementing Data Deduplication

Module 5: Installing and configuring Hyper-V and virtual machines

This module explains how to install Hyper-V, and configure storage and networking on Hyper-V host servers. Additionally, it explains how to configure and manage Hyper-V virtual machines

Lessons

- Overview of Hyper-V
- Installing Hyper-V
- Configuring storage on Hyper-V host servers
- Configuring networking on Hyper-V host servers
- Configuring Hyper-V virtual machines
- Managing virtual machines

Module 6: Deploying and managing Windows and Hyper-V containers

This module explains how to deploy Windows Server and Hyper-V containers. It also explains how to install, configure, and manage containers by using Windows PowerShell and Docker.

Lessons

- Overview of containers in Windows Server
- Preparing for containers
- Installing, configuring, and managing containers by using Docker

Module 7: Overview of high availability and disaster recovery

This module explains how to plan high availability and disaster recovery solutions with Hyper-V virtual machines. Additionally, this module explains how to back up and restore the Windows Server operating system and data by using the Windows Server Backup feature.

Lessons

- Defining levels of availability
- Planning high availability and disaster recovery solutions with Hyper-V virtual machines
- Backing up and restoring by using Windows Server Backup
- High Availability with failover clustering in Windows Server

Module 8: Implementing failover clustering

This module explains how to create and manage a failover cluster. Additionally, it explains how to implement high availability and stretch clustering for a site.

Lessons

- Planning a failover cluster
- Creating and configuring a new failover cluster
- Maintaining a failover cluster
- Troubleshooting a failover cluster
- Implementing site high availability with stretch clustering

Module 9: Implementing failover clustering with Windows Server Hyper-V

This module explains how to implement Hyper-V virtual machines in failover clusters. Additionally, it describes the key features for virtual machines in a clustered environment.

Lessons

- Overview of the integration of Hyper-V Server with failover clustering
- Implementing Hyper-V VMs on failover clusters
- Key features for VMs in a clustered environment

Module 10: Implementing Network Load Balancing

This module explains how to plan and configure an NLB cluster implementation. it also provides an overview of Network Load Balancing (NLB) and NLB clusters.

Lessons

- Overview of NLB
- Configuring an NLB cluster
- Planning an NLB implementation

Module 11: Creating and managing deployment images

This module explains how to create and manage deployment images by using the Microsoft Deployment Toolkit (MDT). Additionally, it describes different workloads in the virtual machine environment

Lessons

- Introduction to deployment images
- Creating and managing deployment images by using MDT
- Virtual machine environments for different workloads

Module 12: Managing, monitoring, and maintaining virtual machine installations

This module explains how to manage the update process with WSUS. Additionally, this module provides an overview of Windows PowerShell Desired State Configuration (DSC) and Windows Server monitoring tools.

Lessons

- WSUS overview and deployment options
- Update management process with WSUS
- Overview of Windows PowerShell DSC
- Overview of Windows Server monitoring tools
- Using Performance Monitor
- Monitoring event logs

Classroom Live Labs

- Lab: Installing and configuring Server Core
- Lab: Configuring local storage
- Lab: Planning and configuring storage technologies and components
- Lab: Implementing Storage Spaces
- Lab: Implementing Data Deduplication
- Lab: Installing and configuring Hyper-V
- Lab: Installing and configuring containers
- Lab: Planning and implementing a high availability and disaster recovery solution
- Lab: Implementing failover clustering
- Lab: Managing a failover cluster
- Lab: Implementing failover clustering with Windows Server Hyper-V
- Lab: Implementing NLB
- Lab: Using MDT to deploy Windows Server
- Lab: Implementing WSUS and deploying updates
- Lab: Monitoring and troubleshooting Windows Server

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- Lab: Managing a failover cluster
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- Lab: Implementing WSUS and deploying updates
- Lab: Monitoring and troubleshooting Windows Server

Jul 7 - 11, 2025 | 9:00 AM - 5:00 PM EDT

Oct 13 - 17, 2025 | 9:00 AM - 5:00 PM EDT

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PRIVATE GROUP TRAINING	5 Day

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.

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