

Course Outline

Module 1: Installing and configuring Windows Server 2016

This module explains how to install and perform post-installation configuration of Windows Server 2016 servers.

Lessons

- Introducing Windows Server 2016
- Installing Windows Server 2016
- Configuring Windows Server 2016
- Preparing for upgrades and migrations
- Migrating server roles and workloads
- Windows Server activation models

Lab: Installing and configuring Server Core

- Installing Server Core
- Completing post-installation tasks on Windows Server 2016 Core
- Performing remote management

- Explain Windows Server 2016.
- Install Windows Server 2016.
- Configure Windows Server 2016.
- Prepare for upgrades and migrations.
- · Migrate server roles and workloads.
- Describe the Windows Server activation models.







Module 2: Overview of storage in Windows Server 2016

This module explains how to configure storage in Windows Server 2016.

Lessons

- Overview of storage in Windows Server 2016
- Implementing Data Deduplication
- Configuring iSCSI storage
- Configuring the Storage Spaces feature in Windows Server 2016

Lab: Implementing and managing storage

- Implementing File Server Resource Manager (FSRM)
- Implementing Data Deduplication
- Configuring iSCSI storage

After completing this module, students will be able to:

- Explain storage in Windows Server 2016.
- · Implement Data Deduplication.
- Configure iSCSI storage.
- Configure the Storage Spaces feature in Windows Server 2016.

Module 3: Implementing directory services

This module explains how to implement the Directory Services feature.

Lessons

- Deploying Active Directory domain controllers
- Implementing service accounts
- Azure AD

Lab: Implementing and managing AD DS

- Cloning a domain controller
- Implementing service accounts

- Deploy AD DS domain controllers.
- Implement service accounts.
- Explain Azure AD.





Module 4: Implementing AD FS

This module explains how to implement an AD FS deployment.

Lessons

- Overview of AD FS
- Deploying AD FS
- Implementing AD FS for a single organization
- Implementing Web Application Proxy
- Implementing SSO with Microsoft online services

Lab: Implementing AD FS

- Installing and configuring AD FS
- Configuring an internal application for AD FS
- Lab : Implementing Web Application Proxy
- Implementing Web Application Proxy

- Describe AD FS.
- Deploy AD FS.
- Implement AD FS for a single organization.
- Implement Web Application Proxy.
- Implement SSO with Microsoft online services.





Module 5: Implementing network services

This module explains how to configure advanced features for Dynamic Host Configuration Protocol (DHCP) and configure IP Address Management (IPAM).

Lessons

- Overview of networking enhancements
- Implementing IPAM
- Managing IP address spaces with IPAM

Lab: Implementing network services

- Configuring DNS policies
- Configuring DHCP failover
- Configuring IPAM

- Describe networking enhancements.
- Implement IP address management.
- Manage IP address spaces with IPAM.





Module 6: Implementing Hyper-V

This module explains how to install and configure Hyper-V virtual machines.

Lessons

- Configuring the Hyper-V role in Windows Server 2016
- Configuring Hyper-V storage
- Configuring Hyper-V networking
- Configuring Hyper-V virtual machines

Lab: Implementing server virtualization with Hyper-V

- Installing the Hyper-V server role
- Configuring virtual networking
- Creating and configuring a virtual machine

After completing this module, students will be able to:

- Configure the Hyper-V role in Windows Server 2016.
- Configure Hyper-V storage.
- Configure Hyper-V networking.
- Configure Hyper-V virtual machines.

Module 7: Configuring advanced networking features

This module explains how to implement an advanced networking infrastructure.

Lessons

- Overview of high-performance networking features
- Configuring advanced Hyper-V networking features

Lab: Configuring advanced Hyper-V networking features

- Creating and using Hyper-V virtual switches
- Configuring and using the advanced features of a virtual switch

- Describe high-performance networking features.
- Configure advanced Hyper-V networking features.







Module 8: Implementing Software Defined Networking

This module explains how to implement software-defined networking.

Lessons

- Overview of SDN
- Implementing network virtualization
- Implementing Network Controller

Lab: Deploying Network Controller

- Preparing to deploy Network Controller
- Deploying Network Controller

After completing this module, students will be able to:

- Describe Software Defined Networking.
- · Implement network virtualization.
- Implement Network Controller.

Module 9: Implementing remote access

This module explains how to configure connectivity for remote users by using the DirectAccess feature.

Lessons

- Remote access overview
- Implementing DirectAccess
- Implementing VPN

Lab: Implementing DirectAccess

- Configuring DirectAccess using the Getting Started Wizard
- Testing DirectAccess

- Describe common remote-access solutions and technologies.
- Implement DirectAccess.
- Implement VPNs.





Module 10: Deploying and managing Windows and Hyper-V containers

This module provides an overview of Windows Server 2016 containers. Additionally, it explains how to deploy, install, configure, and manage containers in Windows Server 2016.

Lessons

- Overview of containers in Windows Server 2016
- Preparing for containers
- Installing, configuring, and managing containers by using Docker

Lab: Installing and configuring containers

- Installing Docker Enterprise Edition for Windows Server 2016
- Installing and configuring an IIS container

- Describe containers in Windows Server 2016.
- Explain how to deploy containers.
- Explain how to install, configure, and manage containers by using Docker.





Module 11: Implementing failover clustering

This module explains how to implement failover clustering to provide high availability for network services and applications.

Lessons

- Overview of failover clustering
- Implementing a failover cluster
- Configuring highly available applications and services on a failover cluster
- Maintaining a failover cluster
- Implementing a stretch cluster

Lab: Implementing failover clustering

- Configuring iSCSI storage
- Configuring a failover cluster
- Deploying and configuring a highly available file server
- Validating the deployment of a highly available file server
- · Configuring CAU on the failover cluster

- · Describe the concept of failover clustering.
- Implement a failover cluster.
- Configure highly available applications and services on a failover cluster.
- Maintain a failover cluster.
- Implement a stretch-failover cluster.





Module 12: Implementing failover clustering with Windows Server 2016 Hyper-V

This module explains how to deploy and manage Hyper-V virtual machines in a failover cluster.

Lessons

- Overview of the integration of Hyper-V Server 2016 with failover clustering
- Implementing Hyper-V virtual machines on failover clusters
- Implementing Windows Server 2016 Hyper-V virtual machine migration
- Implementing Hyper-V Replica

Lab: Implementing failover clustering with Windows Server 2016 Hyper-V

- The Hyper-V Failover clustering testing environment
- Configuring Hyper-V Replica
- · Configuring a failover cluster for Hyper-V
- · Configuring a highly available virtual machine

- Describe how Windows Server 2016 Hyper-V integrates with failover clustering.
- Implement Hyper-V virtual machines on failover clusters.
- Implement Hyper-V virtual machine migration.
- Implement Hyper-V Replica.







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