

EBS – "Elastic Block Storage"

Block storage for operating system volumes

What it is

- EBS is short for "elastic block storage"
- AWS users obtain a root volume when they launch EC2 instances, but can also create and attach new volumes to instances
- EBS volumes can be copied to other regions (data transfer fees apply)
- Users can save snapshots of EBS volumes for backup and/or DR purposes
- Multiple sizes and storage classes are available and can be changed

How it's billed

- Users pay based on the **quantity of storage PROVISIONED** on their volumes over time
- Prices are quoted in GB/month
- For snapshots, empty blocks are not saved, so users pay only for the amount of data saved in the snapshot

How to reduce costs

1. Quick Wins

- Look for unattached volumes. If the data is still needed, save as snapshots and then delete.
- Look for attached volumes that have had no IOPs for 2 weeks. Consider nuking from orbit.

2. Reduce Quantity of Storage

- Don't overprovision volume size.
- Use a retention policy for backups.
- Object storage required by multiple hosts should be stored on EFS or S3 instead.

3. Reduce Cost of Storage

- Use the cheapest storage class.
- When instances are stopped, **downgrade** the storage class to Cold HDD. Nothing needs high performance storage when it's not running.