

1. General Purpose (Standard S3 Buckets)

Description:

- This is the traditional and most commonly used S3 bucket type.
- Stores objects redundantly across **multiple Availability Zones** for high durability.
- Supports features like versioning, lifecycle rules, intelligent tiering, and event notifications.

Use Cases:

- Backup and restore
- Data lakes
- Application data storage
- Website hosting

Key Attributes:

- High durability: 99.999999999% (11 nines)
 - High availability
 - Multi-AZ redundancy
 - Designed for all workloads with various access patterns
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2. Directory (S3 Express One Zone Bucket)

Description:

- This is a **newer bucket type**, optimized for **low-latency and high-throughput** workloads.
- Data is stored in **a single Availability Zone**.
- Designed to **act like a file system**, with **strong consistency** and **directory-like semantics**.

Use Cases:

- Machine learning training data
- High-performance analytics
- Media processing
- Applications requiring **low-latency file access**

Key Attributes:

- Lower latency than general-purpose S3
- Faster metadata and file listing performance
- Strong read-after-write consistency
- Lower cost, but **less durable** (because it's stored in only one AZ)

Is "Directory" Bucket like EFS?

Some similarities but not the same:

Feature	S3 Directory Bucket (Express One Zone)	EFS (Elastic File System)
Access Protocol	S3 API (REST)	NFS (POSIX-compliant)
Latency	Low, but still object store	Lower (suitable for active file systems)
POSIX Support	No	Yes
Use as Mounted Filesystem	No	Yes
Pricing Model	Object-based (per GB + API requests)	File system-based (per GB + throughput)
Ideal for	Object storage with fast access	Applications needing shared, mountable file systems

Conclusion:

The **Directory** bucket is not exactly like **EFS**, but it's **designed to reduce the performance gap** between S3 and file systems. If you're used to EFS for low-latency, file-based access, the *Directory* bucket may be a **better S3-based alternative** — but it's **still object storage**, not a true file system.