

Networking Essentials for Cloud Applications on AWS

Course Duration: 8 Hours

Course Code: AWS-NESA-101

1. Course Overview

This course provides a comprehensive understanding of networking concepts essential for deploying and managing cloud applications on AWS. You will learn how to design, implement, and troubleshoot network architectures, ensuring secure and efficient communication between cloud resources. This course bridges the gap between traditional networking and cloud-native networking practices on AWS, enabling you to confidently build scalable and reliable applications.

2.2. What You'll Learn?

- Core networking concepts and how they apply to AWS.
- Virtual Private Cloud (VPC) design, configuration, and management.
- Subnets, route tables, internet gateways, and NAT devices.
- Security groups, network access control lists (ACLs), and firewall configurations.
- Load balancing, DNS, and domain management using AWS Route 53.
- Monitoring, troubleshooting, and optimizing cloud network performance.

3. Target Audience

- Cloud architects and network engineers looking to enhance AWS networking skills.
- Developers and DevOps professionals involved in cloud application deployment.

- IT professionals seeking to understand AWS networking fundamentals.
- Anyone preparing for AWS certifications focusing on networking or cloud architecture.

4. Pre-Requisites

- Basic understanding of networking concepts (TCP/IP, DNS, routing).
- Familiarity with cloud computing fundamentals.
- Basic knowledge of AWS services is recommended but not mandatory.

5. Course Content

Module 1: Introduction to AWS Networking

- Overview of cloud networking
- Differences between traditional and cloud networks

Module 2: Virtual Private Cloud (VPC) Fundamentals

- VPC creation and configuration
- Subnets, route tables, and gateways

Module 3: Security in AWS Networking

- Security groups vs. network ACLs
- Best practices for secure network design

Module 4: AWS Networking Services

- Elastic Load Balancing (ELB)
- AWS Direct Connect and VPN

Module 5: Domain Name System (DNS) and Route 53

- Hosted zones and domain management
- Routing policies and failover strategies

Module 6: Monitoring and Troubleshooting Networks

- AWS CloudWatch and VPC Flow Logs
- Network performance optimization and troubleshooting

Module 7: Hands-on Labs and Case Studies

- Building and securing a VPC
- Deploying multi-tier applications with load balancers
- Troubleshooting network connectivity issues

