AWS Backup:

What Is AWS Backup?

Backup allows you to consolidate your backups across multiple AWS services, such as EC2, EBS, EFS, Amazon FSx for Lustre, Amazon FSx for Windows File Server, and AWS Storage Gateway.

It can include other services, such as database technologies like RDS and DynamoDB.

AWS Backup with Organizations

Backup can be used with AWS Organizations to back up multiple AWS accounts in your organization.

It gives you centralized control across all AWS services, in multiple AWS accounts across the entire AWS organization.

Benefits of AWS Backup

1. **Central Management**
   Use a single, central backup console, allowing you to centralize your backups across multiple AWS services and multiple AWS accounts.

2. **Automation**
   You can create automated backup schedules and retention policies. You can also create lifecycle policies, allowing you to expire unnecessary backups after a period of time.

3. **Improved Compliance**
   Backup policies can be enforced while backups can be encrypted both at rest and in transit, allowing alignment to regulatory compliance. Auditing is made easy due to a consolidated view of backups across many AWS services.

AWS Backup

- **Consolidation:** Use AWS Backup to back up AWS services, such as EC2, EBS, EFS, Amazon FSx for Lustre, Amazon FSx for Windows File Server, and AWS Storage Gateway.
- **Organizations:** You can use AWS Organizations in conjunction with AWS Backup to back up your different AWS services across multiple AWS accounts.
- **Benefits:** Backup gives you centralized control, letting you automate your backups and define lifecycle policies for your data. You get better compliance, as you can enforce your backup policies, ensure your backups are encrypted, and audit them once complete.

EBS EXAM TIPS

EBS: SSD Volumes

Highly available and scalable storage volumes you can attach to an EC2 instance.

gp2

General Purpose SSD

- Suitable for boot disks and general applications.
- Up to 16,000 IOPS per volume.
- Up to 99.9% durability.

gp3

General Purpose SSD

- Suitable for high performance applications.
- Predictable 3,000 IOPS baseline performance and 125 MiB/s regardless of volume size.
- Up to 99.9% durability

EBS: SSD Volumes

Highly available and scalable storage volumes you can attach to an EC2 instance.

io1

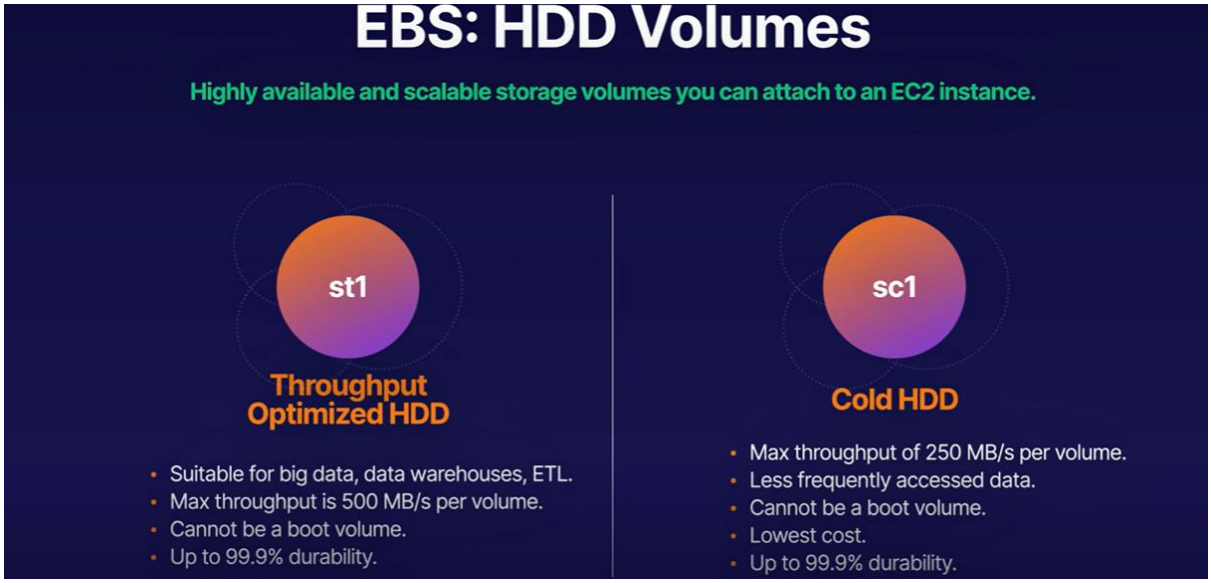
Provisioned IOPS SSD

- Suitable for OLTP and latency-sensitive applications.
- 50 IOPS/GiB.
- Up to 64,000 IOPS per volume.
- High performance and most expensive.
- Up to 99.9% durability.

io2

Provisioned IOPS SSD

- Suitable for OLTP and latency-sensitive applications.
- 500 IOPS/GiB.
- Up to 64,000 IOPS per volume.
- 99.999% durability.
- Latest generation Provisioned IOPS volume.


EBS: HDD Volumes
Highly available and scalable storage volumes you can attach to an EC2 instance.
st1
Throughput Optimized HDD
Suitable for big data, data warehouses, ETL.
Max throughput is 500 MB/s per volume.
Cannot be a boot volume.
Up to 99.9% durability.
sc1
Cold HDD
Max throughput of 250 MB/s per volume.
Less frequently accessed data.
Cannot be a boot volume.
Lowest cost.
Up to 99.9% durability.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Tips for EBS Volumes and Snapshots
Volumes exist on EBS, whereas snapshots exist on S3.
Snapshots are point-in-time photographs of volumes and are incremental in nature.
The first snapshot will take some time to create. For consistent snapshots, stop the instance and detach the volume.
You can share snapshots between AWS accounts as well as between regions, but first you need to copy that snapshot to the target region.
You can resize EBS volumes on the fly as well as changing the volume types.