

Overview of Microsoft Role-Based Certification in 2020

AZURE IN THE ATL

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Agenda

- ▶ Why Certification?
- ▶ Microsoft Role-Based Certification
- ▶ Azure Roles and Certifications
- ▶ Understanding Test Scope
- ▶ Learning Resources
- ▶ Demos
- ▶ Q and A

About Me

- ▶ **Eric Flamm**, Flamm Consulting Inc.
- ▶ BI / Data Engineering Consultant since 2000
- ▶ Corporate experience in Engineering, Finance, and IT
- ▶ Focus on Microsoft Data Platform
- ▶ Active volunteer with local user groups and Boy Scouts
- ▶ Past presentations include SQL Saturday (Atlanta, Chicago, Virginia Beach), Global Azure Boot Camp, Azure Datafest ATL, and local user groups
- ▶ Disclaimer: *I am NOT a Microsoft employee and do NOT have an NDA for training/certification. All content is publicly available and subject to change without me knowing anything about it.*

Why Certification?



*Pearson VUE 2017
Value of IT Certification
Survey*

- Better Performance
- Better Reviews
- Increase Efficiency
- Promotability

Microsoft Role-Based Certification

- ▶ Focus on skills and concepts needed for specific job roles
- ▶ Training driven by working professionals with role-specific experience
- ▶ 4 “Solution Spaces” to group related roles:
 - ▶ Apps and Infrastructure
 - ▶ Data and AI
 - ▶ Modern Workplace (Microsoft 365)
 - ▶ Business Applications (Power Platform and Dynamics)
- ▶ 4 Fundamentals Exams aligned with Solution Spaces:
 - ▶ AZ-900 (Azure Fundamentals) – Apps and Infrastructure AND Data and AI
 - ▶ MS-900 (MS 365 Fundamentals) – Modern Workplace
 - ▶ PL-900 (Power Platform Fund) and MB-900 (Dynamics Fund) – Bus Applications

Microsoft Role-Based Certification

- ▶ In addition to Fundamentals exams, there are 3 exam levels:
 - ▶ Associate – leading to MS Associate certification
 - ▶ Expert – leading to MS Expert certification
 - ▶ Specialty – standalone certifications for niche area (e.g., SAP Admin)
- ▶ Azure is the underlying platform for Apps and Infrastructure and Data and AI Solutions

Azure Roles and Certifications

Azure certifications

**exam in beta*

Role-based

Technical skills required to perform a job



Apps and Infra



Data and AI

Expert

Azure Solutions Architect

Azure DevOps Engineer

Associate

Azure Administrator

Azure Developer

Azure Security Engineer

Azure Data Scientist

Azure AI Engineer

Azure Data Engineer

Fundamentals

Foundational understanding of technology

Azure Fundamentals

Specialty

Deep technical skills managing industry solutions



Azure for SAP Workloads*

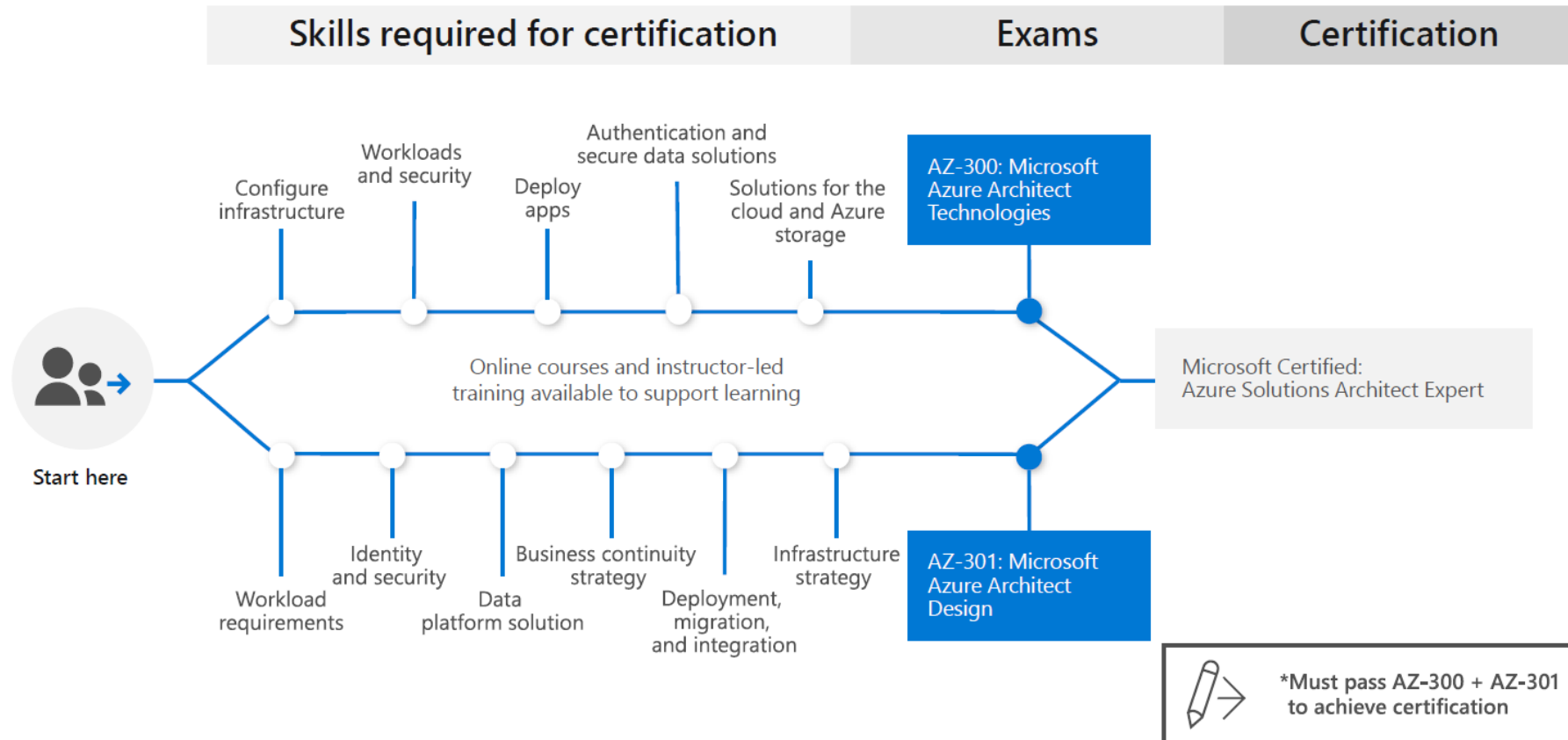


Azure IoT Developer*

Understanding Test Scope











- For each certification, there is a “learning path”, which highlights the broad concept areas covered in each exam required for the certification

Learning path for Azure Solutions Architect Expert



Each Test has Learn Modules and a Detailed Skills List

Learning paths to gain the skills needed to become certified

-  **Architect great solutions in Azure**
Learning Path • 5 Modules
[Start >](#)
-  **Architect network infrastructure in Azure**
Learning Path • 12 Modules
-  **Architect storage infrastructure in Azure**
Learning Path • 7 Modules
-  **Architect compute infrastructure in Azure**
Learning Path • 9 Modules
-  **Architect infrastructure operations in Azure**
Learning Path • 5 Modules
-  **Architect a data platform in Azure**
Learning Path • 9 Modules
-  **Architect message brokering and serverless applications in Azure**
Learning Path • 6 Modules
-  **Architect modern applications in Azure**
Learning Path • 8 Modules
-  **Architect API integration in Azure**
Learning Path • 4 Modules
-  **Architect migration, business continuity, and disaster recovery in Azure**
Learning Path • 9 Modules

Exam AZ-300: Microsoft Azure Architect Technologies – Skills Measured

Deploy and configure infrastructure (40-45%)

Analyze resource utilization and consumption

- configure diagnostic settings on resources
- create baseline for resources
- create and test alerts
- analyze alerts across subscription
- analyze metrics across subscription
- create action groups
- monitor for unused resources
- monitor spend
- report on spend
- utilize Log Search query functions
- view alerts in Azure Monitor logs
- visualize diagnostics data using Azure Monitor Workbooks

Create and configure storage accounts

- configure network access to the storage account
- create and configure storage account
- generate shared access signature

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There are also Instructor-led Courses

Course details for Azure Solutions Architect Expert

9 Instructor-led training courses aligned to the two exams

Exam titles	Course title / training titles	Course ID	Course duration
Microsoft Azure Solutions Architect – Technologies EXAM AZ-300	Deploying and Configuring Infrastructure	AZ-300T01	1 Day
	Implementing Workloads and Security	AZ-300T02	1 Day
	Understanding Cloud Architect Technology Solutions	AZ-300T03	1 Day
	Creating and Deploying Apps	AZ-300T04	1 Day
	Developing for the Cloud	AZ-300T06	1 Day
Microsoft Azure Solutions Architect – Design EXAM AZ-301	Designing for Identity and Security	AZ-301T01	1 Day
	Designing a Data Platform Solution	AZ-301T02	1 Day
	Designing for Deployment, Migration, and Integration	AZ-301T03	1 Day
	Designing an Infrastructure Strategy	AZ-301T04	1 Day

Learning Resources

- ▶ Free

- ▶ Microsoft Learn (*replaced and expanded Microsoft Virtual Academy*)
- ▶ Pluralsight (selected courses) – includes skill assessments and Role IQs (aggregating scores for related skills)

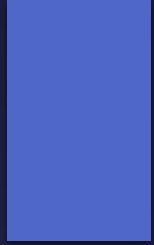
- ▶ Not Free

- ▶ Microsoft Instructor-led Courses (taught by MS Learning Partners)
- ▶ Official Practice Exams from MeasureUp
 - ▶ Available for many (but not all) role-based certification tests

Demos

- ▶ Microsoft Learn - <https://docs.microsoft.com/en-us/learn/paths/architect-great-solutions-in-azure/>
- ▶ Pluralsight - <https://app.pluralsight.com/library/>
- ▶ Practice Tests - <https://www.measureup.com/>

Q and A



Links

[MS Learn - Certification Paths](#)

(docs.microsoft.com/en-us/learn/certifications/)

[FREE Pluralsight Resources for Azure](#)

(www.pluralsight.com/partners/microsoft/azure)

[MS Guide to Training and Certification \(85 pages\)](#)

(<https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RWtQJJ>)

[Azure Fundamentals \(AZ-900\) Learning Resources](#)

(aka.ms/AzureFundamentalsLearning)

[Role-based Certifications Poster](#)

(aka.ms/TrainCertPoster)

[MS Instructor-led Course Catalog](#)

(<https://docs.microsoft.com/en-us/learn/certifications/courses/browse/>)

[Azure Docs](#)

Docs



Microsoft
Training and
Certifications

Choose your path to success.

Microsoft Certifications are the industry's premier credentials for professional technologies. Whether you're new to the field or a seasoned professional, our training and certification will help you keep pace with today's business requirements.

Learn more about Microsoft training and certifications: Microsoft.com/Certification.

Start by choosing your solution area:

Apps and Infrastructure

Data and AI

Modern Workplace

Business Applications

Stand out with Microsoft's training and certification

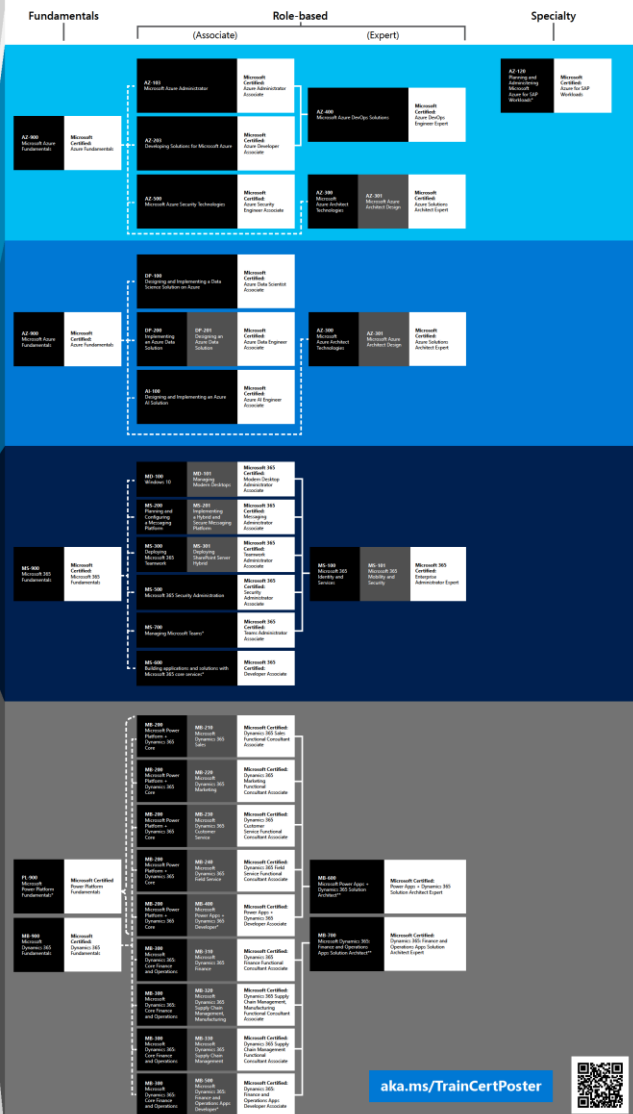
- Expanded training and certification beyond individual technologies puts the focus on the skills and concepts needed for specific job roles.
- Hands-on training inspired by working professionals teaches you how to apply learnings in today's demanding IT environment.
- Certification validating your next-level skills demonstrates the value you provide to your team and organization.

Define your learning approach

- Fundamentals certification validates your foundational understanding of Microsoft technologies.
- Role-based certification validates your technical skills required to perform industry job-roles on Microsoft platforms and technologies.
- Specialty certification validates your deep technical skills and ability managing industry solutions, including 3rd party solutions, on or with Microsoft platforms.

Key
 --- Optional path
 — Required path, chose one
 * Exam in beta
 ** Exam in beta Dec. 2019

Publication Date: October 2019



Microsoft Certified Azure Fundamentals – Skills Measured

This document contains the skills measured on the exams associated with this certification. It does not include any upcoming or recent changes that have been made to those skills. For more information about upcoming or recent changes, see the associated exam details page(s).

Understand cloud concepts

Describe the benefits and considerations of using cloud services

- understand terms such as High Availability, Scalability, Elasticity, Agility, Fault Tolerance, and Disaster Recovery
- understand the principles of economies of scale
- understand the differences between Capital Expenditure (CapEx) and Operational Expenditure (OpEx)
- understand the consumption-based model

Describe the differences between Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS) and Software-as-a-Service (SaaS)

- describe Infrastructure-as-a-Service (IaaS)
- describe Platform-as-a-Service (PaaS)
- describe Software-as-a-Service (SaaS)
- compare and contrast the three different service types

Describe the differences between Public, Private and Hybrid cloud models

- describe Public cloud
- describe Private cloud
- describe Hybrid cloud
- compare and contrast the three different cloud models

Understand core Azure services

Understand the core Azure architectural components

- describe Regions
- describe Availability Zones
- describe Resource Groups
- describe Azure Resource manager
- describe the benefits and usage of core Azure architectural components



Microsoft training and certifications



Exam DP-200: Implementing an Azure Data Solution – Skills Measured

Implement data storage solutions (40-45%)

Implement non-relational data stores

- implement a solution that uses Cosmos DB, Data Lake Storage Gen2, or Blob storage
- implement data distribution and partitions
- implement a consistency model in Cosmos DB
- provision a non-relational data store
- provide access to data to meet security requirements
- implement for high availability, disaster recovery, and global distribution

Implement relational data stores

- configure elastic pools
- configure geo-replication
- provide access to data to meet security requirements
- implement for high availability, disaster recovery, and global distribution
- implement data distribution and partitions for Azure Synapse Analytics
- implement PolyBase

Manage data security

- implement data masking
- encrypt data at rest and in motion

Manage and develop data processing (25-30%)

Develop batch processing solutions

- develop batch processing solutions by using Data Factory and Azure Databricks
- ingest data by using PolyBase
- implement the integration runtime for Data Factory
- create linked services and datasets
- create pipelines and activities
- create and schedule triggers
- implement Azure Databricks clusters, notebooks, jobs, and autoscaling
- ingest data into Azure Databricks

Develop streaming solutions

Contact Info

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