

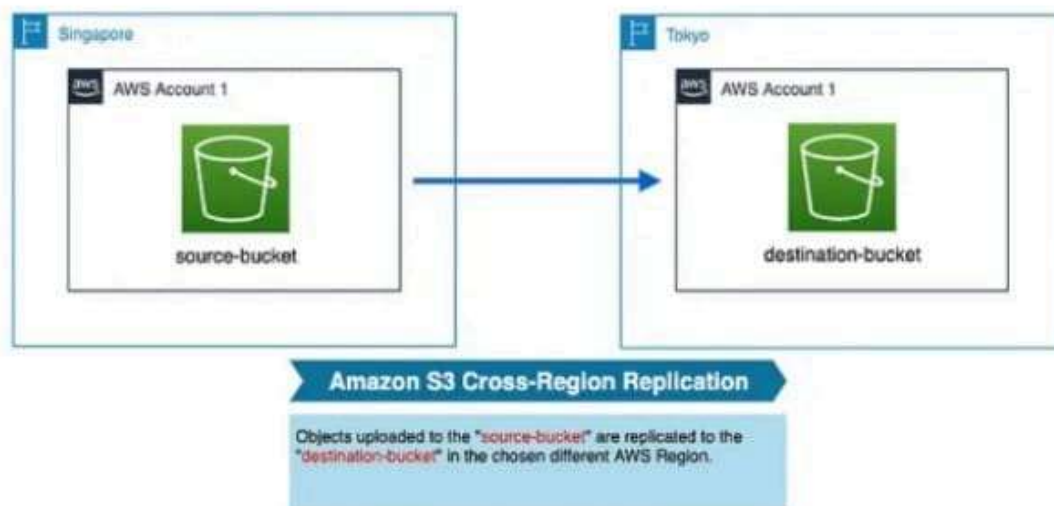
CROSS REGION REPLICATION IN S3

- S3 is a simple storage service and it is used for storage purposes, it is object based storage .
- In s3 we store the data in buckets .
- S3 is global and it is highly available,scalable,durable and secure.
- We can store any amount of data from anywhere in s3 because it is global .

CREATING BUCKET

- If we create a root level folder then it is called a bucket .
- The data is stored in the form of an object in a bucket .
- Buckets are regional.
- We can create multiple buckets in multiple regions .
- We can't create one bucket inside another bucket .

For cross region replication first create two buckets in two different regions .



> Buckets are nothing but folders in s3.

Step 1 : create two buckets in two different regions .

General configuration

AWS Region

US East (N. Virginia) us-east-1 ▼

Bucket type [Info](#)

☒ **General purpose**

Recommended for most use cases and access patterns. General purpose buckets are the original S3 bucket type. They allow a mix of storage classes that redundantly store objects across multiple Availability Zones.

☐ **Directory - New**

Recommended for low-latency use cases. These buckets use only the S3 Express One Zone storage class, which provides faster processing of data within a single Availability Zone.

Bucket name [Info](#)

mybucket-a

Bucket name must be unique within the global namespace and follow the bucket naming rules. [See rules for bucket naming](#) [↗](#)

Copy settings from existing bucket - *optional*

Only the bucket settings in the following configuration are copied.

[Choose bucket](#)

Format: s3://bucket/prefix

- We have to enable versioning so that we know the current version .
- Versioning is used to differentiate the old one and new one .
- We can also track the changes .

Bucket Versioning

Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. [Learn more](#) [↗](#)

Bucket Versioning

☐ Disable

☒ Enable

General purpose buckets (2) Info					Refresh	Copy ARN	Empty	Delete	Create bucket
Buckets are containers for data stored in S3.									
<input type="text" value="Find buckets by name"/>					< 1 > Settings				
	Name	AWS Region	Access	Creation date					
<input type="radio"/>	crossreplicationbucket-a	US East (N. Virginia) us-east-1	Objects can be public	April 2, 2024, 19:09:49 (UTC+05:30)					
<input type="radio"/>	crossreplicationbucket-b	US East (Ohio) us-east-2	Objects can be public	April 2, 2024, 19:16:47 (UTC+05:30)					

CREATING OBJECTS IN BUCKETS

— create objects in two different regions .

Step 2 : Now create objects in the s3 bucket (cross region replication-a) .

- **Objects are nothing but files in buckets.**
- **Object name must be unique.**
- **Object name must be in 3 to 63 characters and lowercase letters .**

Files and folders (2 Total, 3.8 MB)				Remove	Add files	Add folder
All files and folders in this table will be uploaded.						
<input type="text" value="Find by name"/>				< 1 >		
<input type="checkbox"/>	Name	Folder	Type			
<input type="checkbox"/>	application load balancer.pdf	weekend activities/	application/pdf			
<input type="checkbox"/>	transit gateway.pdf	weekend activities/	application/pdf			

Upload succeeded
View details below.

Summary

Destination s3://crossreplicationbucket-a	Succeeded 2 files, 3.8 MB (100.00%)	Failed 0 files, 0 B (0%)
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Files and folders

Configuration

Files and folders (2 Total, 3.8 MB)

< 1 >

Name	Folder	Type	Size	Status	Error
application l...	weekend ac...	application/...	1.2 MB	Succeeded	-
transit gate...	weekend ac...	application/...	2.5 MB	Succeeded	-

We have created two objects in one bucket .

>> now transform one object in a bucket to another bucket ,for that we use cross region replication .

CROSS REGION REPLICATION

- In cross region replication we replicate an object from a bucket in one region to another bucket in another region .
- If we delete the same replicated object in one region it is not deleted in another region .

– select the object that you want to replicate and go to actions and click on move, there give the destination bucket name .

✔ Successfully moved objects

View details below. To view successfully moved objects, go to the [specified destination](#).

Summary

Source

s3://crossreplicationbucket-a

Successfully moved

✔ 2 objects, 3.8 MB

Failed to move

0 objects

Failed to move

Configuration

⊗ Failed to move (0)

Find objects by name

Name

▲

Folder

▼

Type

▼

Last modified

▼

Size

Successfully replicated the object to another bucket in another region .

Amazon S3 > Buckets > crossreplicationbucket-b

crossreplicationbucket-b [Info](#)

Objects

Properties

Permissions

Metrics

Management

Access Points

Objects (1) [Info](#)

↻

Copy S3 URI

Copy URL

Download

Open

Delete

Actions

Create folder

Upload

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Find objects by prefix

Show versions

< 1 > ⚙

☐

Name

▲

Type

▼

Last modified

▼

Size

▼

Storage class

▼

☐

📁 weekend activities/

Folder

-

-

-

We can see the replicated object in another bucket in other region successfully .

https://docs.google.com/document/d/1byleyxs8i0kGS6_Dz1yZ5U3e3SsOhjVK5VaBGqSx7Bg/edit

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