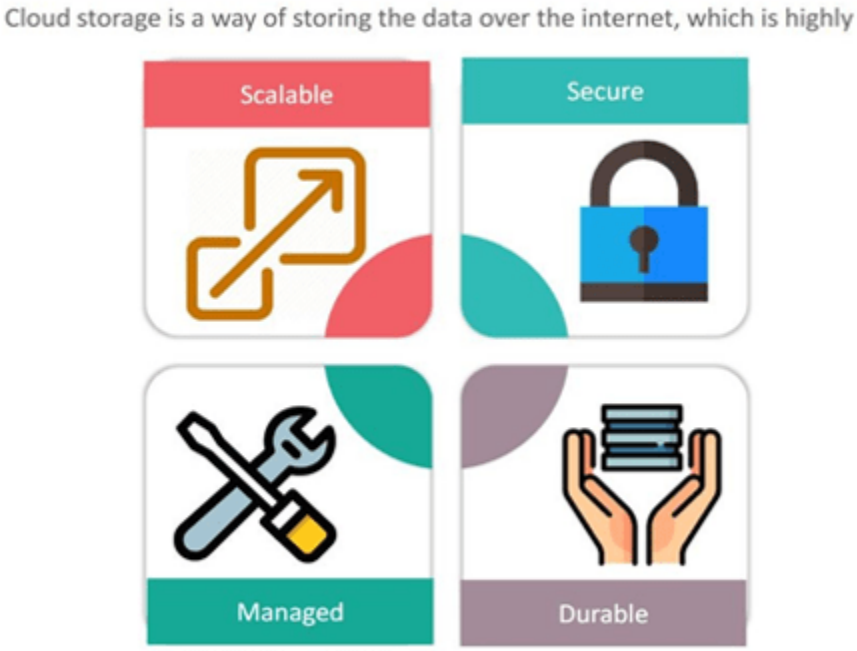
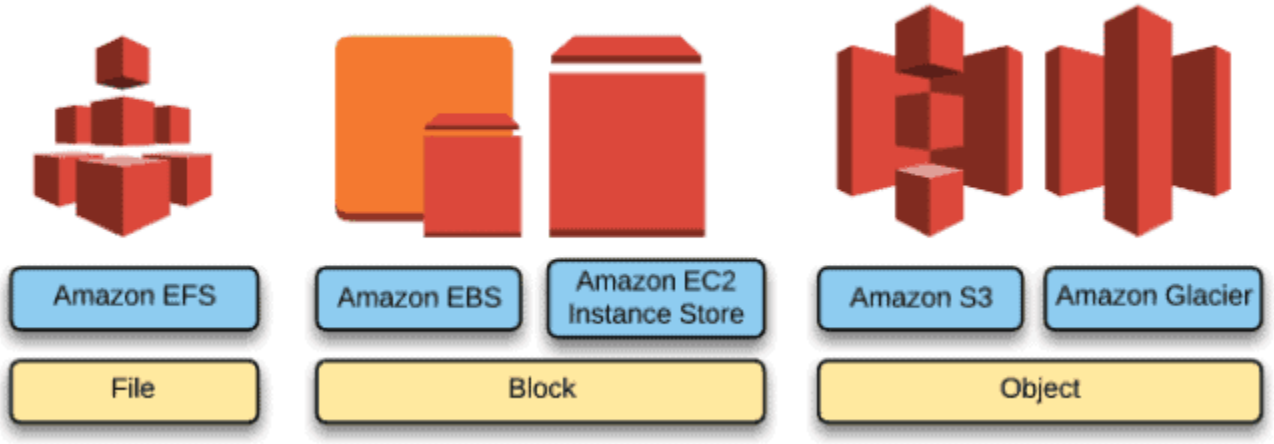
Object Storage Options

AWS Storage



AWS offers a complete range of services for you to store, access, govern, and analyze your data to reduce costs, increase agility, and accelerate innovation. Select from object storage, file storage, and block storage services, backup, and data migration options to build the foundation of your cloud IT environment.

Q1. How many storage services are there in AWS?
Ans. Amazon offers three broad categories of storage services: object, block, and file storage.



Q2. What is S3 used for?
Ans. Amazon Simple Storage Service (Amazon S3) is an object storage service that offers industry-leading scalability, data availability, security, and performance. You can use Amazon S3 to store and retrieve any amount of data at any time, from anywhere.
Q3. What is the Difference between EFS, EBS and S3?
Ans. Here are some of the differences.

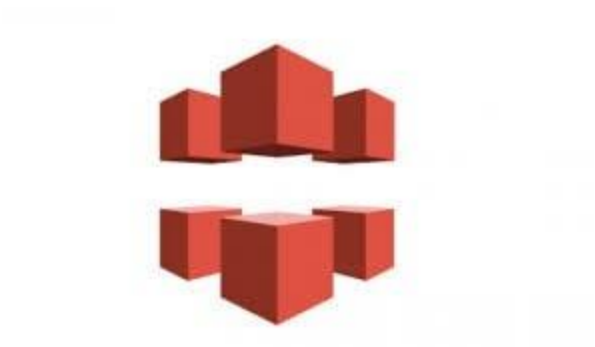
Amazon S3	Amazon EBS	Amazon EFS
Can be publicly accessible	Accessible only via the EC2 Machine	Accessible via several EC2 machine and AWS Services
Web interface	File system interface	Web and file system interface
Object storage	Block storage	File storage
Scalable	Hardly scalable	Scalable
Slowest among the all	Fastest among the all	Faster than S3, slower than EBS
Good for storing backups	Is meant to be EC2 drive	Good for sharable applications and workloads

Q4. How many storage classes does S3 have?
Ans. Following are the Storage Classes we have in S3.

	Standard	Intelligent Tiering	IA (Standard)	IA (One Zone)	Glacier	Glacier (Deep Archive)
Durability SLO	99.999999999%	99.999999999%	99.999999999%	99.999999999%	99.999999999%	99.999999999%
Availability SLO	99.99%	99.9%	99.9%	99.5%	99.99%	99.99%
Availability SLA	99.9%	99%	99%	99%	99.9%	99.9%
Availability Zones	≥3	≥3	≥3	1	≥3	≥3
Minimum capacity charge (per object)	N/A	N/A	128KB	128KB	40KB	40KB
Minimum storage time charge	N/A	30 days	30 days	30 days	90 days	180 days
Retrieval fee	N/A	N/A	per GB retrieved	per GB retrieved	per GB retrieved	per GB retrieved
First byte latency	milliseconds	milliseconds	milliseconds	milliseconds	select minutes or hours	select hours

CloudFront

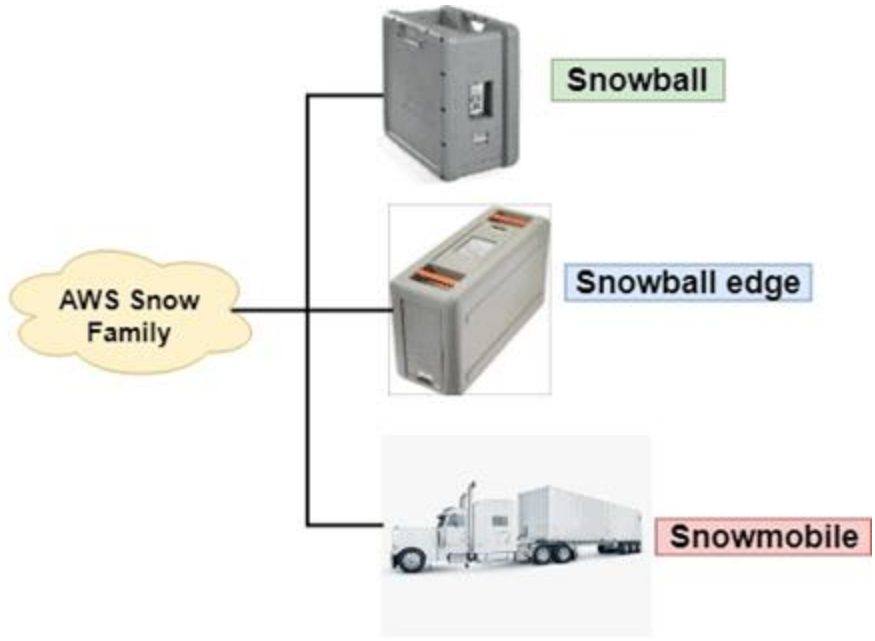
Amazon CloudFront is a content delivery network operated by Amazon Web Services. Content delivery networks provide a globally distributed network of proxy servers that cache content, such as web videos or other bulky media, more locally to consumers, thus improving access speed for downloading the content.



Q5. What is the main benefit of CloudFront?
Ans. By using Amazon CloudFront, the volume of application origin requests is automatically reduced. Content is stored in CloudFront's edge, and regional caches and only fetched from origins when needed. The load on application origins can further reduce by using Origin Shield to enable a centralized caching layer.
Q6. What is CloudFront origin?
Ans. An origin is a location where content is stored and from which CloudFront gets content to serve to viewers. To specify an origin: Use S3OriginConfig to specify an Amazon S3 bucket that is not configured with static website hosting. Any other HTTP server running on an Amazon EC2 instance or any other kind of host.
Q7. Is CloudFront region-specific?
Ans. Amazon CloudFront uses a global network of edge locations and regional edge caches for content delivery. You can see a full list of Amazon CloudFront locations here.
Check Out: How to Learn AWS.

AWS Snowball

AWS Snowball is a service that provides secure, rugged devices, so you can bring AWS computing and storage capabilities to your edge environments and transfer data into and out of AWS. These rugged devices are commonly referred to as AWS Snowball or AWS Snowball Edge devices.



Q8. What is the difference between AWS snowball and snowmobile?
Ans. AWS Snowball is a suitcase-sized data migration and edge computing device with two device options: Compute Optimized and Storage Optimized. AWS Snowmobile is a shipping container moved with a tractor-trailer.
Q9. How big is an Amazon snowball?
Ans. In the US regions, Snowballs come in two sizes: 50 TB and 80 TB. All other regions have the 80 TB Snowballs only. If you're using Snowball to import data, and you need to transfer more data than will fit on a single Snowball, create additional jobs.

AWS Storage Gateway

AWS Storage Gateway is a hybrid cloud service set that gives you on-premises access to virtually unlimited cloud storage. Customers use Storage Gateway to integrate AWS Cloud storage with existing on-site workloads to simplify storage management and reduce costs for key hybrid cloud storage use cases.

Q10. What is the main use case of AWS Storage Gateway?
Ans. The gateway connects your applications to AWS storage by providing standard storage interfaces. It provides transparent caching, efficient data transfer, and integration with AWS monitoring and security services.
Q11. What are the different types of storage gateway?
Ans. There are three types of Storage Gateways:

- File Gateway
- Volume Gateway
- Tape Gateway