Study guide for Exam AZ-304: Microsoft Azure Architect Design

QUICK NAVIGATION

Document purpose

As an attendee of the Exam Prep session for **Exam AZ-304: Microsoft Azure Architect Design**, you can use this guide as a summary of the topics covered and to explore important links and additional resources. The information and materials found here can help you focus your studies as you prepare for the exam.

Skills measured

For the full list of the skills that the exam measures, along with the level of experience and expertise that you'll need as an exam candidate, check out the Exam AZ-304 skills outline.

Certification journey

For an overview of the journey to Microsoft Certification, including prerequisites (if any) and follow-up resources, explore The journey to Microsoft Certified: Azure Solutions Architect Expert.

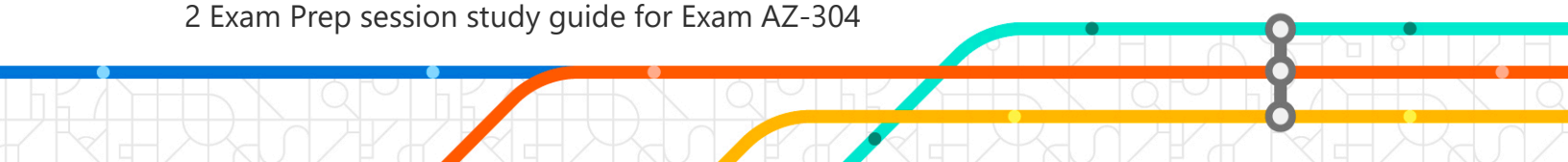
Exam overview

For information on the exam, including the types of questions you may encounter, read About Microsoft Certification exams.

Objective domains

This section itemizes the topics covered in the Exam Prep session and links to Microsoft documentation so you can review the topics in detail.

- Design infrastructure (25–30%)
- Design identity and security (25–30%)
- Design monitoring (10–15%)
- Design data storage (15–20%)
- Design business continuity (10–15%)



Design infrastructure (25–30%)

Design a compute solution

- Decision tree for compute services
- Containers and container orchestrators
- Microservices compute options
- Service Fabric application model
- Microservices overview with Service Fabric

Design a network solution

- Planning a virtual network
- Azure Traffic Manager overview
- Virtual network name resolution
- Azure Virtual Network security
- Secure and isolate networks with network security groups (NSGs)
- Secure and govern workloads with network level segmentation
- Virtual private network (VPN) gateway

Design migrations

- Azure Migrate
- Migration overview

Design an application architecture

- Create an API Gateway
- Reference architecture: Serverless web application
- Reference architecture: AI-based conversational chatbot
- Choosing a messaging model: Azure Event Hubs
- Microservices architectures
- Event-based cloud automation

Design identity and security (25–30%)

Design authentication

- Conditional Access overview
- Multi-Factor Authentication (MFA) overview
- How to connect single sign-on
- What is Azure AD Connect?
- Choosing the right authentication method for your Azure Active Directory hybrid identity solution
- Business-to-business identity solutions

Design authorization

- Protecting the resource hierarchy
- Identity Protection policies
- Investigating Identity Protection risks
- Privileged Identity Management (PIM)

Design governance

- Introduction to governance
- Azure Blueprints

Design security for applications

- Register an application with the Microsoft identity platform
- Managed identities
- What is Azure Key Vault?
- Azure Key Vault API

Design monitoring (10–15%)

Design for cost optimization

- Optimizing cost with the well-architected framework
- Cost management best practices
- Cost design checklist
- Microsoft assessment tools
- Cost Management framework
- Cost Management toolchain
- Creating budgets with Azure Cost Management

Design a solution for logging and monitoring

- Options for monitoring on Azure
- Reference architecture: Unified logging and monitoring solution
- Reference architecture: Hybrid performance monitoring
- Azure Monitor overview
- Azure Monitor references
- Resource logs tutorial
- Action groups

Design data storage (15–20%)

Design a solution for databases

- Securing your Azure SQL database
- Securing data at rest

Select an appropriate storage account

- Create an Azure Storage account
- Secure your Azure Storage
- Optimize storage performance and costs using Blob storage tiers
- Make your application storage highly available with read-access geo-redundant storage
- Copy and move blobs from one container or storage account to another from the command line and in code
- Move large amounts of data to the cloud by using the Azure Data Box family
- Monitor, diagnose, and troubleshoot your Azure Storage

Design data integration

- Provision an Azure SQL database to store application data

Design business continuity (10–15%)

Design a solution for backup and recovery

- Protect on-premises infrastructure with Azure Site Recovery
- Protect virtual machines with Azure Backup

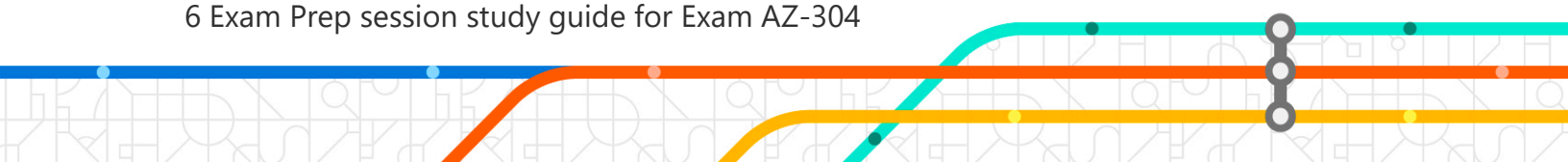
Design a solution for high availability

- Provision an Azure SQL database to store application data
- High availability for Azure Virtual Machines
- Designing applications for high availability
- Designing a geographically distributed application

Additional study resources

In addition to the documentation listed in the previous sections, we offer several resources to help you prepare for the exam and to stay up to speed and engaged with the Azure community. These resources range from formal training to blogs and even interviews with Microsoft team members.

Course AZ-304T00-A: Microsoft Azure Architect Design	Take a four-day instructor-led course that covers how to translate business requirements into secure, scalable, and reliable solutions and combines lectures with practical, hands-on exercises.
AZ-304 learning paths	Don't miss these free, self-paced online resources to help you gain the skills needed to earn your certification.
AZ-304: Microsoft Azure Architect Design – Microsoft Official Practice Test	Microsoft Official Practice Tests are self-study tools that prepare candidates for the Microsoft required exams. These practice tests are written by subject matter experts and are designed to ensure that all crucial exam objectives are covered in-depth.
Azure documentation	Stay informed on the latest products, tools, and features, and get information on pricing, partners, support, solutions, and more.
Azure Community Support	Ask questions, get answers, and connect with Microsoft engineers and Azure community experts.
Microsoft Learn Community Blog	Get the latest information about certification tests and exam study groups.
Channel 9	Explore this community site for customers. It includes video channels, discussions, podcasts, screencasts, and interviews.
Azure Tuesdays with Corey	Corey Sanders answers your questions about Microsoft Azure.



Azure Fridays	Scott Hanselman, Partner Program Manager, speaks with Azure engineers as they demo capabilities and share insights.
Microsoft Azure Blog	Keep current on what's happening in Azure, including what's in preview and what's generally available, along with Azure news, updates, and much more.