

AZ-030T00 A Microsoft Azure Technologies for AWS Architects

Course Summary

Description

This course teaches Solutions Architects who have previously designed for Amazon Web Services how to translate business requirements into secure, scalable, and reliable solutions for Azure. Lessons include virtualization, automation, networking, storage, identity, security, data platform, and application infrastructure. This course outlines how decisions in each these area affects an overall solution

Objectives

After taking this course, students will be able to:

- Secure identities with Azure Active Directory and users and groups.
- Implement identity solutions spanning on-premises and cloud-based capabilities
- Apply monitoring solutions for collecting, combining, and analyzing data from different sources.
- Manage subscriptions, accounts, Azure policies, and Role-Based Access Control.
- Administer Azure using the Resource Manager, Azure portal, Cloud Shell, and CLI.
- Configure intersite connectivity solutions like VNet Peering, and virtual network gateways.
- Administer Azure App Service, Azure Container Instances, and Kubernetes.

Topics

- Introduction to Azure
- Azure global infrastructure
- Implement Azure Active Directory
- Implement and manage hybrid identities
- Implement virtual networking
- Implement VMs for Windows and Linux
- Implement load balancing and network security
- Implement container-based applications
- Implement an application infrastructure
- Implement storage accounts
- Implement NoSQL databases
- Implement Azure SQL databases
- Implement cloud infrastructure monitoring
- Implement and manage Azure governance solutions
- Manage security for applications
- Migration, backup, and disaster recovery management

Audience

This course is for AWS Cloud Architects with expertise in designing and implementing solutions running on AWS who now want to design for Microsoft Azure.

Prerequisites

- Experience (>1year) as an AWS Architect designing secure and scalable AWS cloud solutions across storage structures, compute, networking, and the interaction with external resources/services.
- Understanding of on-premises virtualization technologies, including: VMs, virtual networking, and virtual hard disks.
- Understanding of network configuration, including TCP/IP, Domain Name System (DNS), virtual private networks (VPNs), firewalls, and encryption technologies.
- Understanding of Active Directory concepts, including domains, forests, domain controllers, replication, Kerberos protocol, and Lightweight Directory Access Protocol (LDAP).
- Understanding of resilience and disaster recovery, including backup and restore operations.
- Understanding of programming fundamentals and use of a scripting language.

Duration

Four days

AZ-030T00 A Microsoft Azure Technologies for AWS Architects

Course Outline

I. Introduction to Azure

In this module, you'll learn about how Azure organizes subscriptions and accounts, and you can set up resource groups and templates to standardize creation and life-cycle management of your resources.

- A. Subscriptions and accounts
- B. Resource groups and templates in Azure Resource Manager

II. Azure global infrastructure

In this module, you'll see the worldwide architecture of Microsoft Azure and how that architecture affects the availability and reliability of your applications and sites.

- A. Azure regions
- B. Azure Availability Zones
- C. Comparison with AWS

III. Implement Azure Active Directory

In this module, you will learn how to secure identities with Azure Active Directory, and implement users and groups.

- A. Introduction to Azure Active Directory
- B. Domains and custom domains
- C. Safety features
- D. Guest users in Azure Active Directory
- E. Manage multiple directories
- F. Comparison with AWS

IV. Implement and manage hybrid identities

In this module, you will learn how to extend your on-premise Active Directory accounts to the cloud, and how to sync the accounts.

- A. Introduction to Azure AD Connect
- B. Comparison with AWS

V. Implement virtual networking

In this module, you will learn about basic virtual networking concepts like virtual networks and subnetting, IP addressing, Azure DNS, network security groups, and Azure Firewall.

- A. Azure Virtual Network and VNet peering
- B. VPN and ExpressRoute connections
- C. Comparison with AWS

VI. Implement VMs for Windows and Linux

In this module, you will learn how to configure VMs for high availability and how to deploy and configure scale sets.

- A. Configure high availability
- B. Comparison with AWS

VII. Implement load balancing and network security

In this module, you will learn how to implement Azure Load Balancer, and how to set up security groups.

- A. Implement Azure Load Balancer
- B. Implement an Azure Application Gateway
- C. Implement Azure Firewall
- D. Implement network security groups and application security groups
- E. Comparison with AWS

VIII. Implement container-based applications

In this module, you will learn how to configure the Azure Kubernetes Service and how to publish a solution on an Azure container.

- A. Configure Azure Kubernetes Service
- B. Publish a solution on an Azure Container Instance
- C. Comparison with AWS

IX. Implement an application infrastructure

In this module, you'll learn the basics of selecting an App Service plan, configuring your plan, and setting up Logic Apps and Azure Functions.

- A. Create an App Service plan
- B. Create and configure Azure App Service
- C. Configure networking for an App Service
- D. Introduction to Logic Apps and Azure Functions
- E. Comparison with AWS

X. Implement storage accounts

In this module, you'll be introduced to Azure Storage and how to configure network access, replication, authentication, access, and failover.

- A. Azure Storage core concepts
- B. Managing the Azure Blob storage lifecycle
- C. Working with Azure Blob storage

Comparison with AWS

AZ-030T00 A Microsoft Azure Technologies for AWS Architects

Course Outline (cont'd)

XI. Implement NoSQL databases

In this module, you will learn about Azure Cosmos DB and how to configure it.

- A. Introduction to Azure Cosmos DB
- B. Consistency
- C. Select appropriate CosmosDB APIs
- D. Set up replicas in CosmosDB
- E. Comparison with AWS DynamoDB

XII. Implement Azure SQL databases

In this module, you will learn how to implement managed instances of Azure SQL database and how to configure it for high availability.

- A. Configure Azure SQL database settings
- B. Implement Azure SQL Database managed instances
- C. Configure high availability for an Azure SQL database
- D. Comparison with AWS

XIII. Implement cloud infrastructure monitoring

In this module, you will learn how to use Azure Monitor to set alerts and how to log and manage costs.

- A. Monitor security
- B. Monitor cost
- C. Configure a Log Analytics workspace
- D. Comparison with AWS

XIV. Implement and manage Azure governance solutions

In this module, you will learn how to configure role-based access control and how to configure Azure Policy to force compliance with governance requirements.

- A. Assign RBAC roles
- B. Configure management access to Azure
- C. Implement and configure an Azure Policy
- D. Comparison with AWS

XV. Manage security for applications

In this module, you will learn how to implement and configure KeyVault, how to register and manage application in Azure Active Directory, and how to configure Azure Active Directory Managed Identities.

- A. Implement Azure Key Vault
- B. Implement and configure Azure AD Managed Identities
- C. Register and manage applications in Azure AD
- D. Comparison with AWS

XVI. Migration, backup, and disaster recovery management

In this module, you will learn how to migrate workloads, and how to manage backup, disaster recovery, and updates.

- A. Migrate workloads
- B. Implement Azure Backup for VMs
- C. Implement disaster recovery
- D. Comparison with AWS