Study guide for Exam AZ-303: Microsoft Azure Architect Technologies

QUICK NAVIGATION

Document purpose

As an attendee of the Exam Prep session for **Exam AZ-303: Microsoft Azure Architect Technologies**, 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.

About Exam AZ-303: Microsoft Azure Architect Technologies

Exam AZ-303 is one of the requirements to earn the **Azure Solutions Architect Expert certification**.

The exam measures your ability to accomplish the following technical tasks: implement and monitor an Azure infrastructure; implement management and security solutions; implement solutions for apps; and implement and manage data platforms.

As a candidate for this exam, you should have advanced experience and knowledge of IT operations, including networking, virtualization, identity, security, business continuity, disaster recovery, data platform, budgeting, and governance. In addition, you should have expert-level skills in Azure administration and have experience with Azure development and DevOps processes.

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-303 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.

- Implement and monitor an Azure infrastructure (50–55%)
- Implement management and security solutions (20–25%)
- Implement solutions for apps (10–15%)
- Implement and manage data platforms (10–15%)

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

Implement virtual networking

- [Azure Virtual Networks overview](#)

Implement virtual machines for Windows and Linux

- [Create a Windows virtual machine](#)
- [Architect secure infrastructure](#)
- [Azure Disk Encryption overview](#)
- [High availability for Azure virtual machines](#)

Automate deployment and configuration of resources

- [Define templates](#)
- [Explore template structure](#)
- [Profile the data](#)
- [Template syntax](#)
- [Gen 2 virtual machines](#)
- [Creating a runbook](#)

Implement storage accounts

- [Storage File Active Directory overview](#)
- [Create a storage account](#)
- [Azure Blob storage introduction](#)
- [Azure Storage authorization options](#)
- [How to use shared access signatures (SAS)](#)
- [Storage SAS overview](#)
- [Storage keys overview](#)
- [Manage storage account keys](#)
- [Application storage with geo-redundancy](#)

Implement Azure Active Directory

- [Identity and access management](#)
- [Add custom domain name to Azure Active Directory (AD)](#)
- [Design high availability applications](#)
- [Azure Storage redundancy](#)
- [Secure Azure AD users with Multi-Factor Authentication (MFA)](#)
- [Overview of Conditional Access](#)
- [MFA: How it works](#)
- [External identities—delegate invitations](#)
- [External identities—add user administrator](#)

Implement and manage hybrid identities

- [Azure AD Connect](#)
- [How to connect single sign-on (SSO)](#)
- [How to install Azure AD Connect Health](#)

Implement cloud infrastructure monitoring

- [Azure Security Center](#)
- [Security Center planning and ops guide](#)
- [Azure Monitor](#)
- [Azure Monitor Insights](#)
- [Architecting infrastructure operations](#)
- [Design a monitoring strategy on Azure](#)
- [Continuous monitoring](#)
- [Azure monitoring options](#)
- [Azure Service Health](#)
- [Using analytics to gain cost insights](#)
- [Azure Cost Management](#)
- [Application Insights](#)
- [Resource logs tutorial](#)
- [Action groups](#)

Implement management and security solutions (20–25%)

Implement load balancing and network security

- Improve application scalability and resiliency with Load Balancer
- Load balance web traffic with Application Gateway
- Scalable web application reference architecture
- Azure Front Door overview
- Distribute load with Azure Traffic Manager
- Architecting network infrastructure
- Secure and isolate with network security groups (NSGs) and service endpoints
- Manage Windows virtual machines with Azure Bastion

Manage workloads in Azure

- Migrate application workloads
- Why use Azure Backup
- Protect virtual machines with Azure Backup
- Azure Site Recovery overview
- Keep your virtual machines updated

Implement and manage Azure governance solutions

- Introduction to governance
- Get started with the Azure Enterprise portal
- Management groups overview
- Role-based access control (RBAC) overview
- Manage subscription access using Azure RBAC
- Role assignments in the portal
- Access reviews overview
- Azure Blueprints

Manage security for applications

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

Implement solutions for apps (10–15%)

Implement an application infrastructure

- [Deploy a website with Azure App Service](#)
- [Deploy and run a containerized web app](#)
- [Manage an App Service plan](#)
- [App Service pricing](#)
- [Networking considerations for an App Service environment](#)
- [Azure Logic Apps overview](#)
- [Create your first Logic Apps workflow](#)
- [Azure Functions overview](#)
- [Azure Functions triggers and bindings](#)

Implement container-based applications

- [Kubernetes Learning Path](#)
- [Introduction to Azure Container Registry](#)
- [Azure Container Instances](#)
- [What is Docker?](#)
- [How Docker images work](#)
- [Run Docker with Azure Container Instances](#)
- [Deploying a container instance in Azure using the Azure CLI](#)

Implement and manage data platforms (10–15%)

Implement NoSQL databases

- [Choose an API for Azure Cosmos DB](#)

Implement Azure SQL databases

- [Provision an Azure SQL database to store application data](#)

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-303T00-A: Microsoft Azure Architect Technologies](#)	Take a five-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.
[Course AZ-030T00-A: Microsoft Azure technologies for AWS architects](#)	Take a four-day instructor-led course that teaches Solutions Architects who have previously designed for Amazon Web Services how to translate business requirements into secure, scalable, and reliable solutions for Azure.
[AZ-303 learning paths](#)	Don't miss these free, self-paced online resources to help you gain the skills needed to earn your certification.
[AZ-303: Microsoft Azure Architect Technologies – 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.