AZ-305: Microsoft Azure Solutions Architect Expert Exam Study Guide

May 5, 2022 by manish

☆☆☆☆☆ Rate this post

Do you know the AZ-305 Azure Solutions Architect Expert certification exam is one of the top 10 highest paying certifications? Experts estimate that the worldwide cloud service market will grow exponentially to $331 billion in revenue by 2022. In addition, Microsoft Azure has a significant market capitalization in cloud services. It can boost Professional career development by being an Azure Certified expert in technical skills, credibility, and compensation.

The topics covered in this blog are:

- AZ-305 Certification Overview
- Who is Azure Solutions Architect?

AZ-305 Certification Overview

AZ-305: Designing Microsoft Azure Infrastructure Solutions is for candidates with subject matter knowledge in developing cloud and hybrid solutions. It runs on Microsoft Azure, including computation, network, storage, monitoring, and security.

Among other responsibilities, this position entails collaborating with stakeholders and transforming business demands into designs for secure, scalable, and dependable Azure solutions. An Azure solutions architect expert collaborates with developers, administrators, and other roles engaged in the implementation of Azure solutions.

Azure Solutions Architect
Expert

The AZ-305: Designing Microsoft certified azure solutions architect expert exam, which will be released in November 2021, is a new expert-level exam for Solutions Architect. The AZ 305 exam will take the place of the AZ-303 (Azure Architect Technologies) and AZ-304 (Azure Architect Design) examinations, which will both be phased out on March 31, 2022.

For this AZ-305 exam, the students should be familiar with the Microsoft Cloud Adoption Framework and Microsoft Azure Well-Architected Framework for building and implementing Azure solutions architecture.

Who Is Azure Solutions Architect?

Azure Solutions Architects are experts in building cloud and hybrid solutions for Microsoft Azure, including compute, network, storage, monitoring, and security. In addition, the Solutions Architect is knowledgeable in IT operations, virtualization, identity management, disaster recovery, business continuity, data platforms, and governance.

In addition, the Microsoft Architect expert collaborates closely with Azure Developers, Azure Administrators, and cloud DBAs to convert business needs into safe, scalable Azure cloud solutions.
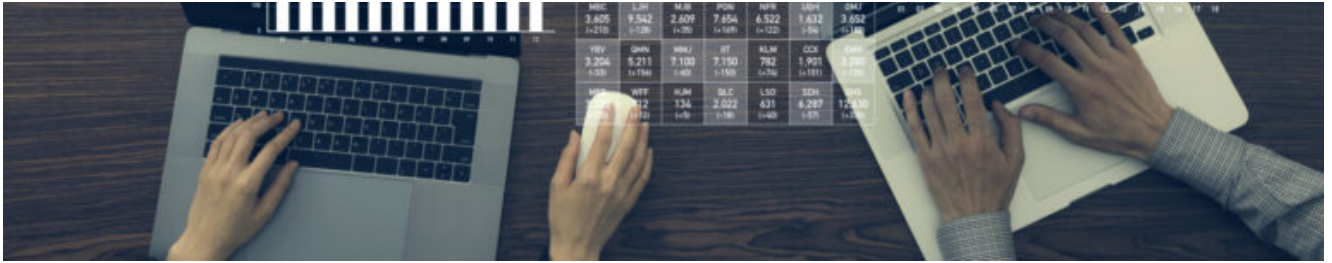
Who This Certification Is For?

Microsoft certified azure solutions architect expert certification is for those who are interested in becoming Azure cloud architects.

Azure Solutions Architects advise stakeholders and businesses on how to expand their Azure Solutions in terms of security, design, architecture, and dependability. They collaborate with developers and administrators to adapt and implement the Azure system's design and architecture solutions. If you're interested in such roles and responsibilities, you should look into becoming a Microsoft Certified: Azure solutions architect expert.

Benefits of AZ-305 Certification

1. The AZ-305 certification qualifies you as a qualified professional with an in-depth understanding of Azure Roles & Responsibilities.
2. It aids you in receiving a larger raise and attracting more attractive offers.
3. Updating your profile with this certificate will help you develop your career and increase your chances of being hired.
4. AZ 305 also allows you to deliver a high level of recognition within the company.
5. Microsoft tends to bloom, with a 19% market share and continual innovation, and so the demand for Microsoft certified azure solutions architect expert would skyrocket.

Also Check: ADF Interview Questions

AZ-305 Exam Details

Exam Name Designing Microsoft Azure Infrastructure Solutions: Exam AZ-305	**Exam Duration** 120 Minutes
Exam Type Multiple Choice Examination	**Number of Questions** 110 questions
Exam Fee $165	**Eligibility/Pre-Requisite** Advanced experience and knowledge of IT operations, including networking, virtualization, identity, security, business continuity, disaster recovery, data platforms, and governance.
Exam validity Lifetime	**Exam Languages** English

AZ-305 Exam Skills Measured

Design identity, governance, and monitoring solutions	**25-30%**
Design data storage solutions	**25-30%**
Design business continuity solutions	**10-15%**
Design infrastructure solutions	**25-30%**

How to Register for Azure AZ 305 Exam

You can register for the Azure Solutions Architect Certification (AZ-305 Exam) by going to the Official Microsoft Page.

Exam AZ-305: Designing Microsoft Azure Infrastructure Solutions

United States

$165 USD*

Price based on the country or region in which the exam is proctored.

This exam measures your ability to accomplish the following technical tasks: design identity, governance, and monitoring solutions; design data storage solutions; design business continuity solutions; and design infrastructure solutions.

Schedule exam >

Prerequisite for AZ-305 Certification

- IT operations experience and knowledge, such as networking, virtualization, identity, security, business continuity, disaster recovery, data platforms, and governance, are required for this test.
- They must be aware of how their actions in each area affect the overall solution.
- Students preparing for AZ-305 need to have prior knowledge of Azure Administration, Azure Development, and DevOps practices.

AZ-305 Study Guide

Design Identity, Governance, and Monitoring Solutions (25-30%)

Design a solution for logging and monitoring

- Design a log routing solution
  - Enhanced capabilities for routing logs and metrics
  - How to route platform logs using Diagnostic Settings with Azure Monitor
- Recommend an appropriate level of logging
  - How do I control the log level for Azure Diagnostic Logs?
  - Controlling The Logging Levels in Azure Functions
- Recommend monitoring tools for a solution
  - Azure Monitor overview

- Azure Monitoring Tools

Design authentication and authorization solutions

- Recommend a solution for securing resources with role-based access control
  - Secure your Azure resources with Azure RBAC
  - How to Secure your Azure Resources with Azure RBAC
- Recommend an identity management solution
  - Azure identity management security overview
  - Identity and access management (IAM)
  - Azure Identity Management and access control security best practices
- Recommend a solution for securing identities
  - Planning Microsoft Azure Identity and Security
  - Secure access to your applications by using Azure identity services

Design governance

- recommend an organizational and hierarchical structure for Azure resources
  - Organize your Azure resources effectively
  - What are Azure management groups?
  - Organize and manage multiple Azure subscriptions
- recommend a solution for enforcing and auditing compliance
  - Create and manage policies to enforce compliance
  - Improve your regulatory compliance

Design identities and access for applications

- Recommend solutions to allow applications to access Azure resources
  - Create an Azure AD app that accesses resources
  - Manage access to an application

- Recommend a solution that securely stores passwords and secrets
  - Set and retrieve a secret from Azure Key Vault using the Azure portal
  - Store credentials in Azure Key Vault
  - Azure Key Vault: A Secure Place to Store Passwords
- Recommend a solution for integrating applications into Azure Active Directory (Azure AD)
  - Integrating Azure Active Directory with applications
  - Five steps for integrating all your apps with Azure AD
  - Tutorials for integrating SaaS applications with Azure Active Directory
- Recommend a user consent solution for applications
  - Configure how users consent to applications
  - Understanding Azure AD application consent experiences
  - Manage consent to applications and evaluate consent requests

Design Data Storage Solutions (25-30%)

Design a data storage solution for relational data

- Recommend database service tier sizing
  - DTU-based purchasing model overview
  - Azure SQL Database – How to Choose the Right Service Tier
- Recommend a solution for database scalability
  - Dynamically scale database resources with minimal downtime
  - Azure SQL Database – scalability
  - Get high-performance scaling for your Azure database workloads with Hyperscale
  - Scale single database resources in Azure SQL Database
- Recommend a solution for encrypting data at rest, data in transmission, and data in use
  - Azure Data Encryption at rest
  - Security Control: Encrypt data in transit

Design data integration

- Recommend a solution for data integration
  - Integrate data with Azure Data Factory or Azure Synapse Pipeline
  - Data Integration with Microsoft Azure Data Factory
- Recommend a solution for data analysis

Recommend a data storage solution

- Recommend a solution for storing relational data
  - Relational database management systems
  - Work with relational data in Azure
  - Describe how to work with relational data on Azure
- Recommend a solution for storing semi-structured data
  - Classify your data
  - XML format in Azure Data Factory and Synapse Analytics pipelines
  - Index JSON blobs from Azure Storage using REST
- Recommend a solution for storing non-relational data
  - Explore fundamentals of Azure Cosmos DB
  - Non-relational data and NoSQL
  - Microsoft Azure Data Fundamentals: Explore non-relational data in Azure

Design a data storage solution for non-relational data

- Recommend access control solutions to data storage
  - Access control lists (ACLs) in Azure Data Lake Storage Gen2
  - Access control model in Azure Data Lake Storage Gen2
  - Authorize access to data in Azure Storage
- Recommend a data storage solution to balance features, performance, and cost
  - Storage account overview
  - Performance and scalability checklist for Blob storage

- Azure premium storage: design for high performance
- Plan and manage costs for Azure Blob Storage
- Design a data solution for protection and durability
  - Data protection
  - Azure data security and encryption best practices
  - Overview of the reliability pillar

Design Business Continuity Solutions (10-15%)

Design a solution for backup and disaster recovery

- Recommend a recovery solution for Azure, hybrid, and on-premises workloads that meets recovery objectives (Recovery Time Objective [RTO], Recovery Level Objective [RLO], Recovery Point Objective [RPO])
  - Disaster Recovery solution for Azure IaaS applications
  - Azure Disaster Recovery: Azure-to-Azure and Physical-to-Azure
  - Reduce disaster recovery time with Azure Site Recovery
- Understand the recovery solutions for containers
  - az backup container
  - Get-AzRecoveryServicesBackupContainer
- Recommend a backup and recovery solution for compute
  - Backup & restore with Azure Backup Instant Restore capability
  - Enable backup when you create an Azure VM
  - Back up an Azure VM from the VM settings
- Recommend a backup and recovery solution for databases
  - Back up multiple SQL Server VMs from the Recovery Services vault
  - Back up SQL Server always on availability groups
  - Backup and restore your Azure SQL database
- Recommend a backup and recovery solution for unstructured data
  - Overview of operational backup for Azure Blobs
  - How to backup Azure Blob storage accounts
  - Backup & replication for Apache HBase

Design for high availability

- Identify the availability requirements of Azure resources
  - Availability options for Azure Virtual Machines
  - Azure services that support availability zones
- Recommend a high availability solution for compute
  - Highly available multi-region web application
  - Availability options for Azure Virtual Machines
- Recommend a high availability solution for non-relational data storage
  - Achieve high availability with Cosmos DB
- Recommend a high availability solution for relational data storage
  - High availability for Azure SQL Database and SQL Managed Instance
  - High availability in Azure Database for MySQL

Design Infrastructure Solutions (25-30%)

Design a compute solution

- Recommend a virtual machine-based compute solution
  - Microsoft Azure App Service, Cloud Services, or VMs?
  - Azure Virtual Machine or Azure App Service. Which one should you choose?
  - Choose an Azure compute service
- Recommend an appropriately sized compute solution based on workload requirements
  - Virtual machine sizing guidelines
  - How to choose an Azure Virtual Machine
- Recommend a container-based compute solution
  - Choosing Azure compute platforms for container-based applications
- Recommend a serverless-based compute solution
  - Choose the best Azure serverless technology for your business

- Azure Essentials: Serverless compute options in Azure

Design an application architecture

- Recommend a caching solution for applications
  - Caching guidance
  - About Azure Cache for Redis
- Recommend a messaging architecture
  - Asynchronous messaging options
  - Messaging patterns
  - Designing a Microsoft Azure Messaging Architecture
- Recommend an event-driven architecture
  - Event-driven architecture style
  - Architecture patterns for event-driven applications using Azure Functions
  - Why you should consider an event-driven architecture
- Recommend an automated deployment solution for your applications
  - Automate Node.js deployments with Azure Pipelines
  - Automating Deployments from Azure Repos with Octopus Deploy
  - Automated deployment to Azure Web App using Visual Studio Team Service
  - What is Azure Automation?
- Recommend an application configuration management solution
  - Simplify the management of application configurations with App Configuration
  - Configure Azure services for use with Configuration Manager
- Recommend a solution for API integration
  - Architect API integration in Azure
  - Basic enterprise integration on Azure
  - An Overview of Azure Integration Services

Design migrations

- Evaluate a migration solution that leverages the Cloud Adoption Framework for Azure
  - The Microsoft Cloud Adoption Framework for Azure
  - Cloud migration in the Cloud Adoption Framework
  - Assess workloads and refine plans
- Assess and interpret on-premises servers, data, and applications for migration
  - Assess physical servers for migration to Azure
  - Assessment overview (migrate to Azure VMs)
  - Assess and migrate web apps to Azure with Azure Migrate
  - Azure Migrate: Discover, Assess, Migrate & A to Z Demo
  - Migrating to SQL: Discover and Assess SQL Server Data Estate Migrating to Azure SQL
- Recommend a solution for migrating applications and virtual machines
  - Migrate an on-premises web application to Azure App Service
  - Overview of application migration examples for Azure
  - Migrate VMware VMs to Azure (agentless)
  - Migrate Hyper-V VMs to Azure
  - Migrate on-premises machines to Azure
- Recommend a solution for migrating databases
  - What is Azure Database Migration Service?
  - How to migrate SQL Server databases to Azure
- Recommend a solution for migrating unstructured data
  - Comparison matrix
  - Migration of unstructured data

Design network solutions

- Recommend a network architecture solution based on workload requirements
  - Azure network architecture
  - Architect network infrastructure in Azure
  - Azure Networking architecture documentation

- Recommend a connectivity solution that connects Azure resources to the internet
  - Provide Internet Access for Azure Resources Virtual Machines
- Recommend a connectivity solution that connects Azure resources to on-premises networks
  - Connect an on-premises network to a Microsoft Azure virtual network
  - Connect an on-premises network to Azure
  - Extend an on-premises network using VPN
- Optimize network performance for applications
  - Optimize network throughput for Azure virtual machines
  - Virtual machine network bandwidth
- Recommend a solution to optimize network security
  - Azure Network Security
- Recommend a load balancing and routing solution
  - Load-balancing options
  - A guide to help you choose the correct option
  - Picking the right Azure Load Balancing Solution
  - Virtual network traffic routing

Conclusion

AZ-305 is a new test with a new number, indicating that it has changed significantly and that more than a third of the exam content has changed. Microsoft certified azure solutions architect expert is a way to upskill yourself and excel in your career.

Related/References

- AZ-600: Azure Stack Hub Operator Associate Exam Study Guide
- AZ-700: Azure Network Engineer Associate Exam Study Guide
- DP-203: Microsoft Azure Data Engineer Associate Exam Study Guide
- DP-100: Microsoft Azure Data Scientist Associate Exam Study Guide

- [PL-300: Microsoft Power BI Data Analyst Associate Exam Study Guide](#)
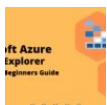
Leave a Comment

Name *

Email *

Save my name, email, and website in this browser for the next time I comment.

Post Comment

Recent Posts

Azure Storage Explorer: Download, Install, and Setup Overview

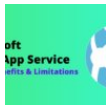What are Azure Logic Apps: Components, Advantages and

How it Works

Microsoft Azure Application Insights: A Complete Beginners Guide

Microsoft Azure Service Bus: A Complete Beginners Guide

Azure App Service: Types, Benefits and Limitations