Installation, Storage and Compute with Windows Server 2016

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SII-280 **5 Days (35 Hours)**

Description

During this training, you will learn how to install, migrate and update Windows Server 1016. The objective is focused on planning, configuring and operating a storage solution optimized on Windows Server 2016 .

Who is this training for ?

For whom

This training is aimed at IT professionals who want to acquire the knowledge necessary to plan, implement and operate a Windows Server 2016 storage environment. Then, learn more about the different scenarios and their associated needs in the field of storage technologies. calculation with Windows Server 2016.

Prerequisites

- Have basic hands-on experience in administering and supporting a Windows Server environment.
- Have experience in supporting and configuring a Windows Server environment. a Windows client operating system such as Windows 8 or Windows 10.
- Have the following skills: basic understanding of networking fundamentals, knowledge of AD DS concepts and basic knowledge of hardware of a server.

Training objectives

- Prepare and install Nano Server, a Server Core installation, and plan a server upgrade and migration strategy
- Describe different storage options, including table partition formats, basic and dynamic disks, systems files, virtual hard drives, and hardware, and explain how to manage disks and volumes
- Describe enterprise storage solutions, and choose the appropriate solution for a given situation
- Implement and manage storage spaces and data deduplication.
- Install and configure Microsoft Hyper-V
- Deploy, configure, and manage Windows and Hyper-V containers
- Describe Windows Server 2016 high availability and disaster recovery technologies

- Plan, create, and manage a failover cluster
- Implement failover clustering for Hyper-V virtual machines
- Configure and implement Network Load Balancing (NLB) Cluster
- Create and manage deployment images
- Manage, monitor and maintain virtual machine installations

Training program

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

Configuring local storage

- Managing disks in Windows Server 2016
- Managing volumes in Windows Server 2016

Implementing enterprise storage solutions

- Overview of direct-attached storage, network-attached storage, and storage area networks
- Comparing Fibre Channel, iSCSI, and FCoE
- Understanding iSNS, data centre bridging, and MPIO
- Configuring sharing in Windows Server 2016

Implementing Storage Spaces and Data Deduplication

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

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

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

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

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

Implementing failover clustering for Hyper-V virtual machines

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

Implementing Network Load Balancing

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

Creating and managing deployment images

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

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