

AWS Foundations

Course ID: MSAZ2018



Course Description

This two-day workshop covers the foundational elements of Amazon Web Services (AWS). An interactive workshop with real-time demos, it is designed to serve the needs of engineers who want to understand how AWS can be used to solve real-world problems using Cloud Architecture best practices.

Learning Objectives

After this course you should be able to:

- + Describe the foundational elements of AWS
- + Understand the core architectural practices of AWS IaaS and PaaS services
- + Articulate the benefits of AWS and its services to real-world use cases

Who Should Attend

- + Data Center Architects
- + Cloud Solution Architects
- + Cloud Administrators
- + System Administrators
- + Security Team Personnel
- + Executive Sponsors

Prerequisites

- + Understanding of Server System Design and Architecture
- + Familiarity with Server Virtualization
- + Understanding Application Architecture
- + Familiarity with Data Center Networking Technologies and Storage Concepts
- + Familiarity with Cloud Computing Concepts

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(2 Days)

Course Content

Module 1: Cloud Architecture Design Principles and Best Practices

- + Business Challenges
- + AWS Well Architected Framework
- + Service Model Use Cases – IaaS, PaaS, SaaS

Module 2: AWS Foundation

- + Components of AWS
- + Regions + Availability Zones
- + Amazon Resource Names (ARN)
- + AWS Orgs and Account Structures
- + Support Structures
- + Tagging Strategies

Module 3: Network

- + Getting to the Cloud with INET VPNs and DirectConnect
- + Intra Cloud-VPC fundamentals
- + VPC Peering and VPN
- + Securing VPC with NACLs/SGs and Appliances
- + Load Balancing options-NLB +ALB

Module 4: Compute

- + EC2 VMs
- + AMI Best Practices
- + Elastic Beanstalk and Lambda
- + Container Options
- + AutoScaling Groups

Module 5: Storage

- + Choosing the Right Storage for the Application
- + S3, Glacier + EFS
- + VM Storage with EBS
- + Moving Large Datasets into the Cloud

Module 6: Security

- + Cloud Shared Responsibility Model
- + Compliance Concerns
- + NACLs and Security Groups
- + Encryption
- + GuardDuty
- + Certificate Manager

Module 7: Identity

- + Directory Services in AWS
- + Identity and Access Management (IAM)
- + Federation
- + MFA

Module 8: Business Continuity

- + Prepare for Failure
- + AWS Backup Options
- + Be Prepared and Test – Ongoing failure injection

Module 9: Automation

- + The Need and Benefits of Automation
- + AWS CLI and PowerShell
- + IaC with CloudFormation and Terraform

Module 10: Migration

- + Greenfield, Lift and Shift and Refactor
- + Migration Planning
- + Carrying out the Migration
- + Server + DB Migration Service

Module 11: Database Options

- + Advantages of DBaaS vs DIY on EC2
- + RDS + Aurora
- + NoSQL with DynamoDB
- + Sizing and Scaling your DBs
- + HA and Global Redundancy

Module 12: Day 2 Ops-Monitoring and Alerting

- + Native AWS Tools and 3rd Party Integrations
- + The Basics: CloudTrail and CloudWatch
- + AWS Config

Module 13: AWS Costing

- + How to Manage and Monitor Cost
- + AWS Native and 3rd Party Tools
- + Understanding AWS Service Pricing
- + Right Sizing and Monitoring

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