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Azure Architect Technologies (AZ-303)









# **Azure - Microsoft Azure Architect Technologies (AZ-303)**

#### Course Overview:

This learning path is designed to help you prepare for the AZ-303 Microsoft Azure Architect Technologies exam. Even if you don't plan to take the exam, these courses and hands-on labs will help you gain a solid understanding of how to architect a variety of Azure services.

The AZ-303 and AZ-304 exams replace the older AZ-300 and AZ-301 exams, which will retire on September 30, 2020. These two exams are part of Microsoft's role-based certification program. Candidates who pass both exams will earn the Microsoft Certified: Azure Solutions Architect Expert certification.

The AZ-303 exam tests your knowledge of four subject areas and that's how we've structured this learning path as well. We'll start with implementing and monitoring Azure infrastructure. This is the biggest section, and it covers a wide variety of topics, including storage, virtual machines, networking, Azure Active Directory, and more. Next, we'll show you how to implement management and security solutions. After that, you'll learn how to create and deploy apps using either Azure App Service or one of the container services, such as Azure Kubernetes Service. Finally, we'll cover how to implement and manage data platforms.

# Course Outline:

# **Implement and Monitor an Azure Infrastructure**

## 1. Implement cloud infrastructure monitoring

- monitor security
- > monitor performance
  - configure diagnostic settings on resources
  - create a performance baseline for resources
  - monitor for unused resources
  - monitor performance capacity
  - visualize diagnostics data using Azure Monitor
- monitor health and availability
  - monitor networking
  - monitor service health

- > monitor cost
  - monitor spend
  - o report on spend
- configure advanced logging
  - implement and configure Azure Monitor insights, including App Insights, Networks, Containers
  - configure a Log Analytics workspace
- > configure logging for workloads
  - o initiate automated responses by using Action Groups
- configure and manage advanced alerts
  - o collect alerts and metrics across multiple subscriptions
  - view Alerts in Azure Monitor logs

#### 2. Implement storage accounts

- > select storage account options based on a use case
- configure Azure Files and blob storage
- configure network access to the storage account
- implement Shared Access Signatures and access policies
- implement Azure AD authentication for storage
- manage access keys
- implement Azure storage replication
- implement Azure storage account failover

#### 3. Implement VMs for Windows and Linux

- configure High Availability
- configure storage for VMs
- > select virtual machine size
- > implement Azure Dedicated Hosts
- deploy and configure scale sets
- configure Azure Disk Encryption

#### 4. Automate deployment and configuration of resources

- > save a deployment as an Azure Resource Manager template
- modify Azure Resource Manager template
- > evaluate location of new resources
- > configure a virtual disk template
- deploy from a template
- manage a template library
- > create and execute an automation runbook

#### 5. Implement virtual networking

- implement VNet to VNet connections
- > implement VNet peering

#### 6. Implement Azure Active Directory

- > add custom domains
- configure Azure AD Identity Protection
- implement self-service password reset
- > implement Conditional Access including MFA
- > configure user accounts for MFA
- > configure fraud alerts
- > configure bypass options
- > configure Trusted IPs
- > configure verification methods
- > implement and manage guest accounts
- manage multiple directories

#### 7. Implement and manage hybrid identities

- install and configure Azure AD Connect
- identity synchronization options
- configure and manage password sync and password writeback
- configure single sign-on
- use Azure AD Connect Health

# **Implement Management and Security Solutions**

#### 1. Manage workloads in Azure

- migrate workloads using Azure Migrate
  - assess infrastructure
  - select a migration method
  - prepare the on-premises for migration
  - recommend target infrastructure
- implement Azure Backup for VMs
- > implement disaster recovery
- implement Azure Update Management

#### 2. Implement load balancing and network security

- implement Azure Load Balancer
- implement an application gateway

- implement a Web Application Firewall
- > implement Azure Firewall
- implement the Azure Front Door Service
- implement Azure Traffic Manager
- implement Network Security Groups and Application Security Groups
- > implement Bastion

#### 3. Implement and manage Azure governance solutions

- create and manage hierarchical structure that contains management groups, subscriptions and resource groups
- > assign RBAC roles
- > create a custom RBAC role
- > configure access to Azure resources by assigning roles
- configure management access to Azure
- > interpret effective permissions
- > set up and perform an access review
- implement and configure an Azure Policy
- implement and configure an Azure Blueprint

#### 4. Manage security for applications

- implement and configure KeyVault
- implement and configure Azure AD Managed Identities
- register and manage applications in Azure AD

# **Implement Solutions for Apps**

## 1. Implement an application infrastructure

- create and configure Azure App Service
- create an App Service Web App for Containers
- > create and configure an App Service plan
- > configure an App Service
- configure networking for an App Service
- create and manage deployment slots
- implement Logic Apps
- > implement Azure Functions

#### 2. Implement container-based applications

- > create a container image
- configure Azure Kubernetes Service
- publish and automate image deployment to the Azure Container Registry

> publish a solution on an Azure Container Instance

# **Implement and Manage Data Platforms**

#### 1. Implement NoSQL databases

- configure storage account tables
- > select appropriate CosmosDB APIs
- > set up replicas in CosmosDB

#### 2. Implement Azure SQL databases

- configure Azure SQL database settings
- > implement Azure SQL Database managed instances
- configure HA for an Azure SQL database
- publish an Azure SQL database

#### Prerequisites:

- General knowledge of IT architecture
- > Azure Administration Associate

#### Who Should Attend:

- Candidates for this exam should have subject matter expertise in designing and implementing solutions that run on Microsoft Azure, including aspects like compute, network, storage, and security.
- A candidate for this exam should have advanced experience and knowledge of IT operations, including networking, virtualization, identity, security, business continuity, disaster recovery, data platform, budgeting, and governance—this role should manage how decisions in each area affect an overall solution. In addition, this role should have expert-level skills in Azure administration and have experience with Azure development and DevOps processes.

Number of Hours: 40hrs

Certification: AZ-303

## Key Features:

- One to One Training
- ➤ Online Training
- > Fastrack & Normal Track
- > Resume Modification
- Mock Interviews
- ➤ Video Tutorials
- Materials
- > Real Time Projects
- ➤ Virtual Live Experience
- Preparing for Certification