



WS-013T00: Azure Stack HCI

Course ID #: 7000-382-ZZ-Z

Hours: 21

Course Content

Course Description:

This three-day course is intended primarily for IT Professionals who already have significant experience with managing an on-premises Windows Server environment. Its purpose is to cover advanced topics related to Windows Server software-defined datacenter, Azure Stack HCI, and other Azure Stack products. The course also describes the use of existing Microsoft System Center products to implement and manage software-defined datacenters with Windows Server 2019. This course is advanced and is designed for people that want to run their virtual workloads on Windows Server 2019 at medium-to-large scale using software-defined datacenter and hyper-converged principles.

At Course Completion:

After completing this course, student will be able to:

- Describe the Azure Stack portfolio, including Azure Stack HCI, Azure Stack Hub, and Azure Stack Edge
- Describe the Azure Stack HCI core technologies and management tools.
- Describe the process of a typical Azure Stack HCI implementation.
- Identify Azure Stack HCI hybrid capabilities.
- Implement, manage, and maintain workloads on Azure Stack HCI.
- Plan for and implement Azure Stack HCI Storage, including Storage QoS and Storage Replica.
- Plan for Azure Stack HCI Networking.
- Implement Software Defined Networks in Azure Stack HCI.

Prerequisites:

- Intermediate experience with managing Windows Server operating systems and Windows Server virtualized workloads in on-premises scenarios
- Intermediate experience with common Windows Server management tools (implied by the first prerequisite)
- Intermediate knowledge of core Microsoft compute, storage, networking, and virtualization technologies
- Intermediate knowledge of Windows Server-based compute and storage high-availability technologies
- Basic experience with implementing and managing Infrastructure as a service (IaaS) services in Microsoft Azure
- Basic knowledge of Azure Active Directory (Azure AD)
- Intermediate knowledge of Microsoft virtualization security-related technologies
- Intermediate knowledge of PowerShell scripting and PowerShell Desired State Configuration (DSC)



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Target Student:

This course is for IT professionals who manage on-premises Windows Server environments and want to use Azure to manage server workloads and run their virtual workloads on Windows Server 2019. They also want to use existing Microsoft System Center products to implement and manage software-defined datacenters with Windows Server 2019.

Topics:

Module 1: Introducing Azure Stack HCI

- Overview of Azure Stack HCI
- Overview of Azure Stack HCI technologies
- Overview of Azure Stack HCI management tools
- Overview of the Azure Stack HCI hybrid capabilities

Module 2: Operating and maintaining Azure Stack HCI

- Implementing and managing workloads on Azure Stack HCI
- Maintaining Azure Stack HCI

Lab : Lab B: Using Windows Admin Center in hybrid scenarios

- Integrating hyperconverged infrastructure with Azure services
- Reviewing Azure integration functionality
- Managing updates to hyperconverged infrastructure

Module 3: Planning for and implementing Azure Stack HCI storage

- Overview of Azure Stack HCI Storage core technologies
- Planning for Storage Spaces Direct in Azure Stack HCI
- Implementing a Storage Spaces Direct-based hyper-converged infrastructure
- Managing Storage Spaces Direct in Azure Stack HCI
- Planning for and implementing Storage QoS
- Planning for and implementing Storage Replica

Lab : Implementing a Storage Spaces Direct cluster

- Implementing a Storage Spaces Direct cluster by using Windows Admin Center
- Implementing a Storage Spaces Direct cluster by using Windows PowerShell
- Managing of a Storage Spaces Direct cluster by using Windows Admin Center and Windows PowerShell
- Managing and monitoring resiliency of a Storage Spaces Direct cluster
- Managing Storage Spaces Direct cluster tiers
- Identifying and analyzing metadata of a Storage Spaces Direct cluster (optional)



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Module 4: Planning for and implementing Azure Stack HCI networking

- Overview of Azure Stack HCI core networking technologies
- Overview of network virtualization and Software-Defined Networking
- Planning for and implementing Switch Embedded Teaming
- Planning for and implementing Datacenter Firewall
- Planning for and implementing Software Load Balancing
- Planning for and implementing RAS Gateways

Lab : Lab A: Deploying Software-Defined Networking

- Deploying Software-Defined Networking by using PowerShell
- Managing virtual networks by using Windows Admin Center and PowerShell
- Implementing SDN Access Control List by using Windows Admin Center
- Implementing SDN Software Load Balancing by using Windows Admin Center and Windows PowerShell