

Exam AZ-301: Microsoft Azure Architect Design – Skills Measured

Determine workload requirements (10-15%)

Gather Information and Requirements

- identify compliance requirements
- identify identity and access management infrastructure
- identify service-oriented architectures
- identify accessibility requirements
- identify availability requirements
- identify capacity planning and scalability requirements
- identify deployability requirements
- identify configurability
- identify governance requirements
- identify maintainability requirements
- identify security requirements
- identify sizing requirements
- recommend changes during project execution
- evaluate products and services to align with solution
- create testing scenarios

Optimize Consumption Strategy

- optimize app service costs
- optimize compute costs
- optimize identity costs
- optimize network costs
- optimize storage costs

Design an Auditing and Monitoring Strategy

- define logical groupings for resources to be monitored
- determine levels and storage locations for logs
- plan for integration with monitoring tools
- recommend appropriate monitoring tools for a solution
- specify mechanism for event routing and escalation
- design auditing for compliance requirements
- design auditing policies and traceability requirements

Design for identity and security (20-25%)

Design Identity Management

- choose an identity management approach
- design an identity delegation strategy
- design an identity repository
- design self-service identity management
- design user and persona provisioning
- define personas
- define roles
- recommend appropriate access control strategy

Design Authentication

- choose an authentication approach
- design a single-sign on approach
- design for IPSec authentication
- design for logon authentication
- design for multi-factor authentication
- design for network access authentication
- design for remote authentication

Design Authorization

- choose an authorization approach
- define access permissions and privileges
- design secure delegated access
- recommend when and how to use API Keys

Design for Risk Prevention for Identity

- design a risk assessment strategy
- evaluate agreements involving services or products from vendors and contractors
- update solution design to address and mitigate changes to existing security policies, standards, guidelines and procedures

Design a Monitoring Strategy for Identity and Security

- design for alert notifications
- design an alert and metrics strategy
- recommend authentication monitors

Design a data platform solution (15-20%)

Design a Data Management Strategy

- choose between managed and unmanaged data store
- choose between relational and non-relational databases
- design a data auditing strategy
- design a data caching strategy
- identify data attributes
- recommend database service tier sizing
- design a data retention policy
- design for data availability
- design for data consistency
- design for data durability
- design a data warehouse strategy

Design a Data Protection Strategy

- recommend geographic data storage
- design an encryption strategy for data at rest
- design an encryption strategy for data in transmission
- design an encryption strategy for data in use
- design a scalability strategy for data
- design secure access to data
- design a data loss prevention (DLP) policy

Design and Document Data Flows

- identify data flow requirements
- create a data flow diagram
- design a data flow to meet business requirements
- design data flow solutions
- design a data import and export strategy

Design a Monitoring Strategy for the Data Platform

- design for alert notifications
- design an alert and metrics strategy
- monitor Azure Data Factory pipelines

Design a business continuity strategy (15-20%)

Design a Site Recovery Strategy

- design a recovery solution
- design a site recovery replication policy
- design for site recovery capacity
- design for storage replication
- design site failover and failback
- design the site recovery network
- recommend recovery objectives
- identify resources that require site recovery
- identify supported and unsupported workloads
- recommend a geographical distribution strategy

Design for High Availability

- design for application redundancy
- design for autoscaling
- design for data center and fault domain redundancy
- design for network redundancy
- identify resources that require high availability
- identify storage types for high availability
- design a disaster recovery strategy for individual workloads
- design failover/failback scenarios
- document recovery requirements
- identify resources that require backup
- recommend a geographic availability strategy

Design a Data Archiving Strategy

- recommend storage types and methodology for data archiving
- identify business compliance requirements for data archiving
- identify requirements for data archiving
- identify SLAs for data archiving

Design for deployment, migration, and integration (10-15%)

Design Deployments

- design a compute deployment strategy
- design a container deployment strategy
- design a data platform deployment strategy
- design a messaging solution deployment strategy
- design a storage deployment strategy
- design a web app and service deployment strategy

Design Migrations

- recommend a migration strategy
- design data import/export strategies during migration
- determine the appropriate application migration method
- determine the appropriate data transfer method
- determine the appropriate network connectivity method
- determine migration scope, including redundant, related, trivial, and outdated data
- determine application and data compatibility

Design an API Integration Strategy

- design an API gateway strategy
- determine policies for internal and external consumption of APIs
- recommend a hosting structure for API management

Design an infrastructure strategy (15-20%)

Design a Storage Strategy

- design a storage provisioning strategy
- design storage access strategy
- identify storage requirements
- recommend a storage solution
- recommend storage management tools

Design a Compute Strategy

- design a compute provisioning strategy
- design a secure compute strategy
- determine appropriate compute technologies
- design an Azure HPC environment
- identify compute requirements
- recommend management tools for compute

Design a Networking Strategy

- design a network provisioning strategy
- design a network security strategy
- determine appropriate network connectivity technologies
- identify networking requirements
- recommend network management tools
- recommend network security solutions

Design a Monitoring Strategy for Infrastructure

- design for alert notifications
- design an alert and metrics strategy