Elkhan Yusubov

Speaker | Author | Architect
Founder at #CloudMarathoner

@ElYusubov

Elkhan is a Director of Cloud & Infrastructure, and an Architect Manager, Microsoft Azure MVP and 17+ MCT with experience in cloud solutions, enterprise healthcare systems and healthcare data, and API standards (HL7 FHIR, EDI X12).
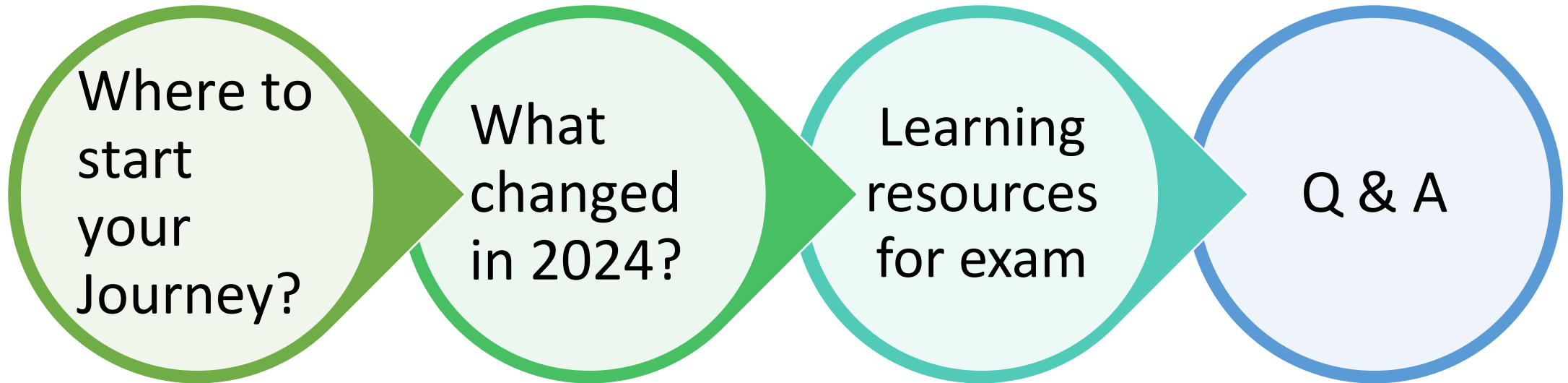
He is an active Microsoft Tech Community Contributor, Cloud Lunch and Learn Co-organizer, Learning expert and MCT Regional Lead, and as well as a LinkedIn instructor with interests in Architecture, DevOps & Security.

He is a frequent speaker at tech meetups and has volunteered for Give Camps, Azure Data Fest, SQL Saturdays and Microsoft community events, like this one.

And please, checkout his blog posts at Cloud Marathoner site below.

https://theCloudMarathoner.com 🌥️ 🏃 🏃‍♀️

What we will cover

Where to start your Journey?

What changed in 2024?

Learning resources for exam

Q & A

What we do; where we do it

☐ **IT Engineering Services**

Agile Transformation
Cloud Adoption &
    Infrastructure Optimization
Cybersecurity
Data Engineering & Analytics

☐ **Customer Experience**

Technology Adoption
Release Management
Communications Management
Change Management

☐ **Health IT**

EHR Strategy & Management
HIPAA Compliance
Healthcare System Integration & Testing
Patient Experience Enhancement

Defense Health Agency

ICE

Intel Community

USAF

US TRANSCOM

DISA
Defense Information Systems Agency

General Services Administration

Education

IRS
Treasury

United States® Census Bureau

Company Info

- **Established:** 1999
- **Legal Structure:** LLC
- **Headquarters:** Bethesda, MD
- **SDVOSB Joint Ventures**
- **CMMI-DEV & SVC Level 3 v2.0**
- **ISO 9001; ISO27001; ISO20000**

Prime Vehicles/BPAs:

- GSA MAS HACS SIN
- GSA MAS Cloud SIN
- GSA MAS IT Svcs SIN
- COBRA OTA
- CIO-SP3 Small Business
- 8(a) STARS III via MPJV
- GSA MAS HACS SB & Cloud SIN SB via MPJV

Silver
Microsoft Partner
Silver Datacenter
Silver Data Analytics
Silver Data Platform
Silver App Dev
Silver App Integration

aws partner network
Select
Consulting Partner

bsi

CMMISVC/3
CMMIDEV/3

TOP WORK PLACES 2023-2024

Top Cloud Vendor 2017-2019 GovWin Federal Market

#1 Cloud Government Support Services PROVIDER 2016-21 Bloomberg Government

T-REX Cares | T-Rex has donated **over $3.5M** in support of underserved youth, veterans, and local organizations.

T-REX

Certification journey

Your path to Azure Solutions Architect Expert

Microsoft training

- Self-paced online learning (on Microsoft Learn)
- AZ-305T00: Designing Microsoft Azure Infrastructure Solutions

AZ-305: Designing Microsoft Azure Infrastructure Solutions Exam Prep
You are here – welcome!

AZ-305: Designing Microsoft Azure Infrastructure Solutions Exam

CERTIFIED

Microsoft Certified: Azure Solutions Architect Expert

CERTIFIED

Microsoft Certified: Azure Administrator Associate (Prerequisite)

Work experience

- Experience in Azure administration
- Advanced experience and knowledge of IT operations
- Experience with Azure development and DevOps

Self-study resources

- Hands-on Labs
- Microsoft Docs
- Azure Architecture Center
- Microsoft Official Practice Test
- Focus placed on skills identified during this session

What we have in AZ-305 exam?

Group 1 — 26% — Design identity, governance, and monitoring solutions

Group 2 — 24% — Design data storage solutions

Group 3 — 17% — Design business continuity solutions

Group 4 — 33% — Design infrastructure solutions
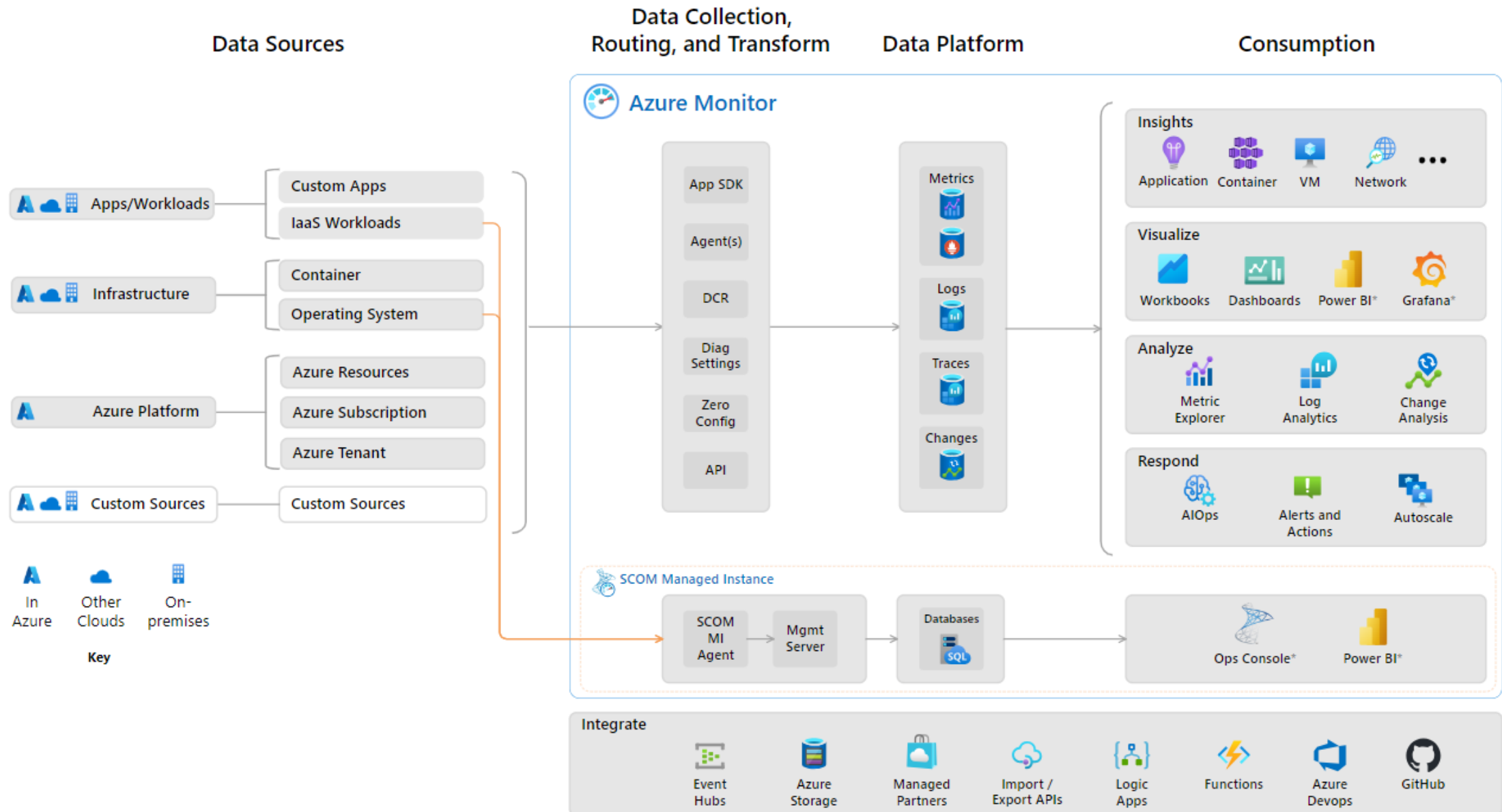
Exam domain objective Group 1

AZ-305 exam – Skills Measured 1

Design identity, governance, and monitoring solutions

1.1 Design a solution for logging and monitoring

1.2 Design authentication and authorization solutions

1.3 Design governance

Closer look at Monitoring exam domain objective

Applied Skills

Filter

Clear all

Products

Find a product

- ∨ ☐ .NET
- ∨ ☐ Azure
  - ☐ Microsoft Copilot
  - ∨ ☐ Microsoft Defender
  - ∨ ☐ Microsoft Entra
  - ☐ Microsoft Fabric
  - ☐ Microsoft Graph
  - ∨ ☐ Microsoft Power Platform
  - ☐ Microsoft Teams

Roles

- ☐ Administrator
- ☐ AI Engineer
- ☐ App Maker
- ☐ Data Analyst
- ☐ Data Engineer

Search [Search]

Applied Skills ✕

27 results   Sort by: **Alphabetical (A-Z)** ∨

APPLIED SKILLS

Administer Active Directory Domain Services

Windows • Administrator • Intermediate

⊕ Add

APPLIED SKILLS

Build a natural language processing solution with Azure AI Language

Azure • AI Engineer • Intermediate

⊕ Add

APPLIED SKILLS

Build an Azure AI Vision solution

Azure • Developer • Intermediate

⊕ Add

APPLIED SKILLS

Build collaborative apps for Microsoft Teams

Microsoft Teams • Developer • Intermediate

⊕ Add

APPLIED SKILLS

Configure SIEM security operations using Microsoft Sentinel

Azure • Security Engineer • Intermediate

⊕ Add

APPLIED SKILLS

Configure secure access to your workloads using Azure networking

Azure • Administrator • Intermediate

⊕ Add

APPLIED SKILLS

Create an intelligent document processing solution with Azure AI Document Intelligence

Azure • Developer • Intermediate

⊕ Add

APPLIED SKILLS

Create and manage automated processes by using Power Automate

Microsoft Power Platform • Administrator • Intermediate

⊕ Add

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Exam domain objective Group 2

AZ-305 exam – Skills Measured 2
Design Data Storage Solutions

2.1 Design a data storage solution for relational data

2.2 Design data storage solutions for semi-structured and unstructured data
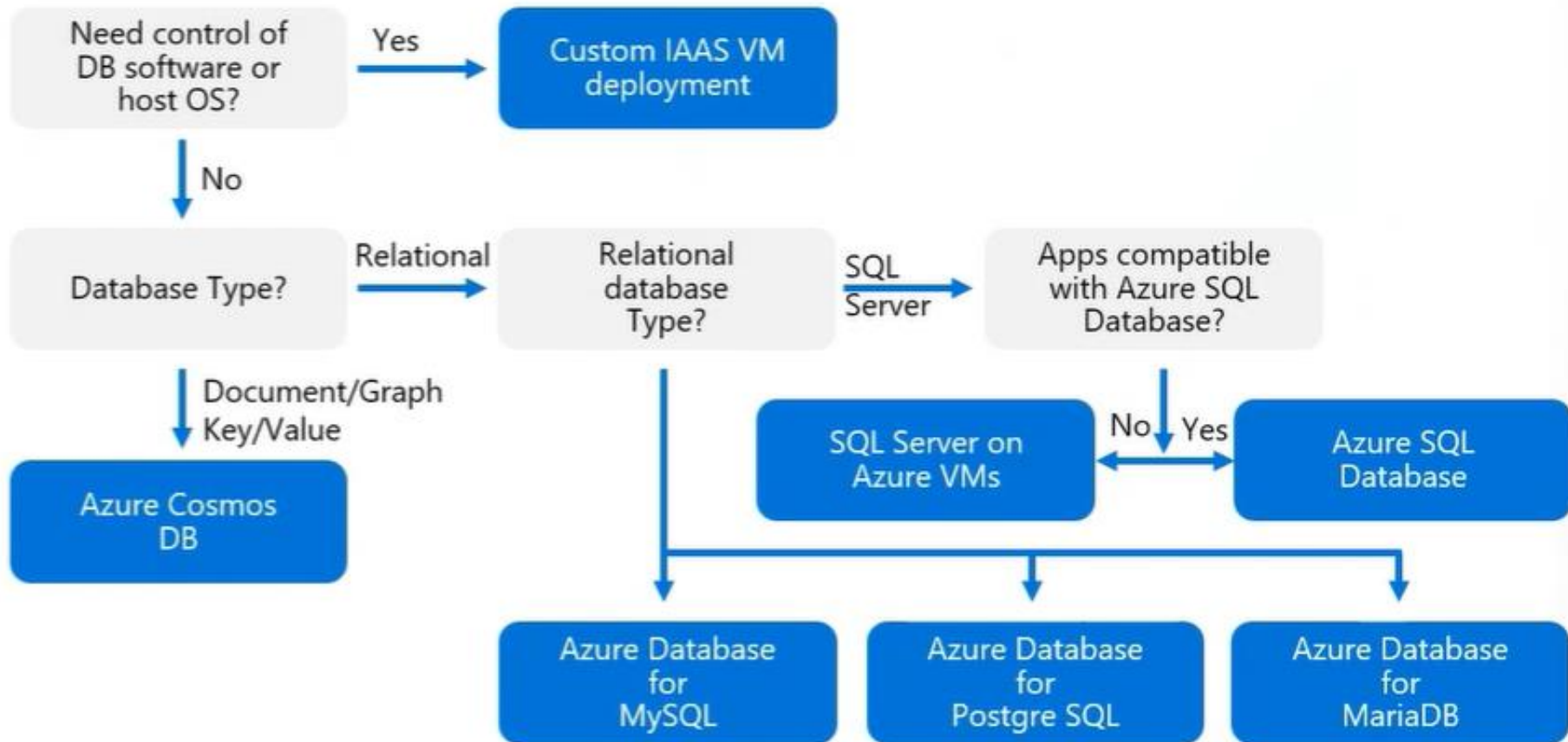
2.3 Design data integration

Closer look at storage exam domain objective

To design Azure storage, you first must determine what type of data you have.

Relational data	Relational or **structured data** is stored in a relational format and has a shared schema. It is often stored in a database table with rows, columns, and keys.

Structured

Non-relational data	Non-relational data includes: • **Semi-structured data** that is less organized than structured data and contains tags that clarify how it is organized. • **Unstructured data** is the least organized type of data and is stored in a non-relational format.

Semi-structured

XML JSON YAML

Unstructured

101010 101010
010101 010101
101010 101010

Choose from the relational data products

Need control of DB software or host OS? — Yes → Custom IAAS VM deployment

No ↓

Database Type? — Relational → Relational database Type? — SQL Server → Apps compatible with Azure SQL Database?

Database Type? — Document/Graph Key/Value ↓ → Azure Cosmos DB

Apps compatible with Azure SQL Database? — No → SQL Server on Azure VMs

Apps compatible with Azure SQL Database? — Yes → Azure SQL Database

Relational database Type? ↓ → Azure Database for MySQL

Azure Database for Postgre SQL

Azure Database for MariaDB

Exam domain objective Group 3

AZ-305 exam – Skills Measured 3
Design Business Continuity Solutions

3.1 Design a solution for backup and disaster recovery

3.2 Design for high availability

Closer look at disaster recovery methods

Azure Backup	Azure Site Recovery	VM Snapshot	MABS

|	
You need to back up on-premises machines and workloads.	You need to back up your managed disks at any point in time.
You have Azure VMs running production workloads.	You need a read-only full copy of a managed disk.
You need application-consistent backups for Linux virtual machines.	You need to cover disaster scenarios like an entire regional outage.

Exam domain objective Group 4

AZ-305 exam – Skills Measured 4
Design infrastructure solutions

4.1 Design a compute solution

4.2 Design an application architecture

4.3 Design migrations

4.4 Design network solutions

Closer look at choosing compute services
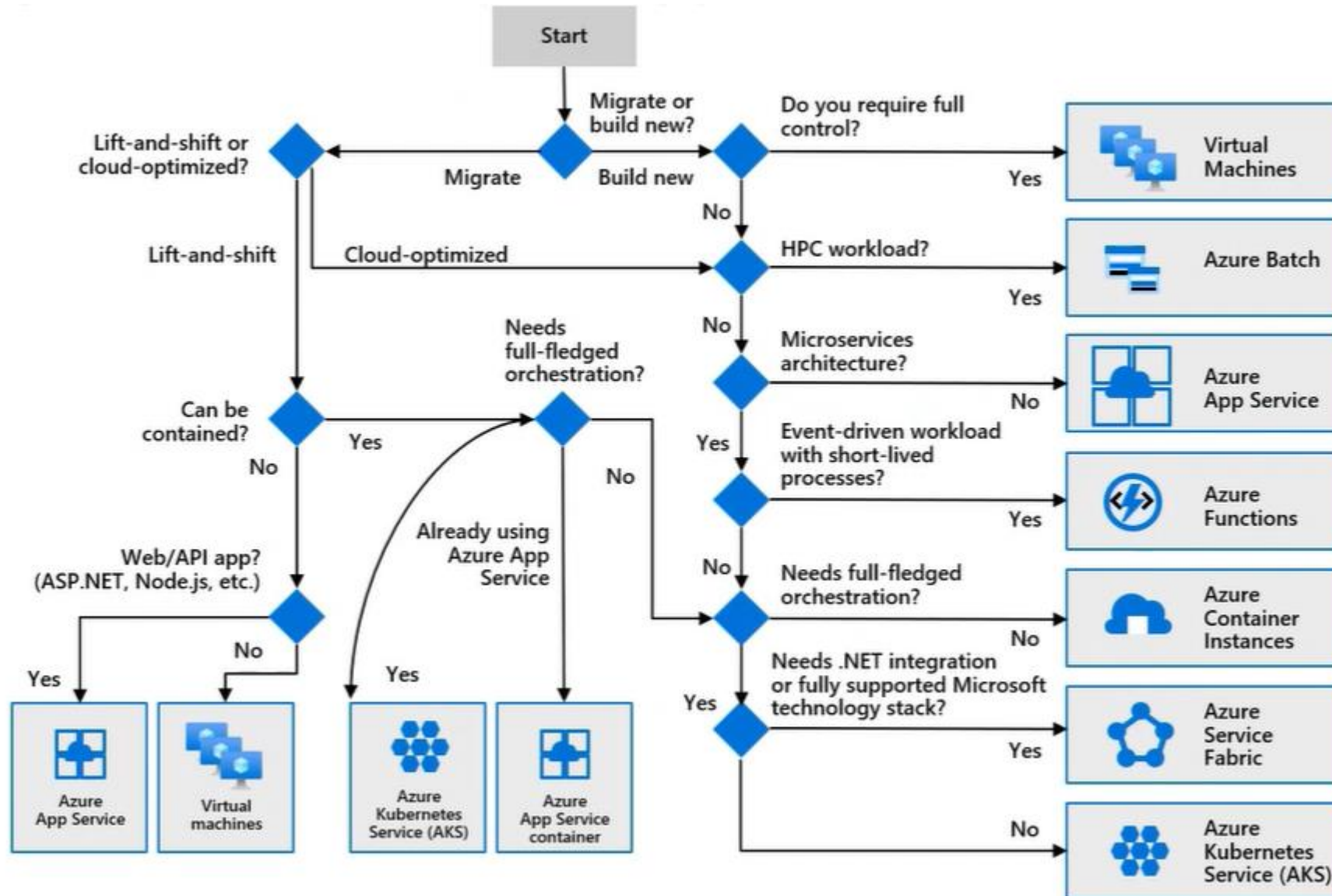
Major changes to AZ-305 exam after October 18th

- Design authentication and authorization solutions

- Design for High Availability

- ~~Design Identities and Access for Applications~~ (removed)

- ~~Recommend a Data Storage Solution~~ (removed)

Learning resources for AZ-305 exam

- Microsoft Learn modules

- Cloud Marathoner – Study Guide

- Thomas Maurer – Study Guide

- Official practice tests

- John Savill's Study Cram

- Labs and exercises

- Azure Architect center

- Microsoft Exam emulator

- Free Practice Assessment

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Case Studies – Design an app architecture

- Where should the images be stored?

- How will you ensure that all images are scanned even when uploads are outpacing scanning?

- Once images are approved and the catalog database is updated, how will the customer be notified?
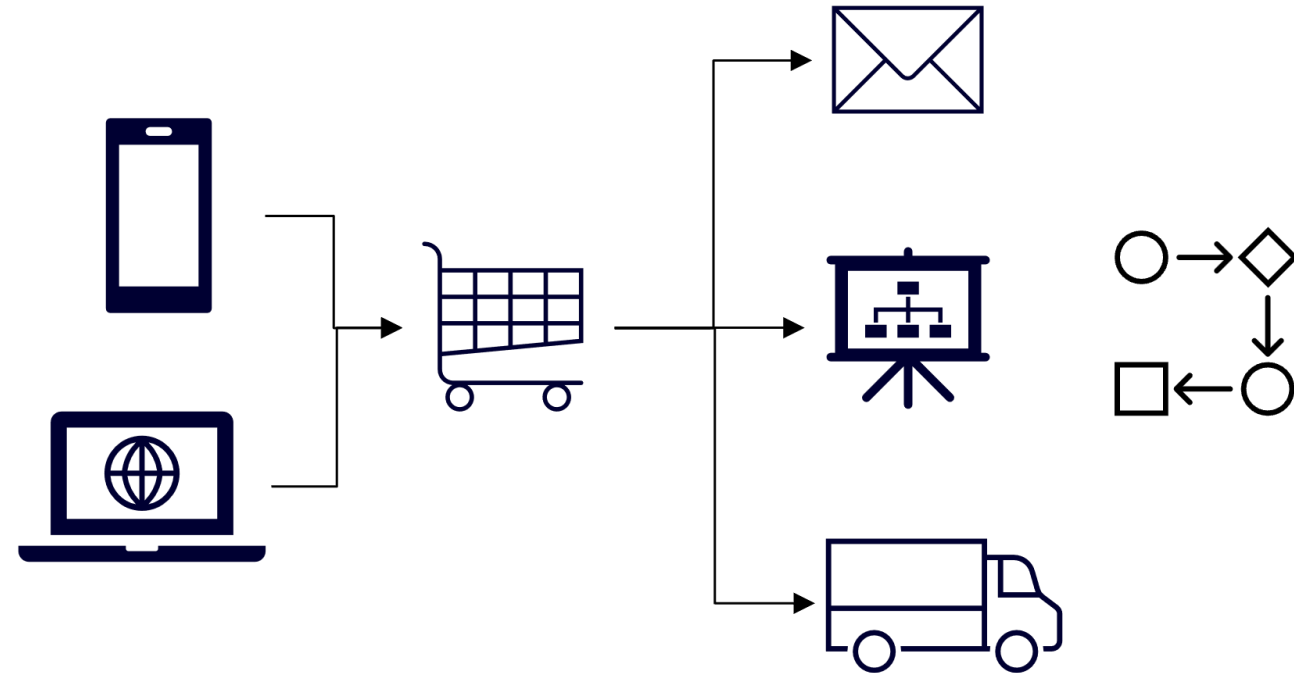
Azure Solutions Architect Expert (AZ-305) Cert Prep:
Design Infrastructure Solutions🎥
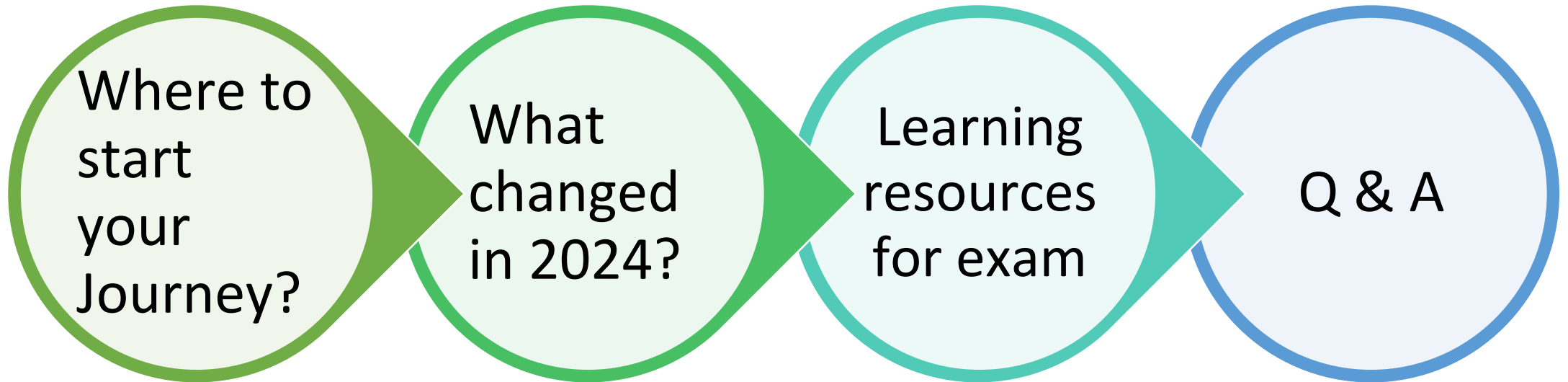
Azure always free resources

- Azure free subscription

- Always free 40+ services

What we covered

Where to start your Journey? → What changed in 2024? → Learning resources for exam → Q & A

What is next?

#CloudMarathoner 's Study Guide

Microsoft Lean AZ-305 modules

AWESOME Azure Architect - GitHub

LinkedIn AZ-305 Cert Prep:
Design Infrastructure Solutions

Thank you !

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Speaker | Author | Cloud Architect
Founder at #cloudmarathoner

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