Study Guide

Exam AZ-900: Microsoft Azure Fundamentals

Quick navigation

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Purpose of this document

This study guide should help you understand what to expect on *Exam AZ-900: Microsoft Azure Fundamentals* and includes a summary of the topics the exam might cover and links to additional resources. The information and materials in this document should help you focus your studies as you prepare for the exam.

Certification

Certification journey

For an overview of attaining Microsoft Certification, including prerequisites (if any) and additional resources, explore The journey to Microsoft Certified: Azure Fundamentals.

Certification renewal

Once you earn your certification, don't let it expire. When you have an active certification that's expiring within six months, you should renew it—at no cost—by passing a renewal assessment on Microsoft Learn. Remember to renew your certification annually, if you want to retain it.

To identify which certifications are available for you to renew, visit your Certifications in your Microsoft Learn profile:

- Ensure your certification profile is connected to your Microsoft Learn profile.
- Expect an email that directs you to the applicable assessment that you must pass on Microsoft Learn. You'll receive this email as soon as you have a certification that you're eligible to renew.
- When you pass an online assessment, your certification will extend by one year from the current expiration date.
- To help prepare for the assessment, explore the collection of free modules on the certification renewal page.

About the exam

Exam AZ-900: Microsoft Azure Fundamentals is required to earn the Azure Fundamentals certification.

This exam measures your ability to describe the following: cloud concepts; Azure architecture and services; and Azure management and governance.

As an exam candidate, you should have foundational knowledge of cloud services and how those services are provided with Microsoft Azure. The exam is intended for candidates who are just beginning to work with cloud-based solutions and services or are new to Azure. You should be familiar with the general technology concepts, including concepts of networking, storage, compute, application support, and application development.

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Passing score

A passing score is 700. Learn more about exam scores.

What to expect on the exam

Are you new to Microsoft certification exams? You can explore the exam environment by visiting our exam sandbox. We created the sandbox so you have an opportunity to experience an exam before you take it. In the sandbox, you can interact with different question types, such as *build list*, *case studies*, and others that you might encounter in the user interface when you take an exam. Additionally, it includes the introductory screens, instructions, and help related to the different types of questions that your exam might include and the non-disclosure agreement that you must accept before you can launch the exam.

Prepare to take the exam

There are several points to consider, or pursue, as you prepare for an exam. The following sections detail those points.

Request accommodations

We're committed to ensuring all learners are set up for success. If you use assistive devices, require extra time, or need modification to any part of the exam experience, you can request an accommodation. We encourage you to learn more about available accommodations and how to obtain them by visiting this page.

Take practice tests

Taking a practice test is a great way to know whether you're ready to take the exam or if you need to study a bit more. Subject-matter experts write the Microsoft Official Practice Tests, which are designed to assess all exam objectives. Take the AZ-900: Microsoft Azure Fundamentals Microsoft Official Practice Test.

Objective domain: skills the exam measures

The English language version of this exam was updated on May 5, 2022.

Some exams are localized into other languages, and those are updated approximately eight weeks after the English version is updated. Other available languages are listed in the **Schedule Exam** section of the **Exam Details** webpage. If the exam isn't available in your preferred language, you can request an additional 30 minutes to complete the exam.

> **Note**
> The bullets that follow each of the skills measured are intended to illustrate how we are assessing that skill. Related topics may be covered in the exam.

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> **Note**
> Most questions cover features that are general availability (GA). The exam may contain questions on Preview features if those features are commonly used.

Skills measured

- Describe cloud concepts (25–30%)
- Describe Azure architecture and services (35–40%)
- Describe Azure management and governance (30–35%)

Functional groups

Describe cloud concepts (25—30%)

Describe cloud computing

- Define cloud computing
- Describe the shared responsibility model
- Define cloud models, including public, private, and hybrid
- Identify appropriate use cases for each cloud model
- Describe the consumption-based model
- Compare cloud pricing models

Describe the benefits of using cloud services

- Describe the benefits of high availability and scalability in the cloud
- Describe the benefits of reliability and predictability in the cloud
- Describe the benefits of security and governance in the cloud
- Describe the benefits of manageability in the cloud

Describe cloud service types

- Describe infrastructure as a service (IaaS)
- Describe platform as a service (PaaS)
- Describe software as a service (SaaS)
- Identify appropriate use cases for each cloud service (IaaS, PaaS, SaaS)

Describe Azure architecture and services (35—40%)

Describe the core architectural components of Azure

- Describe Azure regional, regional pairs, and sovereign regions
- Describe availability zones
- Describe Azure datacenters

- Describe Azure resources and resource groups
- Describe subscriptions
- Describe management groups
- Describe the hierarchy of resource groups, subscriptions, and management groups

Describe Azure compute and networking services

- Compare compute types, including container instances, virtual machines (VMs), and functions
- Describe VM options, including Azure Virtual Machines, Azure Virtual Machine Scale Sets, availability sets, and Azure Virtual Desktop
- Describe resources required for virtual machines
- Describe application hosting options, including the Web Apps feature of Azure App Service, containers, and virtual machines
- Describe virtual networking, including the purpose of Azure Virtual Networks, Azure virtual subnets, peering, Azure DNS, Azure VPN Gateway, and Azure ExpressRoute
- Define public and private endpoints

Describe Azure storage services

- Compare Azure storage services
- Describe storage tiers
- Describe redundancy options
- Describe storage account options and storage types
- Identify options for moving files, including AzCopy, Azure Storage Explorer, and Azure File Sync
- Describe migration options, including Azure Migrate and Azure Data Box

Describe Azure identity, access, and security

- Describe directory services in Azure, including Azure Active Directory (Azure AD) and Azure Active Directory Domain Services (Azure AD DS)
- Describe authentication methods in Azure, including single sign-on (SSO), multifactor authentication, and passwordless
- Describe external identities and guest access in Azure
- Describe Azure AD Conditional Access
- Describe Azure role-based access control (RBAC)
- Describe the concept of Zero Trust
- Describe the purpose of the defense in depth model
- Describe the purpose of Microsoft Defender for Cloud

Describe Azure management and governance (30—35%)

Describe cost management in Azure

- Describe factors that can affect costs in Azure
- Compare the Pricing calculator and the Total Cost of Ownership (TCO) calculator

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- Describe the Azure Cost Management and Billing tool
- Describe the purpose of tags

Describe features and tools in Azure for governance and compliance

- Describe the purpose of Azure Blueprints
- Describe the purpose of Azure Policy
- Describe the purpose of resource locks
- Describe the purpose of the Service Trust Portal

Describe features and tools for managing and deploying Azure resources

- Describe the Azure portal
- Describe Azure Cloud Shell, including Azure CLI and Azure PowerShell
- Describe the purpose of Azure Arc
- Describe Azure Resource Manager and Azure Resource Manager templates (ARM templates)

Describe monitoring tools in Azure

- Describe the purpose of Azure Advisor
- Describe Azure Service Health
- Describe Azure Monitor, including Log Analytics, Azure Monitor alerts, and Application Insights

Corresponding learning paths and modules

The design of learning paths and modules should teach you how to perform a role and will help you study for the applicable exam. However, learning paths aren't always in the same order as an exam's "skills measured" list. Therefore, we've created a convenient table that links the skills measured to specific paths and modules.

Exam skills measured	Links to learning paths
Describe cloud concepts (25–30%)	AZ-900 Learning Path: Describe cloud concepts • Introduction to Azure fundamentals • Discuss Azure fundamental concepts • Implement Hybrid identity
Describe Azure architecture and services (35–40%)	AZ-900 Learning Path: Describe core Azure services AZ-900 Learning Path: Describe core solutions and management tools on Azure • Describe core Azure architectural components

Exam skills measured	Links to learning paths
	• [Explore Azure compute services](#) • [Explore Azure networking services](#) • [Explore Azure Storage services](#) • [Secure access to your applications by using Azure identity services](#) • [Protect against security threats on Azure](#) • [Secure network connectivity on Azure](#)
Describe Azure management and governance (30–35%)	[AZ-900 Learning Path: Describe Azure cost management and service level agreements](#) • [Plan and manage your Azure costs](#) [AZ-900 Learning Path: Describe identity, governance, privacy, and compliance features](#) • [Design an enterprise governance strategy](#) • [Build a cloud governance strategy on Azure](#) • [Choose the best monitoring service for visibility, insight, and outage mitigation](#)

Additional study resources

We offer several resources to help you prepare for the exam and stay current and engaged with the Microsoft Azure community. These resources range from formal training to blogs and even interviews with Microsoft team members.

Study resource link	Resource description
[Course AZ-900T00: Microsoft Azure Fundamentals](#)	Take an instructor-led course that provides foundational level knowledge on Azure concepts; core Azure services; core solutions and management tools; general security and network security; governance, privacy, and compliance features; Azure cost management and service level agreements.
[Azure documentation](#)	Stay informed on the latest products, tools, and features, and get information on pricing, partners, support, solutions, and more.

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Study resource link	Resource description
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.
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.

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