Advanced Architecting on AWS

Building on concepts introduced in **Architecting on AWS**[1], this course is intended for individuals who are experienced with designing scalable and elastic applications on the AWS platform. This course covers how to build complex solutions which incorporate data services, governance, and security on AWS, in addition to introducing specialized AWS services, including AWS Direct Connect and AWS Storage Gateway to support Hybrid architecture. It also covers designing best practices for building scalable, elastic, secure, and highly available applications on AWS.

At the end of this course, you will be able to:

- Apply the AWS Well-Architected Framework
- Manage multiple AWS accounts for your organization
- Connect on-premises datacenter to AWS cloud
- Discuss billing implications of connecting multi-region VPCs
- Move large data from on-premises datacenter to AWS
- Design large datastores for AWS cloud
- Understand different architectural designs for scaling a large website
- Protect your infrastructure from DDoS attack
- Secure your data on AWS with encryption
- Design protection of data-at-rest as well as data-in-flight
- Enhance the performance of your solutions
- Select the most appropriate AWS deployment mechanism

Who Should Attend?

This course is intended for individuals who are experienced with designing scalable and elastic applications on the AWS platform.

Prerequisites

We recommend that attendees of this course have the following prerequisites:

- Attended Architecting on AWS
- Achieved AWS Certified Solutions Architect - Associate

Delivery Method

This course is delivered through a mix of:

- Classroom training
- Digital training
- Hands-On Labs

Hands-On Activity

This course allows you to test new skills and apply knowledge to your working environment through a variety of practical exercises.

Course Outline

Day 1

- Architecting on AWS Review
- AWS Account Management

Day 2 (continued)

- Migrating databases into AWS
- Designing for Big Data

- Advanced Networking on AWS
- Deployment Management on AWS
- Build a Hybrid Architecture

Day 2

- Leverage Amazon ElastiCache to handle and store data at scale
- Build a Failover Solution with Amazon Route 53 and Amazon RDS Read Replication
- AWS Snowball
- Amazon S3 Transfer Acceleration
- AWS Storage Gateway
- Backing up and archiving data on AWS
- Amazon DynamoDB for Big Data
- DynamoDB Streams
- DynamoDB for Big Data Design Patterns
- Design for Large Scale Applications
- Deployment with Elastic Beanstalk

Day 3

- Build Resilient Architectures Part A
- CloudFront Content Delivery and Automating WAF Rules
- Encryption and Security of Data
- KMS Envelope Encryption
- Design for Performance