AWS Certified Cloud Practitioner
Training Bootcamp

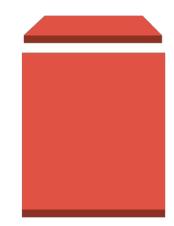
Elastic Block Store (EBS) Basics 101

Elastic Block Store (EBS) Basics

Amazon Elastic Block Store (EBS) provides block level storage volumes for use with EC2 instances

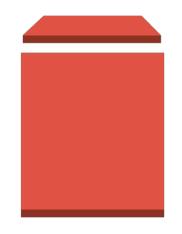
EBS volumes are highly available and reliable storage volumes that can be attached to any running instance that is in the same AZ

EBS volumes that are attached to an EC2 instance are exposed as storage volumes that persist independently from the life of the instance



Amazon EBS Volume Types

- Amazon EBS provides two volume types, which differ in performance characteristics and price
 - SSD volumes high IOPS
 - HDD volumes throughput over IOPS
- SSD volumes come in two flavors:
 - General Purpose SSD (gp2)
 - Balance between price & performance
 - Provisioned IOPS SSD (iol)
 - Highest performance SSD volume



Amazon EBS Volume Types

- HDD volumes also come in two flavors:
 - Throughput optimized HDD (stl)
 - Low-cost HDD volume designed for frequently accessed, throughput-intensive workloads

- Cold HDD (scl)
 - Lowest cost HDD volume designed for less frequently accessed workloads

Amazon EBS Encryption

For security reasons, data stored on EBS volumes may need to be encrypted; you can launch your EBS volumes as encrypted volumes

If you choose to create an encrypted EBS volume and attach it to your EC2, data stored and snapshots are encrypted ("at rest")

With data encrypted on your EBS volumes, you also ensure security for data "in-transit"

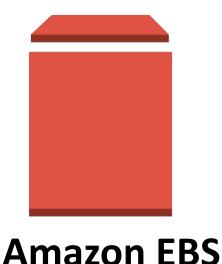


Amazon EBS Snapshots

You can take point-in-time snapshots of data on your Amazon EBS volumes and store them in AWS S3

Snapshots are incremental backups, which means that only data on the volume that has changed after your last snapshot is saved

Each snapshot contains all of the information needed to restore your data to a new EBS volume



Amazon EBS Pricing

- Amazon EBS pricing depends on the following:
- Volumes
 - Total storage of all EBS volumes, charged as GB/month
- Snapshots
 - Total snapshot storage consumed in AWS S3
 - EBS snapshot copying between regions is charged
- Data Transfer inbound is free, outbound is charged

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Thank you