

EBS vs EFS vs S3 – Explanation Notes (2025)

Amazon EBS (Elastic Block Store)

Amazon EBS provides block-level storage volumes that are attached to EC2 instances. It behaves like a traditional hard disk and is designed for high performance and low latency.

EBS volumes are typically used as operating system disks or database storage. They can be attached to only one EC2 instance at a time (with limited Multi-Attach support).

Amazon EFS (Elastic File System)

Amazon EFS is a managed file system that can be shared by multiple EC2 instances simultaneously. It uses the NFS protocol and automatically scales as data grows or shrinks.

EFS is a regional service spanning multiple Availability Zones, making it highly available and suitable for shared workloads.

Amazon S3 (Simple Storage Service)

Amazon S3 is an object storage service designed for durability, scalability, and availability. It stores data as objects in buckets and is accessed using APIs or HTTP.

S3 is not a file system and cannot be mounted like EBS or EFS. It is best suited for backups, static content, and data lakes.

How to Choose the Right Storage

Use EBS for high-performance storage attached to a single EC2 instance, EFS for shared file systems across multiple EC2 instances, and S3 for highly scalable object storage.

EBS vs EFS vs S3 – Comparison Table

Feature	Amazon EBS	Amazon EFS	Amazon S3
Scalability	Manual resize	Automatic	Virtually unlimited
Performance	Fastest, very low latency	Medium latency	Higher latency
Access	Single EC2 (Multi-Attach limited)	Multiple EC2 & AWS services	Public or private
Use Cases	OS disks, databases	Shared file systems	Backups, static content
Interface	Mounted file system	POSIX (NFS)	REST API / Web