



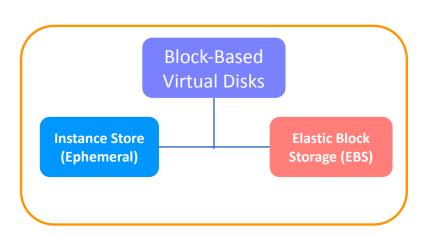








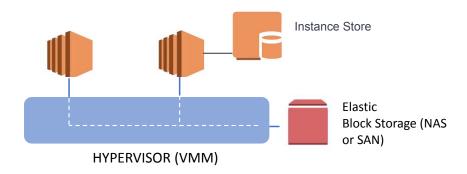
What is Volumes?



- Volumes are durable storage devices (virtual) that can be attached to EC2 instances.
- They are location in which the associated machine stores its data or loads its applications.
- There are two volume types in the block storage category. These are Instance Stores (Ephemeral) and Elastic Block Storage (EBS).

#### **EC2 Volumes**

Instance Store and Elastic Block Storage



- The storage connected directly to the hypervisor and accessible to each machine associated with the hypervisor is called the Instance Store.
- Instance Storage can be connected to only one instance. And is the closest storage device to your instance.









#### **EC2 INSTANCE STORE**

- Direct connect to one instance
- Non-persistent data storage
- No replication
- Snapshots are not available
- Both SSD and HDD Backed



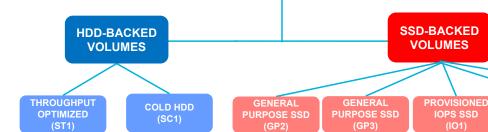
#### **ELASTIC BLOCK STORAGE**

- Connect to all instances
- Persistent data storage
- Replicates data in its own (AZ)
- Snapshots are available
- Both SSD and HDD Backed



## **EC2 Volumes**

**EBS Volume Types** 



There are 6 types of volumes in 2 categories for the different use cases.

**EBS VOLUMES** 

- HDD-backed volumes are used for large streaming workloads where throughput is a better performance measure than IOPS.
- SSD-backed volumes are used for frequent read/write operations where the dominant performance attribute is IOPS.





**IO2 BLOCK** 

**EXPRESS** 

IOPS SSD

## Let's get our hands dirty!

- Managing EBS Volumes on Console and Terminal
  - attaching
  - detaching
  - mounting
  - partition
  - resizing (single-partition)





# THANKS!

**Any questions?** 













