GOL Learning Session

07/09/2022

Azure Cloud Security

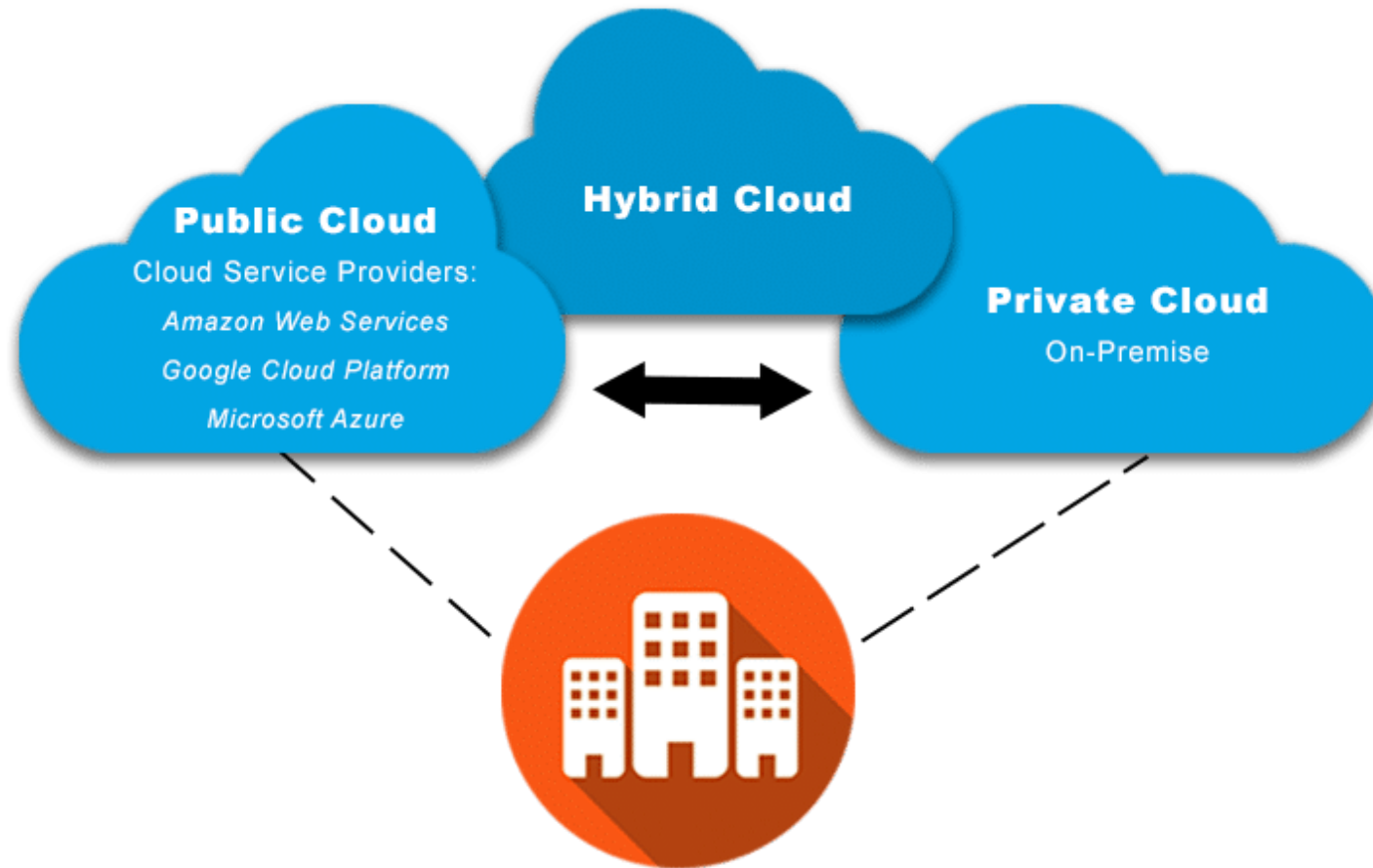# Who IAM
Eve Kilel
Program Manager
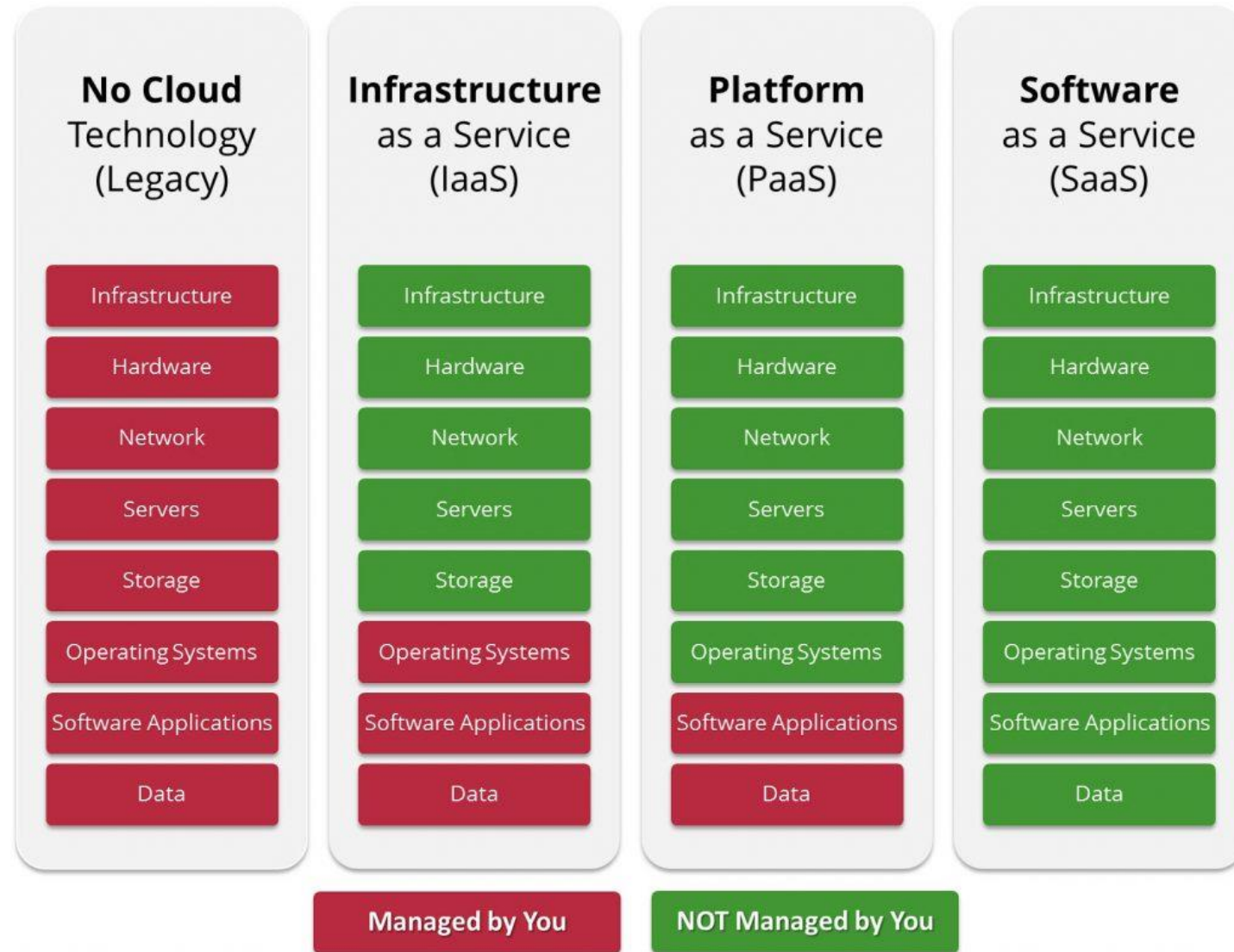## Cloud Security

What is Cloud Computing?

This is the delivery of computing services—including servers, storage, databases, networking, software, analytics, and intelligence—over the Internet ("the cloud") to offer faster innovation, flexible resources, and economies of scale.

Types of Cloud Computing

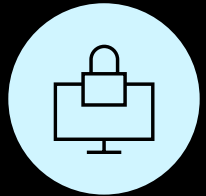# **Cloud Platform** Shared Responsibility Model
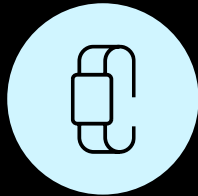
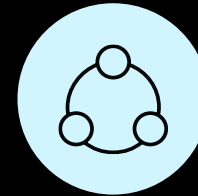# Benefits of Cloud Computing
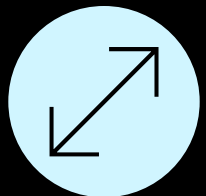
Cost

Global Scale
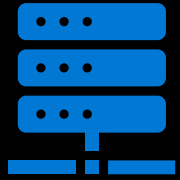
Performance

Security

Speed

Productivity

Relaibility

Types of cloud services

Infrastructure as a service (IaaS)

Platform as a service (PaaS)

Serverless computing

Software as a service (SaaS)

Uses of cloud computing

Create cloud-native applications

Test and build applications

Store, back up, and recover data

Stream audio and video

Analyze data

Embed intelligence

Deliver software on demand

Services on Azure

Platform Services

Security and Management
- Portal
- Active Directory
- Multi-Factor Authentication
- Automation
- Key Vault
- Store/ Marketplace
- VM Image Gallery and VM Depot

Compute
- Cloud Services
- Service Fabric
- Batch
- Remote App

Web and mobile
- Web Apps
- API Apps
- API Management
- Mobile Apps
- Logic Apps
- Notification Hubs

Developer services
- Visual Studio
- Azure SDK
- Team Project
- Application Insights

Hybrid Operations
- Azure AD Connect Health
- AD Privileged Identity Management
- Backup
- Operational Insights
- Import/Export
- Site Recovery
- StorSimple

Integration
- Storage Queues
- BizTalk Services
- Hybrid Connections
- Service Bus

Media and CDN
- Media Services
- Content Delivery Network (CDN)

Analytics and IoT
- HDInsight
- Machine Learning
- Data Factory
- Event Hubs
- Stream Analytics
- Mobile Engagement

Data
- SQL Database
- SQL Data Warehouse
- Redis Cache
- Search
- DocumentDB
- Tables

Infrastructure Services

Compute
- Virtual Machine
- Containers

Storage
- BLOB Storage
- Azure Files
- Premium Storage

Networking
- Virtual Network
- Load Balancer
- DNS
- Express Route
- Traffic Manager
- VPN Gateway
- Application Gateway

Datacenter Infrastructure (24 regions, 19 online)

Getting Started: Azure for Students Account

All you need is your university email to sign up
Go to: https://azure.microsoft.com/en-us/free/students/

Microsoft Intelligent Cloud Security

Security

- Active Directory
- RBAC
- Multi-Factor Authentication
- Key Vault
- Data protection
- Network security
- System security
- Monitoring
- Response

Microsoft Dynamics CRM **bing** **Office 365** **Outlook**

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Datacenter Infrastructure (28 Regions, 19 Online)

Microsoft Threat Protection

A comprehensive, seamlessly integrated solution providing end-to-end security for your organization.

Microsoft Sentinel
SIEM + SOAR

Microsoft 365

Defender for Cloud

Defender for IOT

Azure Firewall , Azure DDoS and Azure WAF

Identities

Azure Active Directory

Azure ATP

Microsoft Cloud App Security

Endpoints

Microsoft Defender for Endpoint

Data & Email

Office 365 ATP

Microsoft Cloud App Security

Cloud Apps

Microsoft Cloud App Security

Cloud & Hybrid Infrastructure

INTERNET of THINGS

IoT and OT Environmentst

Networks and Web Traffic

Trusted Cloud Principles

Commitment to principles worthy of your organization's trust

Security

We will implement strong security measures to safeguard your data.

Transparency

We will explain what we do with your data in clear, plain language.

Compliance

We will help you meet your specific compliance needs.

Privacy & control

We will provide you with control over your data to help keep it private.

Assume and Prevent Breach Execution


Red Team | Prevent Breach

→ Code review   → Security development lifecycle (SDL)

→ Threat model   → Security testing

Blue Team | Assume Breach

→ War game exercises   → Live site penetration test

→ Central security monitors

Wargame exercises

Red teaming

Monitor emerging threats

Insider attack simulation

Execute post breach

Blue teaming

PROTECT

Security Development Lifecycle
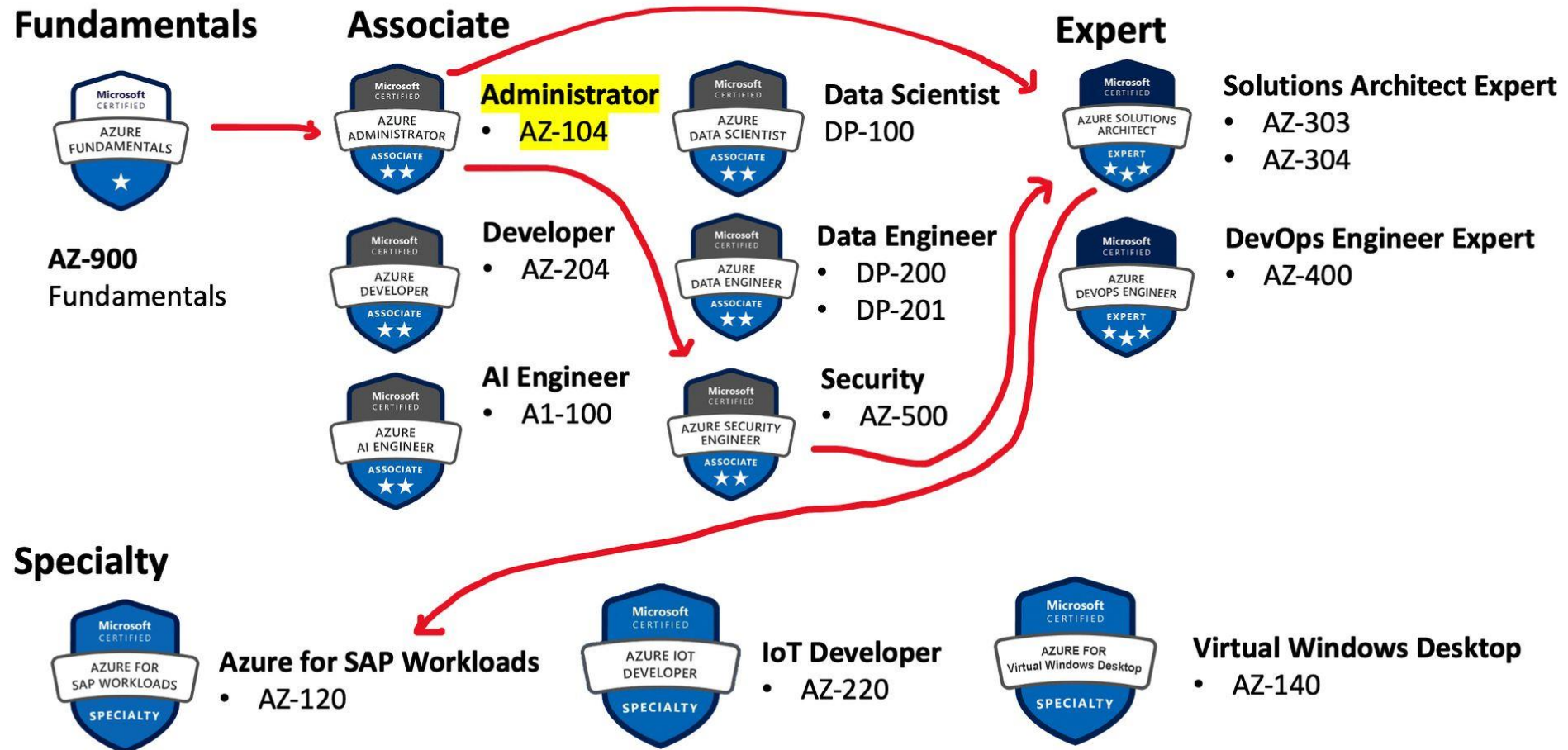Network security
User security
Data and key security
System security
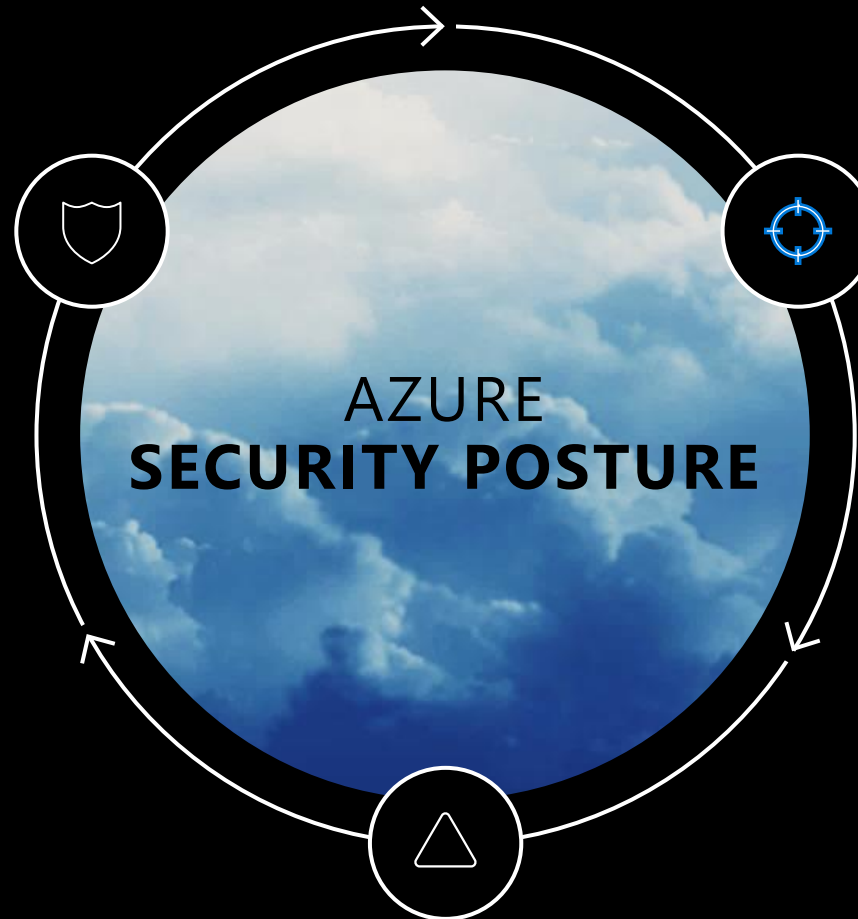
DETECT

Auditing and Certification
Live Site Penetration Testing
Centralized Logging and Monitoring
Fraud and Abuse Detection

AZURE
SECURITY POSTURE

RESPOND

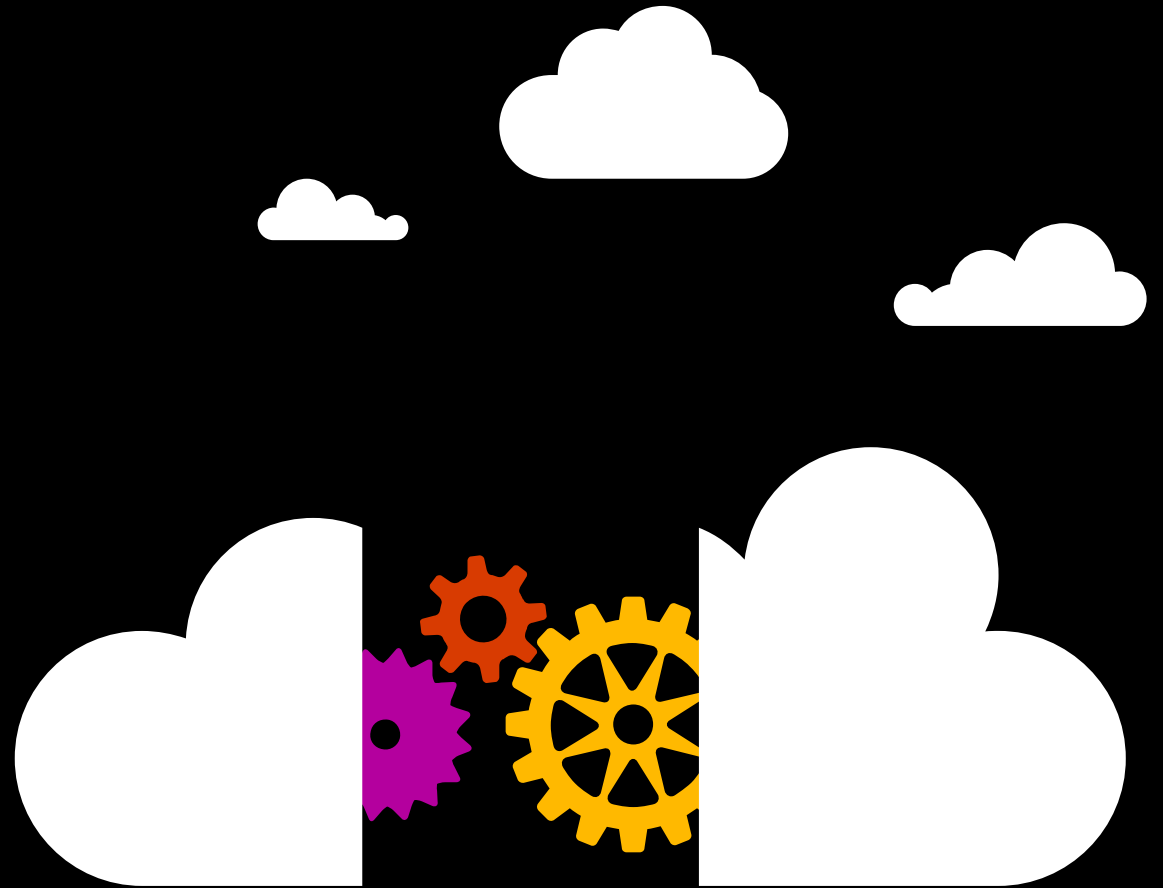Breach Containment
Coordinated Security Response
Customer Notification

Certification Paths

Microsoft Azure Careers:

- Azure Administrator.
- Azure Developer.
- Azure Solution architect.
- Azure Consultant.
- Azure Data Scientist.
- Azure Networking Specialist

Microsoft

Azure Portal Demo Time

Thank You