AWS Advanced Networking

Designing and Implementing AWS Network

For

Cloud Applications on AWS

Module-1

- ➢ Global Infrastructure of AWS
- ➢ AWS Regions
- ➢ AWS Availability Zones
- ➢ AWS Local Zones and Edge Locations
- ➢ AWS OutPost Family

Module-2

- ➢ IP fundamentals
- ➢ VPC fundamentals
- ➢ Purpose and function of subnets within a VPC
- ➢ AWS IPAM: IP address allocation
- ➢ Elastic network interfaces and IP addresses
- ➢ Custom route tables for directing traffic
- ➢ Role of an internet, NAT and egress-only gateways
- ➢ Network access control lists
- ➢ Security groups

Module-3

- ➢ AWS Compute Services
- ➢ EC2 Custom AMIs
- ➢ EC2 Enhanced Networking
- ➢ EC2 Placement Group
- ➢ EC2 high performance storage
- ➢ EC2 NAT Instances

Module-4

- ➢ Amazon CloudFront: CDN service
- ➢ AWS Global Accelerator
- ➢ Concepts of VPC endpoints and their role
- ➢ Concepts of VPC peering
- ➢ VPC Transit Gateway

Module-5

- AWS Client VPN
- Optimizing VPN design
- AWS Direct Connect.
- Devices Resiliency and Load sharing

Module-6

- Amazon Route 53 Overview
- Route 53 hosted zones.
- Route 53 Health checks and monitoring.
- Route 53 Routing Policies
- Elastic Load Balancing service
- Key features of an ALB and NLB
- Auto Scaling Group with Load Balancer

Module-7

- Methods to interact with AWS services
- Deployment using AWS CloudFormation
- Explore the AWS CLI Access
- AWS CLI Projects
    - Accessing AWS CLI Interface
    - AWS CLI for IAM
    - AWS CLI for VPC

Module-8

- Explore security and compliance
- AWS WAF and Distributed denial of service (DDoS) attacks
- AWS Shield and Shield Advanced
- AWS Firewall Manager
- Compliances Services: AWS Config and Trusted Advisor
- Securing your network communications with ACM

Module-9

- Explore the Monitoring tools
- Explore AWS CloudWatch
- Explore AWS Cloud Trail
- Explore VPC Flow Logs
- Described troubleshooting scenarios