**Bucket configuration options**

Amazon S3 supports various options for you to configure your bucket.

**1. CORS (cross-origin resource sharing)**

You can configure your bucket to allow cross-origin requests.

**2. event notification**

You can enable your bucket to send you notifications of specified bucket events.

**3. *lifecycle***

You can define lifecycle rules for objects in your bucket that have a well-defined lifecycle.

For example, you can define a rule to archive objects one year after creation, or delete an object 10 years after creation.

**4. location**

When you create a bucket, you specify the AWS Region where you want Amazon S3 to create the bucket.

**5. logging**

Logging enables you to track requests for access to your bucket.

Each access log record provides details about a single access request, such as the requester, bucket name, request time, request action, response status, and error code, if any.

**6. object locking**

To use S3 Object Lock, you must enable it for a bucket. You can also optionally configure a default retention mode and period that applies to new objects that are placed in the bucket.

**7. policy and ACL (access control list)**

All your resources (such as buckets and objects) are private by default.

Amazon S3 supports both bucket policy and access control list (ACL) options for you to grant and manage bucket-level permissions.

Amazon S3 stores the permission information in the *policy* and *acl* subresources.

**8. replication**

Replication is the automatic, asynchronous copying of objects across buckets in different or the same AWS Regions.

Buckets that are configured for object replication can be owned by the same AWS account or by different accounts.

You can copy objects between different AWS Regions or within the same Region.

To enable object replication, you add a replication configuration to your source bucket. The minimum configuration must provide the following:

* The destination bucket where you want Amazon S3 to replicate objects
* An AWS Identity and Access Management (IAM) role that Amazon S3 can assume to replicate objects on your behalf

**Types of object replication**

You can replicate objects between different AWS Regions or within the same AWS Region.

1. **Cross-Region replication (CRR)** is used to copy objects across Amazon S3 buckets in different AWS Regions.
2. **Same-Region replication (SRR)** is used to copy objects across Amazon S3 buckets in the same AWS Region.

Will see this topic in detail in replication concept.

**9. *tagging***

You can add cost allocation tags to your bucket to categorize and track your AWS costs.

Using tags, you apply to your bucket, AWS generates a cost allocation report with usage and costs aggregated by your tags.

**10. transfer acceleration**

Transfer Acceleration enables fast, easy, and secure transfers of files over long distances between your client and an S3 bucket.

Transfer Acceleration takes advantage of Amazon CloudFront’s globally distributed edge locations.

**11. versioning**

Versioning helps you recover accidental overwrites and deletes.

We recommend versioning as a best practice to recover objects from being deleted or overwritten by mistake.

**12. website**

You can configure your bucket for static website hosting.

**Note:** By default, you can create up to 100 buckets in each of your AWS accounts.

If you need additional buckets, you can increase your account bucket limit to a maximum of 1,000 buckets by submitting a service limit increase.

There is no difference in performance whether you use many buckets or just a few.

**Rules for bucket naming**

The following rules apply for naming S3 buckets:

* Bucket names must be between 3 and 63 characters long.
* Bucket names can consist only of lowercase letters, numbers, dots (.), and hyphens (-).
* Bucket names must begin and end with a letter or number.
* Bucket names must not be formatted as an IP address (for example, 192.168.5.4).
* Bucket names can't begin with xn-- (for buckets created after February 2020).
* Bucket names must be unique within a partition. A partition is a grouping of Regions. AWS currently has three partitions: aws (Standard Regions), aws-cn (China Regions), and aws-us-gov (AWS GovCloud [US] Regions).
* Buckets used with Amazon S3 Transfer Acceleration can't have dots (.) in their names. For more information about transfer acceleration.

**\*Note:** Amazon S3 is a global service. So, S3 buckets are globally unique. This means we can’t create a S3 bucket with the name which is taken already by another user global wide.

**\*Note:** When you create a bucket, you choose its name and the Region to create it in. After you create a bucket, you can't change its name or Region.

**Reusing bucket names**

If a bucket is empty, you can delete it. After a bucket is deleted, the name becomes available for reuse. However, after you delete the bucket, you might not be able to reuse the name for various reasons.

For example, when you delete the bucket and the name becomes available for reuse, another account might create a bucket with that name. Additionally, sometime might pass before you can reuse the name of a deleted bucket.

If you want to use the same bucket name, we recommend that you don't delete the bucket.