

# AZ-304 Microsoft Azure Architect Design Training

*COURSE CONTENT*

## GET IN TOUCH



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## About Multisoft

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## About Course

The AZ-304 Microsoft Azure Architect Design Training, provided by Multisoft Systems, is a comprehensive program aimed at preparing IT professionals and architects for the Microsoft Certified: Azure Solutions Architect Expert certification. This training focuses on developing the knowledge and skills required to design robust and scalable solutions on the Microsoft Azure cloud platform.

## Module 1: Design Monitoring

### **Design for cost optimization**

- ✓ Recommend a solution for cost management and cost reporting
- ✓ Recommend solutions to minimize costs

### **Design a solution for logging and monitoring**

- ✓ Determine levels and storage locations for logs
- ✓ Plan for integration with monitoring tools including Azure Monitor and Azure Sentinel Recommend appropriate monitoring tool(s) for a solution
- ✓ Choose a mechanism for event routing and escalation
- ✓ Recommend a logging solution for compliance requirements

## Module 2: Design Identity and Security

### **Design authentication**

- ✓ Recommend a solution for single-sign on
- ✓ Recommend a solution for authentication
- ✓ Recommend a solution for Conditional Access, including multi-factor authentication Recommend a solution for network access authentication
- ✓ Recommend a solution for a hybrid identity including Azure AD Connect and Azure AD Connect Health
- ✓ Recommend a solution for user self-service
- ✓ Recommend and implement a solution for B2B integration
- ✓ NOT: federation with ADFS

### **Design authorization**

- ✓ Choose an authorization approach
- ✓ Recommend a hierarchical structure that includes management groups, subscriptions and resource groups

- ✓ Recommend an access management solution including RBAC policies, access reviews, role assignments, physical access, Privileged Identity Management (PIM), Azure AD Identity Protection, Just in Time (JIT) access

## **Design governance**

- ✓ Recommend a strategy for tagging
- ✓ Recommend a solution for using Azure Policy
- ✓ Recommend a solution for using Azure Blueprint

## **Design security for applications**

- ✓ Recommend a solution that includes Key Vault

## **What can be stored in Key Vault**

- ✓ Key Vault operations
- ✓ Key Vault regions

## **Recommend a solution that includes Azure AD Managed Identities**

## **Recommend a solution for integrating applications into Azure AD**

## **Module 3: Design Data Storage**

### **Design a solution for databases**

- ✓ Select an appropriate data platform based on requirements
- ✓ Recommend database service tier sizing
- ✓ Recommend a solution for database scalability
- ✓ Recommend a solution for encrypting data at rest, data in transmission, and data in use

### **Design data integration**

- ✓ Recommend a data flow to meet business requirements
- ✓ Recommend a solution for data integration, including Azure Data Factory, Azure Data Bricks, Azure Data Lake, Azure Synapse Analytics

## Select an appropriate storage account

- ✓ Choose between storage tiers
- ✓ Recommend a storage access solution
- ✓ Recommend storage management tools

## Module 4: Design Business Continuity

### Design a solution for backup and recovery

- ✓ Recommend a recovery solution for Azure hybrid and on-premises workloads that meets recovery objectives (RTO, RLO, RPO)
- ✓ Design and Azure Site Recovery solution
  - Recommend a site recovery replication policy
  - Recommend a solution for site recovery capacity
  - Recommend a solution for site failover and failback (planned/unplanned)
  - Recommend a solution for the site recovery network
- ✓ Recommend a solution for recovery in different regions
- ✓ Recommend a solution for Azure Backup management
- ✓ Design a solution for data archiving and retention
  - Recommend storage types and methodology for data archiving
  - Identify business compliance requirements for data archiving
  - Identify requirements for data archiving
  - Identify SLA(s) for data archiving
  - Recommend a data retention policy

### Design for high availability

- ✓ Recommend a solution for application and workload redundancy, including compute, database, and storage
- ✓ Recommend a solution for autoscaling

- ✓ Identify resources that require high availability
- ✓ Identify storage types for high availability
- ✓ Recommend a solution for geo-redundancy of workloads

## Module 5: Design Infrastructure

### **Design a compute solution**

- ✓ Recommend a solution for compute provisioning
- ✓ Determine appropriate compute technologies, including virtual machines, App Services, Service Fabric, Azure Functions, Windows Virtual Desktop, and containers
- ✓ Recommend a solution for containers
  - AKS versus ACI and the configuration of each one
- ✓ Recommend a solution for automating compute management

### **Design a network solution**

- ✓ Recommend a solution for network addressing and name resolution
- ✓ Recommend a solution for network provisioning
- ✓ Recommend a solution for network security
  - Private endpoints
  - Firewalls
  - Gateways
- ✓ Recommend a solution for network connectivity to the Internet, on-premises networks, and other Azure virtual networks
- ✓ Recommend a solution for automating network management
- ✓ Recommend a solution for load balancing and traffic routing

### **Design application architecture**

- ✓ Recommend a microservices architecture including Event Grid, Event Hubs, Service Bus, Storage Queues, Logic Apps, Azure Functions, and webhooks

- ✓ Recommend an orchestration solution for deployment of applications including ARM templates, Logic Apps, or Azure Functions
  - Select an automation method
  - Choose which resources or lifecycle steps will be automated
  - Design integration with other sources such as an ITSM solution
- ✓ Recommend a solution for monitoring automation recommend a solution for API integration
- ✓ Design an API gateway strategy
- ✓ Determine policies for internal and external consumption of APIs
- ✓ Recommend a hosting structure for API management
- ✓ Recommend when and how to use API Keys

## Design migrations

- ✓ Assess and interpret on-premises servers, data, and applications for migration
- ✓ Recommend a solution for migrating applications and VMs
- ✓ Recommend a solution for migration of databases
  - Determine migration scope, including redundant, related, trivial