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What is Upgrading Your Skills to Windows Server 2016 (M10983)?

This training course explains how to implement and configure new Windows Server 2016 features and functionality. This training course is for information technology (IT) professionals who want to upgrade their technical skills from Windows Server 2008 or Windows Server 2012 to Windows Server 2016. This training course presumes a high level of knowledge about previous Windows Server technologies and skills equivalent to the Microsoft Certified Solutions Associate (MCSA): Windows Server 2008 or Windows Server 2012 credential. This training course is not a product-upgrade course, detailing considerations for migrating and upgrading students' specific environment to Windows Server 2016. Rather, this training course provides updates to students' existing Windows Server knowledge and skills, as they pertain to Windows Server 2016.

What are the objectives of Upgrading Your Skills to Windows Server 2016 (M10983)?

After completing this training course, students will be able to:

- Install and configure Windows Server 2016.
- Implement Hyper-V.
- Implement directory services.
- Implement AD FS.
- Manage and optimise storage in Windows Server 2016.
- Implement secure data access for users and devices.
- Implement network services.
- Implement remote access.
- Implement failover clustering.
- Implement failover clustering with Windows Server 2016 Hyper-V.
- Recover data in Windows Servers 2016.

Who is the Upgrading Your Skills to Windows Server 2016 (M10983) course for?

This training course is for IT professionals who are experienced Windows Server 2012 or Windows Server 2008 system administrators, with real-world experience working in a Windows Server 2008 R2 or Windows Server 2008 enterprise environment. Additionally, students should have obtained the MCSA credential for Windows Server 2008 or Windows Server 2012, or they should have equivalent knowledge.

Additionally, IT professionals who plan to take the Microsoft Certified Solutions Expert (MCSE) exams might be interested in this course, as preparation for the MCSA exams, which are a prerequisite for the MCSE specialties.

Before attending this training course, students must have:

- Two or more years of experience with deploying and managing Windows Server 2012 or Windows Server 2008 environments; NS experience with day-to-day Windows Server 2012 or Windows Server 2008 system-administration management and maintenance tasks.
- Experience with Windows networking technologies and implementation.
- Experience with Active Directory technologies and implementation.
- Experience with Windows Server virtualization technologies and implementation.
- Knowledge equivalent to the MCSA credentials of Windows Server 2008 or Windows Server 2012.

Module 1: Installing and Configuring Windows Server 2016This 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
- Implementing containers in Windows Server 2016

Lab: Installing and configuring Nano Server

- Installing Nano Server
- Completing post-Installation tasks on Nano Server

After completing this module, students will be able to:

- Describe the new and improved features in Windows Server 2016.
- Install Windows Server 2016.
- Configure and manage Windows Server 2016.
- Enable and configure Windows Server containers.

Module 2: Implementing Hyper-VThis 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

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Module 3: Implementing directory servicesThis module explains how to implement Active Directory Domain Services (AD DS) in Windows Server 2016.Lessons

- Deploying AD DS domain controllers
- Implementing service accounts
- Microsoft Azure Active Directory (Azure AD)
- Integrating AD DS with Azure AD

Lab: Implementing service accounts

- Implementing service accounts

Lab: Integrating with Azure AD

- Installing Azure AD Connect
- Verifying synchronization

After completing this module, students will be able to:

- Deploy Windows Server 2016 AD DS domain controllers.
- Implement service accounts in AD DS.
- Describe Azure AD.
- Integrate AD DS with Azure AD.

Module 4: Implementing AD FSThis module explains how to implement an Active Directory Federation Services (AD FS) deployment.

- Overview of AD FS
- Deploying AD FS
- Implementing AD FS for a single organisation
- Implementing Web Application Proxy
- Implementing single sign-on (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

After completing this module, students will be able to:

- Describe AD FS.
- Explain how to deploy AD FS.
- Explain how to implement AD FS for a single organisation.
- Explain how to extend AD FS to external clients.
- Describe how to implement SSO to support online services.

Module 5: Managing and Optimising Storage in Windows Server 2016This module explains how to configure storage in Windows Server 2016.Lessons

- Overview of storage in Windows Server 2016
- Configuring Internet small computer system interface (iSCSI) Storage

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- Implementing FSRM
- Configuring iSCSI Storage

Lab: Configuring Storage Spaces

- Configuring redundant storage spaces
- Implementing the Storage Spaces Direct feature

After completing this module, students will be able to:

- Describe the new features in Windows Server 2016 storage.
- Configure iSCSI storage.
- Configure the Storage Spaces feature in Windows Server 2016.

Module 6: Implementing Secure Data Access for Users and DevicesThis module explains how to configure Dynamic Access Control to manage and audit access to shared files.Lessons

- Overview of Dynamic Access Control
- Planning for a Dynamic Access ControliImplementation
- Configuring Dynamic Access Control
- Implementing Work Folders

Lab: Implementing Dynamic Access Control

- Preparing Dynamic Access Control
- Implementing Dynamic Access Control
- Validating and remediating Dynamic Access Control

Lab: Implementing Work Folders

- Configuring Work Folders

After completing this module, students will be able to:

- Describe Dynamic Access Control.
- Plan an implementation of Dynamic Access Control.
- Configure and implement Dynamic Access Control.
- Implement and manage Work Folders.

Module 7: Implementing network servicesThis module explains how to configure advanced features for DHCP and configure IPAM.Lessons

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

Lab: Implementing network services

- Configuring DNS policies
- Configuring DHCP failover
- Configuring IPAM

After completing this module, students will be able to:

- Describe the networking enhancements in Windows Server 2016.

Module 8: Implementing remote accessThis module explains how to configure connectivity for remote users by using DirectAccess.Lessons

- Remote access overview
- Implementing DirectAccess
- Implementing a virtual private network (VPN)

Lab: Implementing DirectAccess

- Configuring DirectAccess using the Getting Started Wizard
- Testing DirectAccess

After completing this module, students will be able to:

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

Module 9: Implementing failover clusteringThis module explains how to provide high availability for network services and applications by implementing failover clustering.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 the highly-available file server
- Configure Cluster-Aware Updating on the failover cluster

After completing this module, students will be able to:

- 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 10: Implementing failover clustering with Windows Server 2016 Hyper-VThis 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

- Configuring Hyper-V Replica
- Configuring a failover cluster for Hyper-V

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- 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.

Module 11: Data recovery in Windows Server 2016This module explains how to perform data recovery on Windows Server 2016.Lessons

- Implementing data recovery options
- Implementing Microsoft Azure Backup
- Implementing server recovery

Lab: Exploring server data recovery options

- Backing up servers running Windows Server 2016
- Implementing Azure Backup
- Restoring files