Networking Essentials for Cloud Applications on AWS

Duration : 1 Days

Course Content

The Networking Essentials for Cloud Applications on AWS course provides a comprehensive understanding of networking concepts and services within the Amazon Web Services (AWS) cloud environment. Designed for novice and experienced networking engineers, this course covers essential topics, best practices, and hands-on labs. Its purpose is to equip learners with the knowledge and skills that are required to design, configure, and optimize network infrastructure on AWS.

Who Should Attend

This course is intended for:

- Newly hired cloud engineers
- On-premises IT engineers
- Cloud architects
- Cloud engineers
- Network engineers

Prerequisites

We recommend that attendees of this course have:

- Basic knowledge of networking concepts
- Basic knowledge of AWS services
- AWS Technical Essentials or Cloud Practitioner Essentials

Course objectives

In this course, you will learn to:

- Design a networking infrastructure for a scalable production application, considering design trade-offs between different networking services.
- Configure networking services for a highly available, resilient, and scalable application.
- Implement the networking infrastructure according to evolving business requirements.
- Implement networking best practices to align towards AWS Well-Architected Framework.

Course Outline

Module 0: Course Introduction

- Introductions
- Course overview

Module 1: Networking on AWS

- IP addressing
- Amazon Virtual Private Cloud (Amazon VPC) fundamentals
- Subnets
- Amazon VPC IP Address Manager (IPAM)
- Elastic Network Interfaces
- Elastic IP addressing
- Route table
- Internet and NAT gateways
- Basic traffic filtering mechanisms for a VPC

Module 2: Load Balancing and Scaling on AWS

- Elastic Load Balancing (ELB)
- Cross-zone load balancing
- Auto Scaling group (ASG) basics
- Hands-on lab: Building a Multi-Availability Zone VPC Architecture

Module 3: VPC Interconnectivity and Content Delivery

- VPC interconnectivity
- VPC peering
- VPC Transit Gateway
- VPC endpoints
- Edge locations
- AWS Global Accelerator
- Hands-on lab: Accelerating Performance with Amazon CloudFront

Module 4: High Availability with Amazon Route 53

- Amazon Route 53
- Hands-on lab: Achieving Fault Tolerance and Global Traffic Optimization

Module 5: Course Wrap-Up

- Course reflection
- Use case labs recap
- Use case conclusion