

Exam AZ-303: Microsoft Azure Architect Technologies – Skills Measured

This exam was updated on November 23, 2021. Following the current exam guide, we have included a version of the exam guide with Track Changes set to “On,” showing the changes that were made to the exam on that date.

NOTE: Passing score: 700. Learn more about exam scores [here](#).

Audience Profile

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. Candidates should have intermediate-level skills for administering Azure. Candidates should understand Azure development and DevOps processes.

Responsibilities for an Azure Solution Architect include advising stakeholders and translating business requirements into secure, scalable, and reliable cloud solutions.

An Azure Solution Architect partners with cloud administrators, cloud DBAs, and clients to implement solutions.

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.

Skills Measured

NOTE: The bullets that follow each of the skills measured are intended to illustrate how we are assessing that skill. This list is not definitive or exhaustive.

NOTE: Most questions cover features that are General Availability (GA). The exam may contain questions on Preview features if those features are commonly used.

Implement and monitor an Azure infrastructure (50-55%)

Implement cloud infrastructure monitoring

- monitor security
- monitor performance
- monitor health and availability
- monitor cost
- configure advanced logging

- initiate automated responses by using Action Groups
- configure and manage advanced alerts

Implement storage accounts

- select storage account options based on a use case
- configure Azure Files and Azure 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

Implement VMs for Windows and Linux

- configure high availability
- configure storage for VMs
- select virtual machine size
- implement Azure Dedicated Hosts
- deploy and configure Virtual Machine Scale Sets
- configure managed disk encryption

Automate deployment and configuration of resources

- save a deployment as an Azure Resource Manager template
- modify Azure Resource Manager template (JSON and Bicep)
- evaluate location of new resources
- configure a VHD image
- deploy from an image
- manage an image library
- create and execute an Azure Automation runbook

Implement virtual networking

- implement VNet to VNet connections
- implement VNet peering

Implement Azure Active Directory

- add custom domains
- configure Azure AD Identity Protection
- implement self-service password reset

- implement Conditional Access including MFA
- configure fraud alerts
- configure verification methods
- implement and manage guest accounts
- manage multiple directories

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
- configure Azure AD Connect cloud sync
- use Azure AD Connect Health

Implement management and security solutions (25-30%)

Manage workloads in Azure

- migrate workloads using Azure Migrate
- implement Azure Backup for Azure workloads
- implement disaster recovery
- implement Azure Automation_Update Management

Implement load balancing and network security

- implement Azure Load Balancer
- implement an Azure Application Gateway
- implement Web Application Firewall
- implement Azure Firewall
- implement Azure Firewall Manager
- implement Azure Front Door
- implement Azure Traffic Manager
- implement Network Security Groups and Application Security Groups
- implement Bastion

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 Azure Policy
- implement and configure Azure Blueprints

Manage security for applications

- implement and configure Key Vault
- implement and configure managed identities
- register and manage applications in Azure AD

Implement solutions for apps (10-15%)

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 App Service
- configure networking for App Service
- create and manage deployment slots
- implement Logic Apps
- implement Azure Functions

Implement container-based applications

- create a container image
- configure Azure Kubernetes Service
- push container images
- deploy a solution on an Azure Container Instance

Implement and manage data platforms (10-15%)

Implement NoSQL databases

- configure Azure Storage tables
- select appropriate Cosmos DB APIs
- set up replicas in Cosmos DB

Implement Azure SQL databases

- configure Azure SQL database settings
- implement Azure SQL managed instances

- configure HA for an Azure SQL database
- deploy an Azure SQL database

The exam guide below shows the changes that were implemented on November 23, 2021.

Audience Profile

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. Candidates should have intermediate-level skills for administering Azure. Candidates should understand Azure development and DevOps processes.

Responsibilities for an Azure Solution Architect include advising stakeholders and translating business requirements into secure, scalable, and reliable cloud solutions.

An Azure Solution Architect partners with cloud administrators, cloud DBAs, and clients to implement solutions.

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.

Skills Measured

NOTE: The bullets that follow each of the skills measured are intended to illustrate how we are assessing that skill. This list is not definitive or exhaustive.

NOTE: Most questions cover features that are General Availability (GA). The exam may contain questions on Preview features if those features are commonly used.

Implement and monitor an Azure infrastructure (50-55%)

Implement cloud infrastructure monitoring

- monitor security
- monitor performance
- monitor health and availability
- monitor cost
- configure advanced logging
- initiate automated responses by using Action Groups
- configure and manage advanced alerts

Implement storage accounts

- select storage account options based on a use case

- configure Azure Files and Azure 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

Implement VMs for Windows and Linux

- configure high availability
- configure storage for VMs
- select virtual machine size
- implement Azure Dedicated Hosts
- deploy and configure Virtual Machine Scale Sets
- configure ~~Azure Disk Encryption~~[managed disk encryption](#)

Automate deployment and configuration of resources

- save a deployment as an Azure Resource Manager template
- modify Azure Resource Manager template (JSON and Bicep)
- evaluate location of new resources
- configure a VHD image
- deploy from an image
- manage an image library
- create and execute an Azure Automation runbook

Implement virtual networking

- implement VNet to VNet connections
- implement VNet peering

Implement Azure Active Directory

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

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
- configure Azure AD Connect cloud sync
- use Azure AD Connect Health

Implement management and security solutions (25-30%)

Manage workloads in Azure

- migrate workloads using Azure Migrate
- implement Azure Backup for Azure workloads
- implement disaster recovery
- implement Azure Automation_Update Management

Implement load balancing and network security

- implement Azure Load Balancer
- implement an Azure Application Gateway
- implement Web Application Firewall
- implement Azure Firewall
- implement Azure Firewall Manager
- implement Azure Front Door
- implement Azure Traffic Manager
- implement Network Security Groups and Application Security Groups
- implement Bastion

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 Azure Policy
- implement and configure Azure Blueprints

Manage security for applications

- implement and configure Key Vault
- implement and configure **m**Managed **j**identities
- register and manage applications in Azure AD

Implement solutions for apps (10-15%)

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 App Service
- configure networking for App Service
- create and manage deployment slots
- implement Logic Apps
- implement Azure Functions

Implement container-based applications

- create a container image
- configure Azure Kubernetes Service
- push container images
- deploy a solution on an Azure Container Instance

Implement and manage data platforms (10-15%)

Implement NoSQL databases

- configure Azure Storage tables
- select appropriate Cosmos DB APIs
- set up replicas in Cosmos DB

Implement Azure SQL databases

- configure Azure SQL database settings
- implement Azure SQL managed instances
- configure HA for an Azure SQL database
- deploy an Azure SQL database