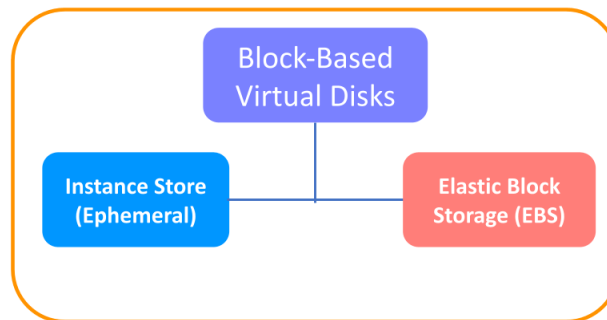


# AWS EC2 Volumes



CLARUSWAY  
WAY TO REINVENT YOURSELF

## EC2 Volumes What is Volumes?

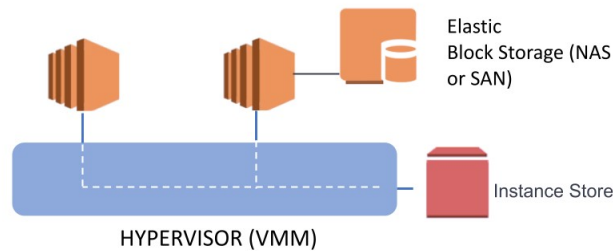


- Volumes are durable **storage devices (virtual)** that can be attached to EC2 instances.
- They are location in which the associated machine **stores its data or loads its applications**.
- There are two volume types in the block storage category. These are **Instance Stores (Ephemeral)** and **Elastic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



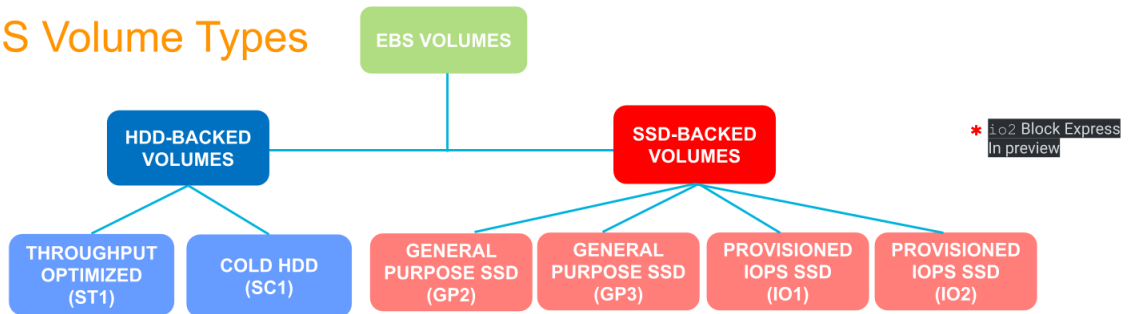
#### ELASTIC BLOCK STORAGE

- 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.