



# The Ultimate AZ-500 Exam Prep Guide

Resource links, reading, video, and training resources

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## Introduction

This guide includes Microsoft documentation and study resources for [skills tested](#) in all four domains of the AZ-500 exam, including exam updates up to **September 29, 2021**. If you follow the recommendations in this guide, including reading, video, and some hands-on practice, I am confident you will be ready to crush it on exam day! While I can share with you the material that will enable you to ensure you are well-prepared, I am forbidden from sharing details of the exam itself. Therefore, my focus is to help you prepare quickly and effectively for anything you might encounter.

## FREE AZ-500 Exam Training Resources

To help AZ-500 candidates prepare faster and more effectively, I have made additional free AZ-500 preparation resources available with two new AZ-500 video series on Youtube. Read on!

### AZ-500 Exam Prep Training Series (LinkedIn Learning)

The following links will give you **free access to each course for 24 hours after you click the link!** So, only click the link when you are ready to take the course, and you should be fine, even if you do not have LinkedIn Premium access. I created a course for each of the five courses.

The series is designed to get you ready FAST! The courses are comprised of a single 3-5 min session for each skill tested on the exam. That just over 6 hours, 15 minutes of content! If you want, you can get through this entire series in a day!

Course Title	Length	Access Link
AZ-500 Cert Prep: 1 Manage Identity and Access ( <b>Domain 1</b> )	1 hour, 3 min	<a href="#">HERE</a>
AZ-500 Cert Prep: 2 Policy and Data Infrastructure ( <b>Domain 2</b> )	1 hour, 37 min	<a href="#">HERE</a>
AZ-500 Cert Prep: 3 Manage Security Operations ( <b>Domain 3</b> )	44 minutes	<a href="#">HERE</a>
AZ-500 Cert Prep: 4 Policy and Data Infrastructure ( <b>Domain 4, Part 1</b> )	57 minutes	<a href="#">HERE</a>

## AZ-500 on Microsoft Learn

You can find FREE self-paced, hands-on training from Microsoft, which includes FREE Azure access for hands on labs using a feature called **Azure Sandbox**. This free training is available at the URL below.

<https://docs.microsoft.com/en-us/learn/certifications/exams/az-500?tab=tab-learning-paths>

## AZ-500 Exam Cram Series + Video Practice Exams (Youtube)

Here are some new AZ-500 preparation resources designed to improve your prep strategy and focus. Hearing a lot of positive feedback from candidates leveraging these resources together with my LinkedIn Learning content.

### AZ-500 Exam Cram Series

This 4-part series is 75 minutes of exam info, tips, and guidance designed to shorten your preparation with targeted information. It is a great use of the NEXT 75 minutes you spend preparing for the exam.

### AZ-500 Video Practice Exams

These 4 exams of 30 questions each give you a narrated practice quiz complete with explanations.

Both these series are available in this video playlist at “Inside Azure Management” on YouTube:  
[https://www.youtube.com/playlist?list=PL7XJSuT7Dq\\_WwvTjQZxma9xGyN1Yrpkf](https://www.youtube.com/playlist?list=PL7XJSuT7Dq_WwvTjQZxma9xGyN1Yrpkf)

Add to this with Microsoft Learn material for AZ-500, which includes FREE.

## Quick Exam Strategy Guidance

There are a couple of Youtube videos to give you a head start on how to prepare, especially if you have limited budget or no Azure subscription.

**Microsoft AZ-500 Exam Cram Series (4 parts)** - <https://youtu.be/jdsBolMxhiw>  
**5 Tips and FREE Resources for Better Microsoft AZ-500 Exam Prep** - [https://youtu.be/231p\\_-M1kqM](https://youtu.be/231p_-M1kqM)  
**Azure Certification – FREE Azure Access for Microsoft Exam Prep** - <https://youtu.be/KjaQzkwSt9k>

You will find more and more Azure tutorials and Microsoft exam prep videos on our “**Inside Azure Management**” Youtube channel over time. Be sure to Subscribe and get notifications by clicking [HERE](#).

## Lab setup

To get the most from this guide you need the following trial subscriptions or equivalent access:

- An Azure subscription
- An EMS E5
- Azure Security Center Standard
- Azure Sentinel
- Access to LinkedIn Learning (*Connect with me on LinkedIn for a free trial if you need one!*)

If you are missing any of the above, do not worry. There is ample reading and learning material, as well as several free video links throughout this guide.

## What to expect on the exam

There are a few things that will help you better prepare for the exam:

- **Plan for 3 ½ hours (210 minutes).** The exam is 180 minutes, with up to 30 minutes for various surveys and exam tutorial items. **HOWEVER, with adaptive exams being the norm, you may well finish much sooner if you are well-prepared.**
- **Know the solutions hands-on.** You may encounter simulations on the exam that test your knowledge of feature configuration.

I hate to state the obvious, but it bears repeating. Remember to get plenty of rest the night before the exam. For a potentially long exam experience, you want to have a clear head.

## Should I just use a practice exam?

Practice exams can help you determine where you need to focus your study time. You can find AZ-500 practice exam material in a few places:

- My video practice quizzes on YouTube [HERE](#)
- 5 days free access to AZ-500 practice quizzes at Starweaver (<https://learning.starweaver.com/>)
- Udemy.com has many quizzes, though quality varies widely

Now let's get started.

## Domain 1: Manage Identity and Access (30-35%)

**LinkedIn Learning Course:** [AZ-500 Exam Prep – Manage Identity and Access](#)

[Back to ToC](#)

This domain is all about managing identity and access in Azure. You will want EMS E5, which includes Azure AD Plan 2 and all the advanced features covered in this domain. *Links to relevant reading, tutorials, and training for each skill tested are listed below.*

### 1. Manage Azure Active Directory identities

#### 1. Create and manage a managed identity for Azure resources

- [Managed identities for Azure resources | Microsoft Docs](#)

#### 2. Manage Microsoft Azure AD Groups

- [Manage Microsoft Azure AD directory groups](#)

#### 3. Manage Microsoft Azure AD Users

- [Manage Microsoft Azure AD users](#)

#### 4. Manage external identities by using Azure AD

[Azure Active Directory B2C documentation | Microsoft Docs](#)

#### 5. Managed Administrative Units

- [Administrative units in Azure Active Directory | Microsoft Docs](#)

#### 6. Configure authentication methods including password hash and Pass Through Authentication (PTA), OAuth, and passwordless

- [Choose the right authentication method for your Azure Active Directory hybrid identity solution](#)
- [Azure AD Passthrough Authentication](#)
- **VIDEO:** Choose the right authentication method - <https://youtu.be/YtW2cmVqSEw>

### 2. Configure secure access by using Azure AD

#### 1. Configure Azure AD Privileged Identity Management (PIM)

- [Configure Azure AD role settings in PIM - Azure AD | Microsoft Docs](#)

## 2. Implement Conditional Access policies including Multi-Factor Authentication (MFA)

- [Implement conditional access policies](#)
- **VIDEO:** [Configure per-application access rules](#) from the [Microsoft Cybersecurity Stack: Identity and Endpoint Basics](#) course on LinkedIn Learning.
- **VIDEO:** [Configure device-based access rules](#) from the [Microsoft Cybersecurity Stack: Identity and Endpoint Basics](#) course on LinkedIn Learning.
- **VIDEO:** [Configure location-based access rules](#) from the [Microsoft Cybersecurity Stack: Identity and Endpoint Basics](#) course on LinkedIn Learning.
- **VIDEO:** [Configure risk-based access rules](#) from the [Microsoft Cybersecurity Stack: Identity and Endpoint Basics](#) course on LinkedIn Learning.

## 3. Configure Azure AD Identity Protection

- [What is Azure AD identity protection?](#)
- [Identity Protection policies](#)
- **VIDEO:** [Configure Risk-based Policies](#) from the [Microsoft Cybersecurity Stack: Identity and Endpoint Basics](#) course on LinkedIn Learning.
- **VIDEO:** [Configure risk-levels and policies](#) from the [Microsoft Cybersecurity Stack: Advanced Identity and Endpoint Protection](#) course on LinkedIn Learning.

## 4. Implement passwordless authentication

- [Azure Active Directory passwordless sign-in | Microsoft Docs](#)

## 5. Configure access reviews

- [Configure access reviews](#)

## 3. Manage application access

### 1. Integrate single sign-on (SSO) and identity providers for authentication

- [Tutorial: Azure Active Directory single sign-on \(SSO\) integration with ServiceNow | Microsoft Docs](#)
- [Azure Single Sign On SAML Protocol - Microsoft identity platform | Microsoft Docs](#)
- [Identity providers for External Identities - Azure AD | Microsoft Docs](#)

### 2. Create an app registration

- [Create App registration](#)

### 3. Configure App Registration permission scopes

- [Configure App registration permission scopes](#)

### 4. Manage App Registration permission consent

- [Manage App registration permission consent](#)

### 5. Manage API access to Azure subscriptions and resources

- [Manage API access to Microsoft Azure subscriptions and resources](#)

### 6. Configure and authentication method for a service principal

- [Authentication Method - service principal | Microsoft Docs](#)
- [Authenticate with service principal - Azure Container Registry | Microsoft Docs](#)
- [Create an Azure AD app and service principal in the portal - Microsoft identity platform | Microsoft Docs](#)

## 4. Manage access control

### 1. Configure Azure role permissions for management groups, subscriptions, resource groups, and resources

### 2. Interpret role and resource permissions

- [Administrator role permissions in Azure Active Directory](#)
- [Configure subscription and resource permissions](#)
- [Manage resource group security with Azure RBAC](#)
- [Quickstart: View the access a user has to Azure resources](#)

### 3. Assign built-in Azure AD roles

- [Administrator role permissions in Azure Active Directory](#)

### 4. Create and assign custom roles, including Azure roles and Azure AD roles

- [Configure custom RBAC roles](#)
- [Built-in roles for Azure resources](#)



## Domain 2: Implement Platform Protection (15-20%)

**LinkedIn Learning Course:** [AZ-500 Exam Prep – Implement Platform Protection](#)

[Back to ToC](#)

This domain is focuses on infrastructure, application, and network in Azure. There is a vast array of tech in this section, so you will want access to an Azure trial so you can spend hands-on time with the areas you are unfamiliar.

### 1. Implement advanced network security

#### 1. Secure the connectivity of hybrid networks

- [Configure a VNet-to-VNet VPN gateway connection by using the Azure portal](#)
- [Virtual Network Peering](#)
- [Plan Virtual Networks](#)
- [ExpressRoute encryption](#)

#### 2. Secure the connectivity of virtual networks

- [Network Security Groups](#)
- [Enable Network Security Groups in Azure Security Center](#)
- [Create and configure application security groups](#)
- [Services Tags](#)

#### 3. Create and configure Microsoft Azure Firewall

- [What is Azure Firewall?](#)
- [Azure Firewall documentation](#)
- [Deploy and configure Azure Firewall using the Azure portal](#)
- [Monitor Azure Firewall logs and metrics](#)

#### 4. Create and configure Azure Firewall Manager

- [What is Azure Firewall Manager?](#)
- [Tutorial: Secure your virtual hub using Azure Firewall Manager](#)

#### 5. Create and configure Azure Application Gateway

- [Azure Application Gateway documentation | Microsoft Docs](#)
- [Azure Application Gateway configuration overview | Microsoft Docs](#)
- [Tutorial: Hosts multiple web sites using the Azure portal - Azure Application Gateway | Microsoft Docs](#)

## 6. Create and configure Azure Front Door

- [Azure Front Door Service](#)

## 7. Create and configure a Web Application Firewall (WAF)

- [Quickstart: Create an Azure WAF v2 on Application Gateway using an ARM template](#)
- [Configure Web Application Firewall in the Azure portal](#)
- [Tutorial: Create an application gateway with Azure Web Application Firewall in the Azure portal](#)

## 8. Configure a resource firewall, including storage account, Azure SQL, Azure Key Vault, or Azure App Service

- [Configure Azure Storage firewalls and virtual networks](#)
- [Azure SQL Database and SQL Data Warehouse IP firewall rules](#)

## 9. Configure network isolation for Web Apps and Azure Functions

- [Azure Functions networking options | Microsoft Docs](#)
- [Isolation in the Azure Public Cloud | Microsoft Docs](#)

## 10. Implement Service Endpoints

- [Create service endpoints - Azure DevOps | Microsoft Docs](#)
- [Azure virtual network service endpoints | Microsoft Docs](#)

## 11. Implement Azure Private Endpoints, including integrating with other services

- [What is an Azure Private Endpoint? | Microsoft Docs](#)

## 12. Implement Azure Private Links

- [What is Azure Private Link service? | Microsoft Docs](#)
- [Private Link Documentation - Quickstarts, How to guides, and API references | Microsoft Docs](#)
- [Quickstart: Create a Private Link service by using the Azure portal](#)

## 13. Implement DDoS protection

- [Azure DDoS Protection Standard overview](#)

## 2. Configure advanced security for compute

### 1. Configure Azure Endpoint Protection for virtual machines

- [Manage endpoint protection issues with Azure Security Center](#)
- 2. Implement and manage security updates for VMs**
    - [Manage updates and patches for your Azure VMs](#)
    - [VM agents and extensions](#)
  - 3. Configure security for different types of container services**
    - [Configure AKS security – Security concepts for applications and clusters in Azure Kubernetes Service \(AKS\)](#)
    - [Security considerations for Azure Container Instances](#)
  - 4. Manage access to Azure Container Registry**
    - [Authenticate with an Azure container registry](#)
    - [Best practices for Azure Container Registry](#)
    - [Configure authentication – Service principals with Azure Kubernetes Service \(AKS\)](#)
    - [Configure container registry](#)
  - 5. Configure security for serverless compute**
    - [Azure Serverless | Microsoft Azure](#)
    - [Serverless compute tier - Azure SQL Database | Microsoft Docs](#)
    - [Serverless Functions overview - Azure Example Scenarios | Microsoft Docs](#)
  - 6. Configure security for an Azure App Service**
    - [Protect your Azure App Service web apps and APIs](#)
  - 7. Configure encryption at rest**
    - [Azure Data Encryption-at-Rest - Azure Security | Microsoft Docs](#)
    - [QUICKSTART: Create and encrypt a Windows virtual machine with the Azure portal](#)
    - [Azure Storage Encryption for data at rest](#)
  - 8. Configure encryption in transit**
    - [Encryption for data-in-transit - Microsoft Service Assurance | Microsoft Docs](#)
    - [Add an SSL certificate in Azure App Service](#)
    - [Configuring the free TLS/SSL certificates on Azure App Service](#)

## Domain 3: Manage Security Operations (25-30%)

**LinkedIn Learning Course:** [AZ-500 Exam Prep – Manage Security Operations](#)

This domain focuses on Azure Security Center, Azure Sentinel, and Azure Governance.

## 1. Configure centralized policy management

### 1. Configure a custom security policy

- [Create custom security policies in Azure Security Center | Microsoft Docs](#)
- [Working with security policies | Microsoft Docs](#)

### 2. Create a policy initiative

- [Overview of Azure Policy - Azure Policy | Microsoft Docs](#)
- [Overview of Azure Policy - Azure Policy | Microsoft Docs](#)
- [Pattern: Group policy definitions with initiatives - Azure Policy | Microsoft Docs](#)
- [List of built-in policy initiatives - Azure Policy | Microsoft Docs](#)

### 3. Configure security settings and auditing by using Azure Policy

- [Working with security policies | Microsoft Docs](#)
- [Azure security logging and auditing | Microsoft Docs](#)

## 2. Configure and manage threat protection

### 1. Configure Azure Defender for Servers (not including Microsoft Defender for Endpoint)

- [Azure Defender for servers - the benefits and features | Microsoft Docs](#)

### 2. Evaluate vulnerability scans from Azure Defender

- [Integrated vulnerability scanner for virtual machines \(standard tier only\)](#)

### 3. Configure Azure Defender for SQL

- [How to set up Microsoft Defender for SQL | Microsoft Docs](#)

### 4. Use the Microsoft Threat Modeling Tool

- [Microsoft Threat Modeling Tool overview - Azure | Microsoft Docs](#)
- [Getting Started - Microsoft Threat Modeling Tool - Azure | Microsoft Docs](#)
- [Microsoft Threat Modeling Tool release 07/29/2020 - Azure | Microsoft Docs](#)

## 3. Configure and manage security monitoring solutions

### 1. Create and customize alert rules using Azure Monitor

- [Create, view, and manage activity log alerts by using Azure Monitor](#)
- 2. Configure diagnostic logging and log retention by using Azure Monitor**
  - [Enable diagnostics logging for apps in Azure App Service](#)
  - [Changing the log data retention period](#)
- 3. Monitor security logs by using Azure Monitor**
  - [Data collection in Azure Security Center \(#data collection tier\)](#)
- 4. Create and customize alert rules in Azure Sentinel**
  - [Tutorial: Create custom analytic rules to detect suspicious threats](#)
- 5. Configure connectors in Azure Sentinel**
  - [Quickstart: On-board Azure Sentinel](#)
  - [Azure Sentinel data connectors](#)
- 6. Evaluate alerts and incidents in Azure Sentinel**
  - [Create incidents from alerts in Azure Sentinel](#)
  - [Tutorial: Investigate incidents with Azure Sentinel](#)

## Domain 4: Secure Data and Applications (25-30%)

**LinkedIn Learning Course:** [AZ-500 Exam Prep – Policy and Data Infrastructure](#)

[Back to ToC](#)

This domain is focuses on Azure Storage, Azure SQL, and Key Vault.

### 1. Configure security for storage

#### 1. Configure access control for storage accounts

- [Authorizing access to data in Azure Storage](#)
- [Create SAS tokens and integrate with Azure Key Vault](#)
- [Grant limited access to Azure Storage resources using shared access signatures \(SAS\)](#)

#### 2. Configure storage account access keys

- [TUTORIAL: Set up Azure Key Vault with key rotation and auditing](#)

#### 3. Configure Azure AD authentication for Azure Storage and Azure Files

- [Azure Storage support for Azure Active Directory-based access control generally available](#)
- [Overview of Azure Files identity-based authentication support for SMB access](#)

### 2. Configure security for databases

#### 1. Enable database authentication by using Azure AD

- [Configure centralized policy management by using Azure Security Center](#)

#### 2. Enable database auditing

- [Azure SQL Auditing for Azure SQL Database and Azure Synapse Analytics](#)

#### 3. Configure dynamic masking on SQL workloads

[Dynamic data masking - Azure SQL Database | Microsoft Docs](#)

#### 4. Implement database encryption for Azure SQL Database

- [Transparent data encryption for SQL Database and Azure Synapse](#)
- [Always Encrypted: Protect sensitive data and store encryption keys in the Windows certificate store](#)

## 5. Implement network isolation for data solutions, including Azure Synapse Analytics and Azure Cosmos DB

- [Isolation in the Azure Public Cloud | Microsoft Docs](#)
- [Frequently asked questions about Azure Synapse Link for Azure Cosmos DB | Microsoft Docs](#)
- [Configure private endpoints for Azure Cosmos DB analytical store. | Microsoft Docs](#)

## 3. Configure and manage Key Vault

### 1. Create and configure Key Vault

- [Quickstart - Create an Azure Key Vault with the Azure portal | Microsoft Docs](#)
- [Quickstart - Create an Azure Key Vault with the Azure portal | Microsoft Docs](#)

### 2. Configure access to Azure Key Vault

- [Provide Key Vault authentication with an access control policy](#)
- [Secure access to a key vault](#)
- [Tutorial: Use a Windows VM system-assigned managed identity to access Azure Key Vault](#)
- [Azure Key Vault security](#)
- [ARM Template to create Azure Key Vault and Key](#)

### 3. Manage secrets, certificates, and keys

- [Store and manage secrets by using Azure Key Vault - Learn | Microsoft Docs](#)
- [About keys - Azure Key Vault | Microsoft Docs](#)
- [Manage access and permissions to secrets, certificates, and keys to Key Vault](#)
- [Do you have an idea or a suggestion for Azure Key Vault based on your experience?](#)
- [Key and Secret Management in 'Azure'](#)
- [Tutorial: Use a managed identity to connect Key Vault to an Azure Web App with .NET](#)
- [Get started with Key Vault certificates](#)
- [About keys, secrets, and certificates](#)
- [Manage keys and secrets](#)

### 4. Configure key rotation

- [Set up Azure Key Vault with key rotation and auditing](#)

## 5. Configure backup and restore of Key Vault items

- [Azure Key Vault: Step-by-Step Backup and Restore Process](#)

## Conclusion

I hope you have found this guide valuable. Have an exam tip you'd like to see included in this document? Provide feedback through the LinkedIn Learning site or connect with me on Twitter at [@pzerger](#).