

CROSS REGION REPLICATION

➤ PURPOSE:

Cross region replication of S3 buckets is done to increase data durability and availability. It allows users to automatically copy objects across buckets in different AWS regions. This can help reduce latency, comply with regulatory requirements, and provide backup in case of disasters.

➤ PROCEDURE:

- Create two S3 buckets and enable versioning on both of them.
- Bucket 1

S3 bucket

Amazon S3 - Cross Region Replic...

s3.console.aws.amazon.com/s3/bucket/create?region=us-east-1

aws Services Search [Alt+S]

Amazon S3 > Buckets > Create bucket

Create bucket [Info](#)

Buckets are containers for data stored in S3. [Learn more](#)

General configuration

Bucket name

Regina1

Bucket name must be globally unique and must not contain spaces or uppercase letters. [See rules for bucket naming](#)

AWS Region

US East (N. Virginia) us-east-1

Copy settings from existing bucket - *optional*
Only the bucket settings in the following configuration are copied.

[Choose bucket](#)

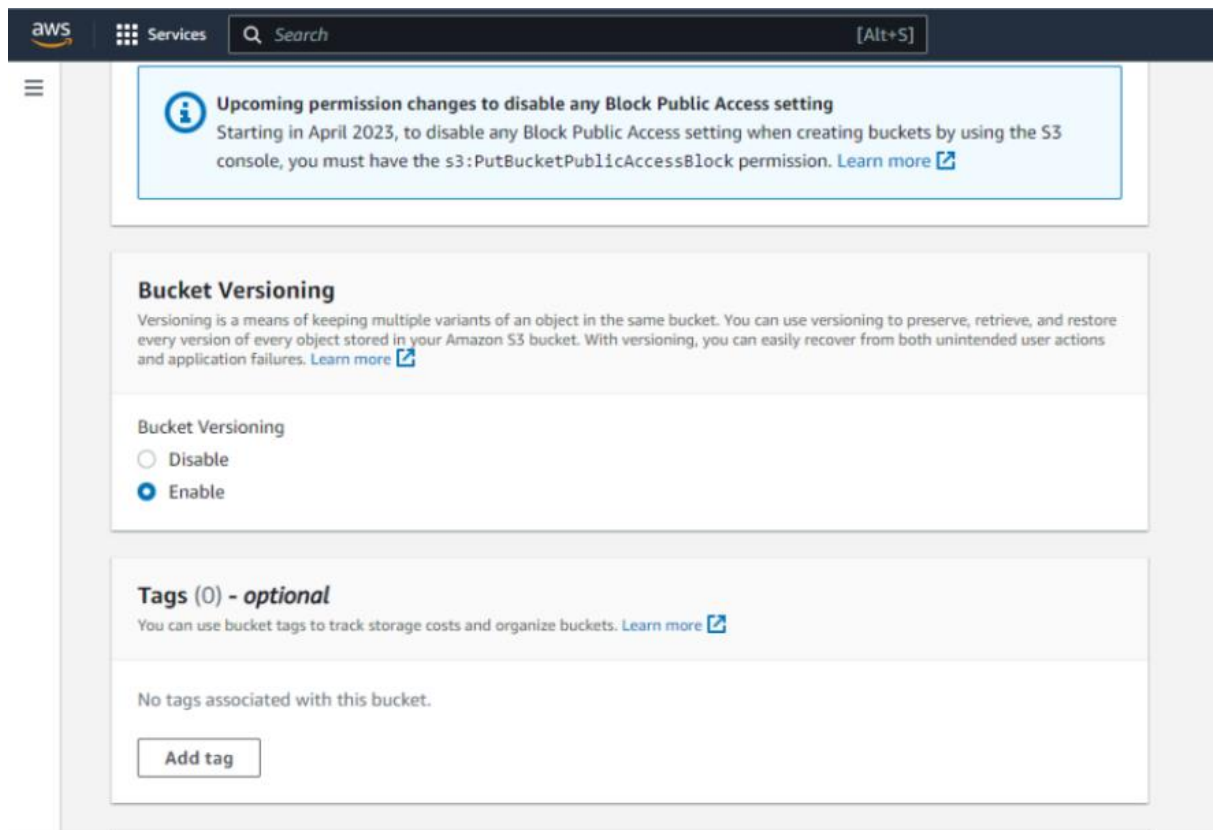
Object Ownership [Info](#)

Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

Feedback Language

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- Enabling Bucket versioning



- Similarly create Bucket 2 and enable Bucket versioning.

S3 bucket

Amazon S3 - Cross Region Replic

s3.console.aws.amazon.com/s3/bucket/create?region=us-east-1

Services Search [Alt+S]

Buckets are containers for data stored in S3. [Learn more](#)

General configuration

Bucket name

Regina23

Bucket name must be globally unique and must not contain spaces or uppercase letters. [See rules for bucket naming](#)

AWS Region

US East (N. Virginia) us-east-1

Copy settings from existing bucket - *optional*

Only the bucket settings in the following configuration are copied.

Choose bucket

Object Ownership [Info](#)

Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

- Click on your first bucket and head over to the management tab

Amazon S3 > Buckets > regina1

regina1

Objects | Properties | Permissions | Metrics | **Management** | Access Points

Lifecycle rules (0)

Use lifecycle rules to define actions you want Amazon S3 to take during an object's lifetime such as transitioning objects to another storage class, archiving them, or deleting them after a specified period of time. [Learn more](#)

View details Edit Delete Actions Create lifecycle rule

Lifecycle rule name	Status	Scope	Current version actions	Noncurrent versions actions	Expired object delete markers	Incomplete multipart uploads
No lifecycle rules						
There are no lifecycle rules for this bucket.						
Create lifecycle rule						

Activate Windows
Go to Settings to activate Windows.

- Click on “Create a replication rule” and give your replication rule a name as replicate23

Amazon S3 > Buckets > regina1 > Replication rules > Create replication rule

Create replication rule

Replication rule configuration

Replication rule name

Up to 255 characters. In order to be able to use CloudWatch metrics to monitor the progress of your replication rule, the replication rule name must only contain English characters.

Status

Choose whether the rule will be enabled or disabled when created.

☒ Enabled

☐ Disabled

Priority

The priority value resolves conflicts that occur when an object is eligible for replication under multiple rules to the same destination. The rule is added to the configuration at the highest priority and the priority can be changed on the replication rules table.

1

Source bucket

- Choose the second bucket as destination bucket the bucket in which we want to replicate data that is “regina23”

Destination

Destination

You can replicate objects across buckets in different AWS Regions (Cross-Region Replication) or you can replicate objects across buckets in the same AWS Region (Same-Region Replication). You can also specify a different bucket for each rule in the configuration. [Learn more](#)

☒ Choose a bucket in this account

☐ Specify a bucket in another account

Bucket name

Choose the bucket that will receive replicated objects.

[Browse S3](#)

Destination Region

US East (Ohio) us-east-2

IAM role

The selected IAM role applies to all rules in the bucket. To change the IAM role for all rules in the bucket, edit the Replication configuration settings.

- To replicate objects from the source bucket to the destination bucket, you need to create an IAM role. So create one by clicking on “create a new role”.

IAM role

☒ Choose from existing IAM roles
☐ Enter IAM role ARN

IAM role

Create new role ▲

Q |

Create new role

AWSServiceRoleForSupport

AWSServiceRoleForTrustedAdvisor

☐ Replicate objects encrypted with AWS KMS
 You can use replication for AWS Key Management Service encrypted objects to replicate data encrypted using AWS KMS across AWS Regions.

- Click on save, a screen will pop up asking if you want to replicate existing objects in the S3 bucket. But that will incur charges so it is up to individual choice, I will proceed without replicating existing objects and click on submit.
- Upload the data in source bucket that is in first bucket: regina1

Amazon S3 > Buckets > regina1

regina1 [Info](#)

[Objects](#) | [Properties](#) | [Permissions](#) | [Metrics](#) | [Management](#) | [Access Points](#)

Objects (1)

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](#)

☐ Show versions
 < 1 >

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	index.html	html	February 6, 2023, 12:38:25 (UTC+05:30)	222.0 B	Standard

Activate Windows
Go to Settings to activate Windows.

- Now head over to your destination bucket: regina23 to check if the uploaded file is replicated to our destination bucket. You can see that our uploaded file is successfully copied to the destination bucket.

