

Amazon Web Services (AWS)-SysOps&SolutionArchitech

Introduction

Cloud Computing

What is cloud computing?

Advantages of cloud computing

Cloud Delivery Models

Cloud Deployment Models

Why AWS?

History of AWS

Certification Levels

UNIX / Linux Pre-requisites

Elastic Compute Cloud (EC2)

Different instance types

Volumes & Snapshots

Root Device Volumes Vs Instance Store

Amazon Machine Image (AMI)

Elastic IPs (EIP)

Key pairs

Security Groups

AWS CLI

IAM Roles with EC2

Bootstrap scripts

Elastic Load Balancer

EC2 instance Metadata

instance store volumes

EC2 to S3 communication

Identity Access Management (IAM)

AWS root user permissions

Users / groups, Roles

Policies, MFA authentication

Modifying and deleting users / groups / roles

Creation of Custom policies

Simple Storage Service (AWS S3)

Bucket and Objects

Create a static website in S3

Cross Region Replication

Versioning

Cross Origin Resource Sharing

Permissions

- Security and Encryption
- S3 Transfer Allocation
- S3 Object logging
- S3 to api communicatons like SNS and Lamda
- Creating a CDN / Cloud Front
- Glacier

Virtual Private Cloud (VPC)

- VPC overview
- Default VPC vs Custom VPC
- Subnets / route tables / Internet Gateway
- Network ACL
- Security group vs Network ACL
- NAT instance Creation
- Creating instances under VPC
- NAT gateways
- Communication between public to Private VPCs
- VPC -Peering
- Communication between two VPC's within region
- Communication between two VPC's in multiple regions

ElasticBeanstalk

- What is ElasticBeanstalk
- Using ElasticBeanstalk

CloudFormation

- Introduction to CloudFormation
- Using CloudFormation
- Creation of CloudFormation Templates

CloudFront

- Origin / Edge Location
- Web Distribution
- RTMP

Simple Queue Service (SQS)

- Queue Creations
- Retention Periods

Simple Notification Services (SNS)

- Creating a SNS Topic
- Subscriptions
- Notification & Applications

CloudWatch

- Alarms, Events and Metrics
- Monitoring AWS services
- Creating a dashboard
- Customer metrics
- Cost optimization, Billing and Alerts

CloudTrail

- How to create Trail
- Storing all api logs and captured all transactions into trail

Route53

- Basics of Route53
- Routing policies
- Aliasing records
- Hosting Site into AWS
- DNS management activities

Relation Database Services on AWS

- Creating an RDS instance
- Backing up and restoring RD
- ARD and Multi-AZ failover
- Multi-Availability zones and Read Replicas

DynamoDB

- Creation of DynamoDB table
- Filtering /Selecting data from DynamoDB

AutoScaling

- Launch Configuration, Creating Autoscaling
- Automation and Setting up AMI
- Understanding consolidated billing

Elastic Block Storage

- What is ELB , Filesystems
- Types of Storage Types , Attach/Detach Storage Volumes
- Backups & Snapshots
- Difference between EBS and EFS .

Elastic File System

- Creation of Filesystems using EFS
- Integrates EFS to Ec2 instances

Lambda

- Creation of business objects
- Automate for backups of EBS volumes using Lamda

VPC peering**Storage Gateway****Import & Export****Elastic Filesystems**

Hands on Real-time project and Migrations

EC2 status and Auto Scaling issues

Migrating Instances from one region to another

Building own WordPress website in AWS

Architecting for the AWS cloud – Best Practices

FAQ's discussion for each topic and Certificate Dumps

Note :

For each and every topics we will discuss topics which were updated by AWS as of now