

AZ-305: Microsoft Azure Solutions Architect Expert

Overview

Microsoft Certified: Azure Solutions Architect Expert validates expertise in designing scalable, secure, and reliable solutions on Azure across compute, network, storage, and security domains.

Exam Details

- **Exam Code:** AZ-305
- **Duration:** 120 minutes
- **Questions:** 40-60 multiple choice
- **Passing Score:** ~700/1000
- **Cost:** \$165 USD
- **Prerequisites:** AZ-104 or equivalent Azure Admin experience required

Core Skills Tested

1. Compute Solutions

- Virtual machines and scale sets
- App Service and Azure Functions
- Container solutions (AKS, ACR)
- Serverless architectures

2. Data Solutions

- SQL Database and Azure SQL Managed Instance
- Azure Cosmos DB and data replication
- Data warehousing and analytics
- Data migration strategies

3. Network Architecture

- Virtual networks and hybrid connectivity
- Load balancing and traffic management
- DDoS protection and firewalls
- DNS and content delivery

4. Security & Identity

- Azure AD and conditional access
- RBAC and Azure Policy
- Key Vault and encryption
- Compliance and governance

5. Infrastructure as Code

- ARM templates and Bicep
- Terraform and automation
- Deployment strategies
- Infrastructure versioning

Study Topics

Architecture Patterns - Microservices, N-tier, serverless, hybrid cloud designs

Scalability - Auto-scaling, load balancing, performance optimization, capacity planning

High Availability - Redundancy, failover strategies, disaster recovery, backup solutions

Cost Optimization - Resource sizing, reserved instances, spot VMs, monitoring spend

Security Design - Network segmentation, encryption, identity federation, compliance requirements

Recommended Study Path

1. Complete AZ-104 certification first
2. Azure Solutions Architect Expert learning path (60+ hours)
3. Design real-world architecture solutions
4. Practice exams on Whizlabs/Pluralsight
5. Review Microsoft architecture guidance

Key Resources

- Microsoft Learn: learn.microsoft.com
- Azure Architecture Center: docs.microsoft.com/azure/architecture
- Practice Tests: Whizlabs, Pluralsight, Examtopics
- Well-Architected Framework: [docs.microsoft.com](https://docs.microsoft.com/en-us/architecture/)

Success Tips

- Focus on design principles and trade-offs
- Understand cost vs performance decisions
- Master high-availability architectures
- Design for security from inception
- Practice with real Azure deployments

