



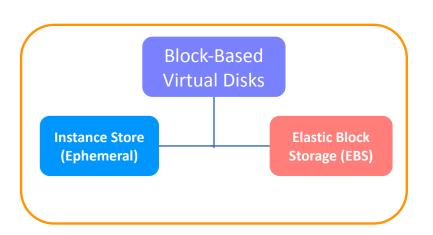








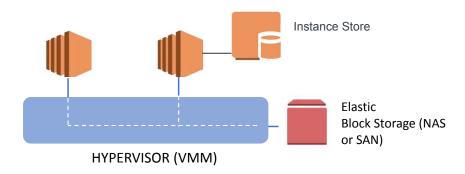
What is Volumes?



- 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.









Instance Store (Ephemeral) vs. Elastic Block Storage (EBS).



EC2 INSTANCE STORE

- Hardware attach
- Non-persistent data storage/ Terminated if you

stop the instance

- Snapshots are not available
- Used for Buffers, Cache, Temporary data
- No separate cost for storage



ELASTIC BLOCK STORAGE

- Network attached storage
- Persistent data storage
- Snapshots are available
- Separate cost for EBS even EC2 is stopped





EBS Volume Types

THROUGHPUT
OPTIMIZED
(ST1)

COLD HDD
(SC1)

HDD-BACKED

VOLUMES

EBS VOLUMES

GENERAL PURPOSE SSD (GP2) GENERAL PURPOSE SSD (GP3)

ENERAL PROVISIONED
POSE SSD IOPS SSD
(GP3) (IO1)

SSD-BACKED

VOLUMES

PROVISIONED IOPS SSD (IO2)

IO2 BLOCK EXPRESS

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

Let's get our hands dirty!

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





THANKS!

Any questions?







