



Installation, Storage, and Compute with  
Windows Server 2016



# Installation, Storage, and Compute with Windows Server 2016

## Introduction:

The Windows Server 2016 training will provide you the necessary skills to install and administer Windows Server 2016 in an enterprise setting. Learning the steps to install, manage storage, and computing with Windows Server 2016 will help you implement storage solutions using Windows 2016.

During this course, you will also learn how to monitor virtual machine installations, plan, and configure storage solutions, and learn how to manage a failover cluster. IT professionals who are keen to learn about the storage and computational aspect of Windows Server 2016 must opt for this training. Mercury Training Center offers a state-of-the-art training facility and has one of the most experienced faculty around to help you successfully clear this certification

## Targeted Groups:

- Windows Server administrators who are relatively new to Windows Server administration and related technologies, and who want to learn more about the storage and compute features in Windows Server 2016
- IT professionals who are looking to gain knowledge about Windows Server, especially around storage and compute technologies in Windows Server 2016

## Course Objectives:

At the end of this course the participants will be able to:

- Plan and prepare a strategy for server upgrade or migration
- Prepare and install Server Core installation, Nano Server
- Understand the different options for storage such as basic and dynamic disks, partition table formats, virtual hard disks, file systems, drive hardware, and learn to efficiently manage storage disks and volumes.
- Implement and manage enterprise storage solutions, and identify the most apt storage solution for a given scenario.
- Apply and maintain Data Deduplication and Storage Spaces.
- Configure and install Microsoft Hyper-V.
- Install and manage containers in Windows and Hyper-V.
- Understand and implement disaster recovery and high availability in Windows Server 2016.
- Plan, implement, and manage failover clustering.
- Implement failover clustering for Hyper-V virtual machines.
- Plan, configure and implement a Network Load Balancing NLB cluster.
- Configure and maintain deployment images.
- Configure, monitor, and manage virtual machine installations

## **Targeted Competencies:**

- Networking
- Security best practices
- AD DS concepts
- Server hardware
- Experience in supporting and configuring Windows client operating systems

## **Course Content:**

### **Unit 1: Installing, Upgrading, and Migrating Servers and Workloads:**

- Introducing Windows Server 2016
- Preparing and installing Nano Server and Server Core
- Preparing for upgrades and migrations
- Migrating server roles and workloads
- Windows Server activation models

### **Unit 2: Configuring Local Storage:**

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

### **Unit 3: Implementing Enterprise Storage Solutions:**

- Overview of DAS, NAS, and SANs
- Comparing Fibre Channel, iSCSI, and FCoE
- Understanding iSNS, data center bridging, and MPIO
- Configuring sharing in Windows Server 2016

### **Unit 4: Implementing Storage Spaces and Data Deduplication:**

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

### **Unit 5: Installing and Configuring Hyper-V and Virtual Machines:**

- 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 Hyper-V virtual machines

## **Unit 6: Deploying and Managing Windows Server and Hyper-V Containers:**

- Overview of containers in Windows Server 2016
- Deploying Windows Server and Hyper-V containers
- Installing, configuring, and managing containers by using Docker

## **Unit 7: Overview of High Availability and Disaster Recovery:**

- Defining levels of availability
- Planning high availability and disaster recovery solutions with Hyper-V virtual machines
- Backing up and restoring the Windows Server 2016 operating system and data by using Windows Server B
- High availability with failover clustering in Windows Server 2016

## **Unit 8: Implementing and Managing Failover Clustering:**

- 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

## **Unit 9: Implementing Failover Clustering for with Server 2016 Hyper-V**

- Overview of integrating Hyper-V Server 2016 with failover clustering
- Implementing Hyper-V virtual machines on failover clusters
- Key features for virtual machines in a clustered environment

## **Unit 10: Implementing Network Load Balancing:**

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

## **Unit 11: Creating and Managing Deployment Images:**

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

## **Unit 12: Managing, Monitoring, and Maintaining Virtual Machine Installations:**

- WSUS overview and deployment options
- Update management process with WSUS
- Overview of PowerShell DSC
- Overview of Windows Server 2016 monitoring tools
- Using Performance Monitor
- Monitoring Event Logs