



WS-013 Azure Stack HCI Windows Server 2019 Training

Description

Microsoft Certified: Azure Administrator HCI Stack Training Class WS-013

You Will Learn How To:

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

This WS-013 Microsoft Certified: Azure Administrator HCI Stack Course

IT Professionals with significant experience with managing an on-premises Windows Server environment. Advanced topics related to Windows Server software-defined datacenter, Azure Stack HCI, and other Azure Stack products. The course uses existing Microsoft System Center products to implement and manage software-defined datacenters with Windows Server 2019. An advanced course for people to run their virtual workloads on Windows Server 2019 at medium-to-large scale using software-defined datacenter and hyper-converged principles.

Good to know before you attend the class:

IT professionals who manage on-premises Windows Server environments and use Azure to manage server workloads and run their virtual workloads on Windows Server 2019. Microsoft System Center products to implement and manage software-defined datacenters with Windows Server 2019.

Good to know before you attend the class:

- Intermediate experience with managing Windows Server operating systems and Windows Server virtualized workloads in on-premises scenarios
- And, with common Windows Server management tools (implied by the first prerequisite)
- Intermediate knowledge of core Microsoft compute, storage, networking, and virtualization technologies
- And, 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)

Course outline

Module 1: Introducing Azure Stack HCI

This module describes the basic characteristics of Azure Stack HCI, along with its peer offerings that are part of the Azure stack portfolio, including Azure Stack Hub and Edge.

Lessons

Overview;

- Technologies
- Management tools
- And also, hybrid capabilities

After completing this module, students will be able to:

- Describe basic capabilities and use cases of the Microsoft Azure Stack portfolio.
- Identify the core components of the Azure Stack HCI architecture.
- Identify common management tools used to deploy and manage a hyperconverged infrastructure.
- Describe the purpose and capabilities of Azure Arc.
- Identify Azure infrastructure services that you can integrate into your on-premises environment.
- Configure cloud witness as the quorum witness type.
- Describe how to establish a Point-to-Site VPN to an Azure virtual network with Azure Network Adapter

- Describe the characteristics and use cases for Azure File Sync and Azure Monitor.
- Explain how to maintain business continuity, using Azure Backup and Azure Site Recovery.
- Describe Azure Update Management use cases and architecture.
- Describe the high level process for provisioning an Azure Stack HCI implementation.

Module 2: Operating and maintaining Azure Stack HCI

This module describes how to implement, manage, and maintain workloads on Azure Stack HCI. As described in the first module, it is designed to optimize performance, resiliency, and scalability of specific types of workloads. Implementing these workloads follows the initial configuration, which involves provisioning virtualized storage and networking layers on top of the hardware approved by Microsoft that is running the Windows Server 2019 operating system. This module provides an overview of different Azure services and Windows Server functionality that can be used to manage and maintain those workloads, leveraging integration of Windows Server 2019 with Azure.

Lessons

- Implementing and managing workloads
- 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

After completing this module, students will be able to:

- Implement shared clustering with shared disks.
- Describe components required to deploy shielded VMs.
- Implement Virtual Desktop Infrastructure (VDI) workloads.
- Host container-based deployments
- Create a Point-to-Site (P2S) VPN connection to an Azure virtual network, with Azure Network Adapter.
- Describe Azure File Sync architecture.
- Implement Azure File Sync to replicate files between on-premises and an Azure file share.
- Manage Azure Stack HCI workloads with Azure Arc.

Module 3: Planning for and implementing Azure Stack HCI storage

This module describes how to plan for and implement Azure Stack HCI Storage. The module covers the core HCI storage technologies in detail and includes specific coverage of Storage QoS and Storage Replica. The module describes the process of planning, implementation and management of storage.

Lessons

- Overview of core technologies
- Planning for Storage Spaces

- Implementing a Storage Spaces Direct-based hyper-converged infrastructure
- Managing Storage Spaces
- Planning for and implementing Storage QoS
- Planning for and implementing Storage Replica

Lab : Implementing a Storage Spaces Direct cluster

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

After completing this module, students will be able to:

- Describe Azure Stack HCI storage core technologies.
- Plan for Storage Spaces.
- Implement Storage Spaces Direct-based Hyper-Converged Infrastructure.
- Manage Storage Spaces.
- Plan for and implement Storage QoS.
- Plan for and implement Storage Replica.

Module 4: Planning for and implementing Azure Stack HCI networking

This module describes how to plan for and implement Software Defined Networking in Azure Stack HCI. The module focuses on the technology and its basic functionality, with emphasis on Windows Admin Center as the primary SDN management tool. The module also covers in more detail four specific components of SDN; Switch Embedded Teaming (SET), Software Load Balancing (SLB), Datacenter Firewall, and RAS Gateways.

Lessons

- Overview core networking technologies
- Overview of network virtualization and Software-Defined Networking
- Planning for and implementing Switch Embedded Teaming
- Datacenter Firewall
- Software Load Balancing
- And also, 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

After completing this module, students will be able to:

- Describe the core Software-Defined Networking (SDN) components.
- Distinguish between software-only and hardware-only features
- Describe the use case for Simplified SMB Multichannel and Multi-NIC Cluster Networks.
- Network virtualization in the context of.
- And, the process of deploying SDN.
- Plan for and implement SET.
- Describe SLB functionality and infrastructure and implement SLB.
- Implement and configure Datacenter Firewall.
- Implement, configure, and troubleshoot RAS Gateway.

Related Courses:

[AZ-800 Administering Windows Server Hybrid Core Infrastructure](#)

[AZ-801 Configuring Windows Server Hybrid Advanced Services](#)

[WS-012 Windows Server 2019 Hybrid and Azure IaaS](#)

[WS-050 Migrating Application Workloads to Azure](#)

Related Certifications:

[Microsoft Azure Training and Certifications](#)

[Microsoft Certified: Windows Server Hybrid Administrator Associate](#)

[Learning Paths](#)

[Microsoft Certified: Azure Administrator Associate](#)

[Prerequisites](#)

[Contact Us](#) or Live Chat if you have questions or concerns about Microsoft Azure Architect Technologies Course.

PRODUCT TYPE

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PRODUCT CAT

- Azure Administration

- Azure Cloud Skills and Training
- SharePoint, Windows, SQL

Date Created

November 2021

Author

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