



# AWS EC2 Volumes



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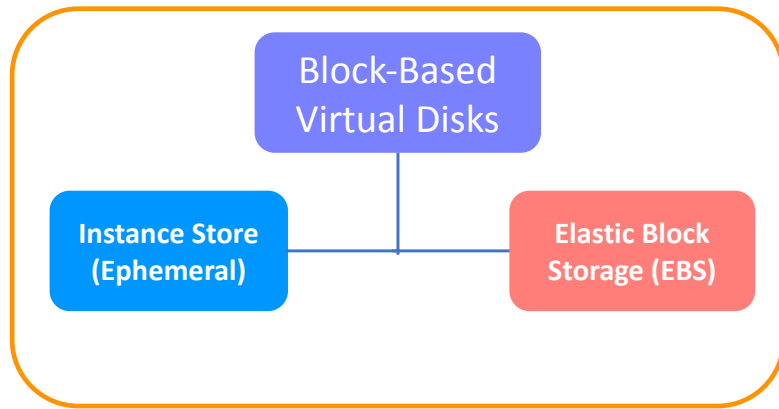


# EC2 Volumes

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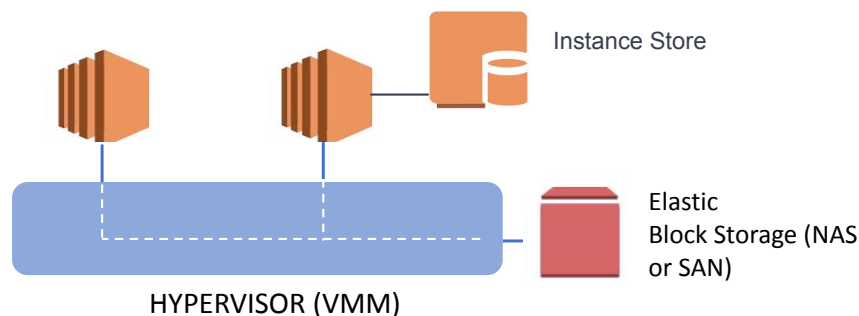
## What is Volumes?



- 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 Volumes

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



### EC2 INSTANCE STORE

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

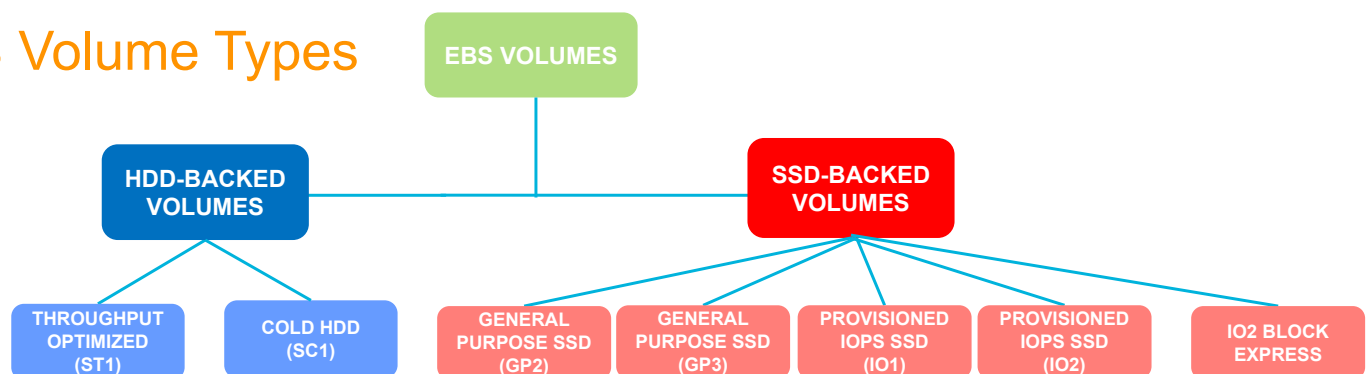


### ELASTIC BLOCK STORAGE

- 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.
- 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?





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