



Configuring and Operating a Hybrid Cloud with Microsoft Azure Stack Hub

Course AZ-600

4 Days

Instructor-led, Hands-on

Introduction

This four-day, instructor-led course teaches Azure administrators and Azure Stack Hub operators how to plan, deploy, package, update, and maintain the Azure Stack Hub infrastructure. Lessons include deploying Azure Stack Hub, managing the Azure Stack Hub Marketplace, offering App Services and Event Hub resource providers, managing Azure Stack Hub registration, and maintaining system health.

Students for this course are interested in becoming Azure Stack Hub operators who provide cloud services to end users or customers from within their own datacenter using Azure Stack Hub. Azure Stack Hub operators responsibilities include planning, deploying, packaging, updating, and maintaining the Azure Stack Hub infrastructure. They also offer hybrid cloud resources and requested services and manage infrastructure as a service (IaaS) and platform as a service (PaaS).

Prerequisites

Successful Azure Stack Hub students have prior experience with operating systems, virtualization, cloud infrastructure, storage structures, and networking:

- Understanding of on-premises virtualization technologies, including VMs and virtual networking
- Understanding of network configuration, including TCP/IP, Domain Name System (DNS), virtual private networks (VPNs), firewalls, and encryption technologies
- Understanding of Active Directory concepts, including domains, forests, and domain controllers

If you are new to Azure and cloud computing, consider one of the following resources:

- Instructor-led course: AZ-900: Azure Fundamentals and AZ-104: Azure Administrator
- Prerequisites for Azure administrators

Course Materials

The student kit includes a workbook and other necessary materials for this class.

Contact ISInc for more information at 916.920.1700 or by visiting our website at <http://www.isinc.com>

Course Outline

Module 1: Overview of Azure Stack Hub

In this module, you will learn how Azure Stack Hub is an extension of Azure that provides a way to run apps in an on-premises environment and deliver Azure services in your datacenter.

Lessons

- Azure Stack Hub
- Datacenter integration
- Azure Stack Hub PowerShell
- Module review questions

After completing this module, students will be able to:

- Describe edge and disconnected solutions
- Describe Azure Stack Hub integrated systems architecture
- Explain Azure Stack Hub deployment options
- Define differences between Azure Stack Hub, Azure Stack HCI, and global Azure

Module 2: Provide Services

In this module, you will learn how to populate Azure Stack Hub Marketplace in a disconnected environment, deploy an App Services resource provider, deploy Event Hubs resource providers, create and manage quotas, plans, offers, and subscriptions, and manage usage and billing.

Lessons

- Manage Azure Stack Hub Marketplace
- Offer an App Services resource provider
- Offer an Event Hubs resource provider
- Offer services
- Manage usage and billing
- Module review questions

Lab : Manage offers and plans in Azure Stack Hub

Lab : Add custom Marketplace Items by using the Azure Gallery Packager

Lab : Optional Lab: Implement SQL Server Resource Provider in Azure Stack Hub

Lab : Validate Azure Resource Manager (ARM) Templates with Azure Stack Hub

After completing this module, students will be able to:

- Create a custom Azure Stack Hub Marketplace item
- Deploy and update an App Services resource provider
- Plan an Event Hubs resource provider deployment

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- Create and manage user subscriptions
- Manage usage and billing in multi-tenant and CSP scenarios

Module 3: Implement Data Center Integration

In this module, you will learn how prepare an Stack Hub deployment, recommend and validate certificates, and register in a connected and disconnected environment.

Lessons

- Prepare for Azure Stack Hub deployment
- Manage Azure Stack Hub registration
- Module review questions

After completing this module, students will be able to:

- View and retrieve usage data by using the Usage API
- Recommend a name resolution strategy
- Validate identity provider integration
- Validate certificates
- Recommend a registration mode

Module 4: Manage Identity and Access for Azure Stack Hub

In this module, you will learn how to configure the Azure Stack Hub home directory, register the guest tenant directory with Azure Stack Hub, and identify an appropriate method for access (service principal, users, groups).

Lessons

- Manage multi-tenancy
- Manage access
- Module review questions

Lab : Manage Service Principals in Azure Stack Hub

Lab : Delegate Offer Management in Azure Stack Hub

After completing this module, students will be able to:

- Register the guest tenant directory with Azure Stack Hub
- Update the guest tenant directory
- Configure access in Azure Stack Hub
- Create a custom role

Module 5: Manage the Azure Stack Hub Infrastructure

In this module, you will learn how monitor system health by using the REST API, monitor system health by using Syslog Server, collect diagnostic logs on demand by using Powershell, configure a storage target for infrastructure backup, and download and import update packages manually.

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Lessons

- Manage system health
- Azure Monitor on Azure Stack Hub
- Plan and configure business continuity and disaster recovery
- Manage capacity
- Update infrastructure
- Manage Azure Stack Hub by using privileged endpoints
- Module review questions

Lab : Connect to Azure Stack Hub via PowerShell

Lab : Access the Privileged Endpoint in Azure Stack Hub

Lab : Configure and manage Azure Stack Hub Storage Accounts

Lab : Manage Public IP Addresses in Azure Stack Hub

Lab : Configure Azure Stack Hub Infrastructure Backup

Lab : Manage Log Collection in Azure Stack Hub

After completing this module, students will be able to:

- Include resource providers such as Event Hubs
- Manage field replacement or repair
- Configure storage targets for infrastructure backups
- Update Azure Stack Hub
- Unlock a support session
- Connect to a privileged endpoint
- Perform system diagnostics by using Test-AzureStack