

S3 Lifecycle Rules

The S3 lifecycle allows you to manage your bucket objects so that they can be stored cost effectively throughout their lifecycle.

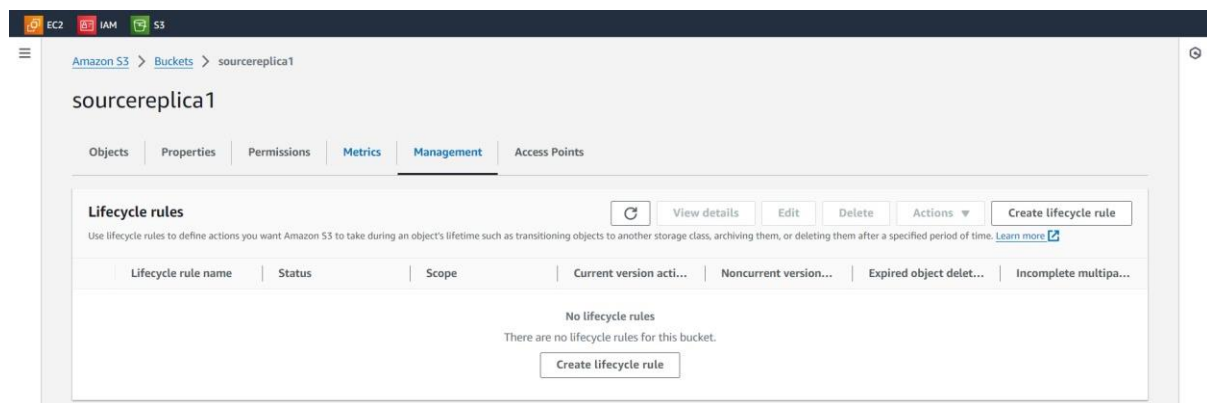
Lifecycle is a set of rules that define actions should be taken on the objects like transition and deletion over the period of time based on criteria such as storage class and age.

There are two type of actions:

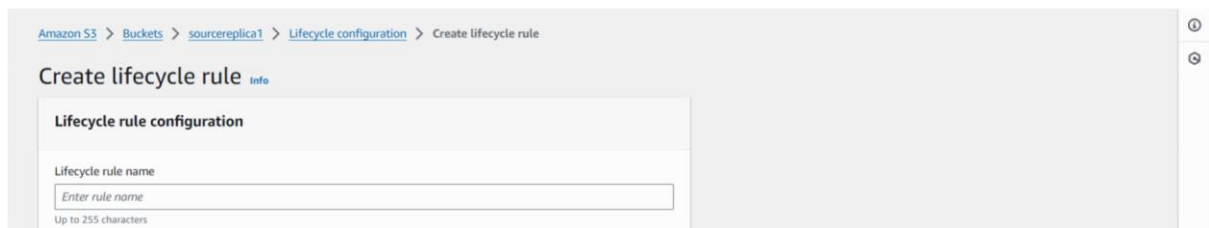
- 1) Transition actions:** These actions define when the objects transition to another storage class (For e.g. Standard class transition to Intelligent Tiering).
- 2) Expiration actions:** These actions define when the objects expire. S3 service deletes the expired objects on behalf of you.

Steps to creating lifecycle configurations are given below:

1. Go the management section of bucket and under this section appears lifecycle rules.



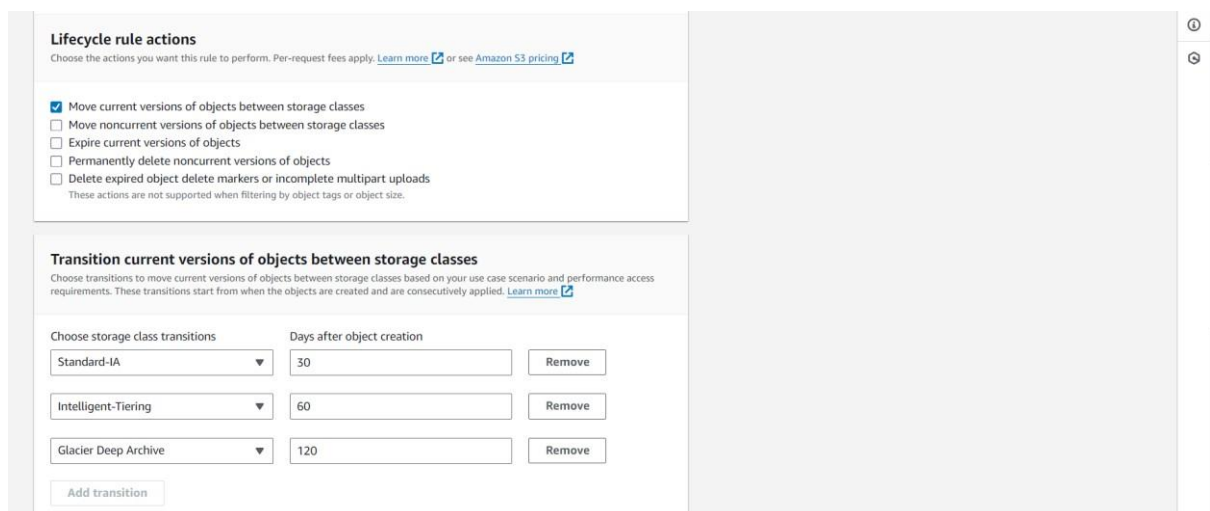
2. Click on “Create lifecycle rule”. Now there are various options, first name the lifecycle.



3. Now choose the lifecycle actions you want to perform.



4. Choose transition of objects between storage classes by specifying type of storage and transition after number of days.



5. Then there is also option to move noncurrent objects between transition classes. Noncurrent objects are referred to the old versions of the objects. The old versions will be transitioned between classes.

The screenshot shows the 'Transition noncurrent versions of objects between storage classes' configuration page. It features a table with four rows, each representing a different storage class transition. The columns are: 'Choose storage class transitions' (a dropdown menu), 'Days after objects become noncurrent' (a text input field), 'Number of newer versions to retain - Optional' (a text input field with a placeholder 'Number of versions'), and a 'Remove' button. The rows are: Standard-IA (10 days), Intelligent-Tiering (20 days), One Zone-IA (30 days), and Glacier Deep Archive (60 days). Below the table is an 'Add transition' button. A 'Learn more' link is also present at the top of the configuration area.

Choose storage class transitions	Days after objects become noncurrent	Number of newer versions to retain - Optional	
Standard-IA	10	Number of versions	Remove
Intelligent-Tiering	20	Number of versions	Remove
One Zone-IA	30	Number of versions	Remove
Glacier Deep Archive	60	Number of versions	Remove

Add transition

6. Next option is to “Expire current versions of the objects”.
- In version-enabled buckets, delete marker is added to the object that deletes the object, so basically it expires and after the specific days of expiration it gets deleted.
- But in non-versioned buckets S3 permanently deletes the object.
- Enter the number of days of expiration of current object:

The screenshot shows the 'Expire current versions of objects' configuration page. It includes a text input field labeled 'Days after object creation' with the value '20'. Below the input field, a note states: 'The integer value must be greater than 120.' A 'Learn more' link is also present at the top of the configuration area.

Days after object creation

20

The integer value must be greater than 120.

In this case after 121 days the current version of object will expire and delete marker will be added.

7. Next is to add number of days for “Permanently delete noncurrent versions of objects”. In this section the older versions of the object will be deleted permanently.

So we transitioned the noncurrent objects in the deep glacier class in step 5. These objects goes into deep glacier class after 151 days. Hence we need to give value greater than 151.

Permanently delete noncurrent versions of objects
Choose when Amazon S3 permanently deletes specified noncurrent versions of objects. [Learn more](#)

Days after objects become noncurrent:

Number of newer versions to retain - Optional:
Can be up to 100 versions. All other noncurrent versions will be moved.

8. This is last action provided by S3, which gives us an option to remove delete markers of the expired object and delete incomplete multipart uploads.

Delete expired object delete markers or incomplete multipart uploads

Expired object delete markers
This action will remove expired object delete markers and may improve performance. An expired object delete marker is removed if all noncurrent versions of an object expire after deleting a versioned object. This action is not available when "Expire current versions of objects" is selected. [Learn more](#)

☒ Delete expired object delete markers

You cannot enable Delete expired object delete markers if you enable Expire current versions of objects.

Incomplete multipart uploads
This action will stop all incomplete multipart uploads, and the parts associated with the multipart upload will be deleted. [Learn more](#)

☐ Delete incomplete multipart uploads

9. Last step is to review the actions taken and create the rule.

Lifecycle configuration Info

To manage your objects so that they are stored cost effectively throughout their lifecycle, configure their lifecycle. A lifecycle configuration is a set of rules that define actions that Amazon S3 applies to a group of objects. Lifecycle rules run once per day.

Lifecycle rules (1) View details Edit Delete Actions Create lifecycle rule

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](#)

Lifecycle rule name	Status	Scope	Current version a...	Noncurrent versio...	Expired object deL...	Incomplete multi...
sourcereplica1-lifecycle	Enabled	Filtered	Transition to Standard-IA,	Transition to Standard-IA,	-	-

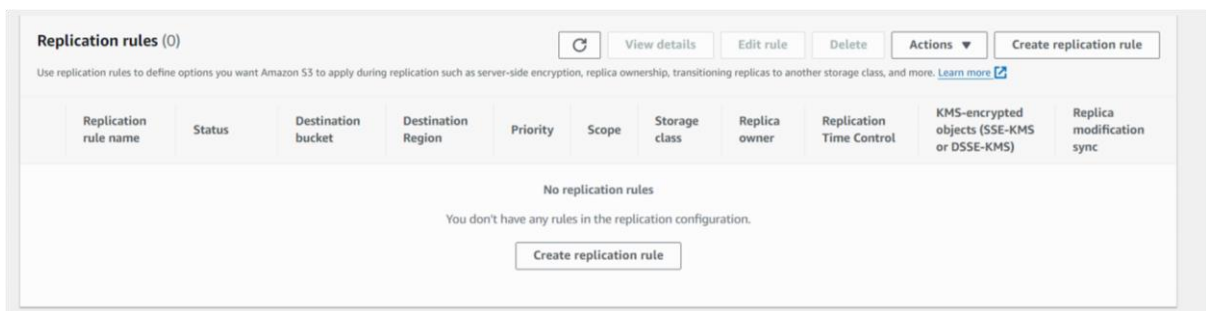
S3 Replication rules

Replication rules defines how the objects in one bucket are automatically replicated to another destination bucket. This destination buckets can be in your own aws account or different aws account.

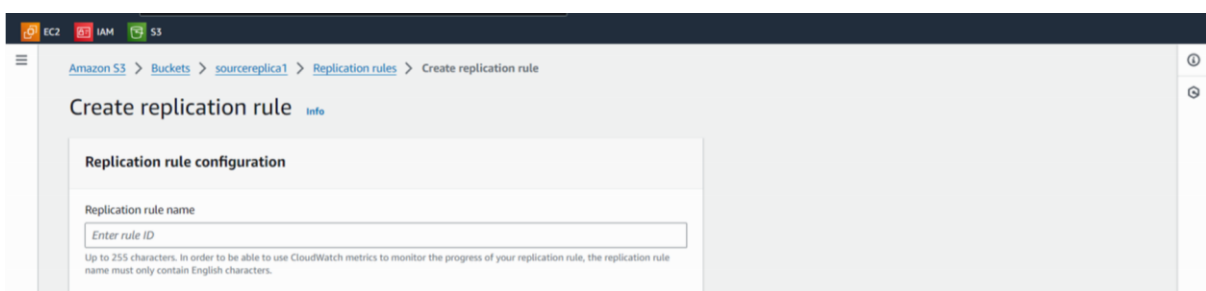
This replication is useful in case of disaster, data recovery or availability across different regions and availability zones.

Follow above steps to create replication rules:

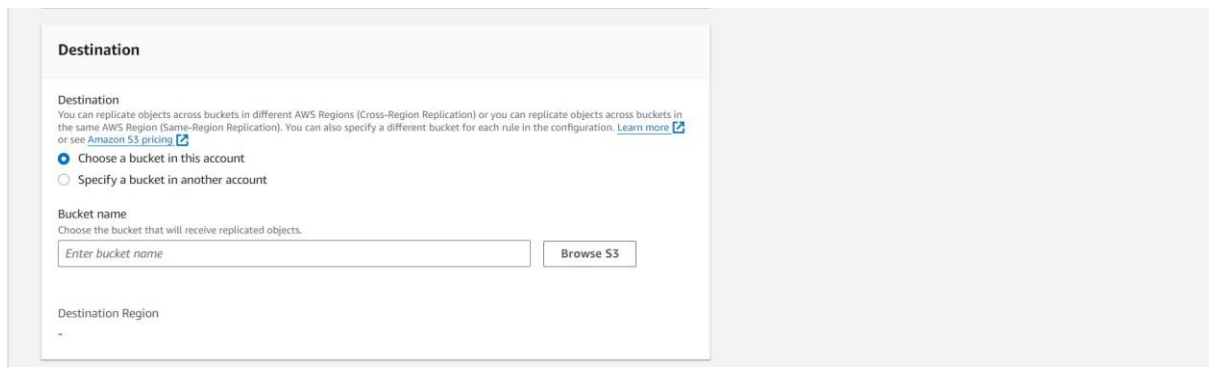
1. Under management section of bucket click on create replication rule.



2. Give the name for replication rule.



3. Choose and enter the destination bucket information.



Destination

Destination

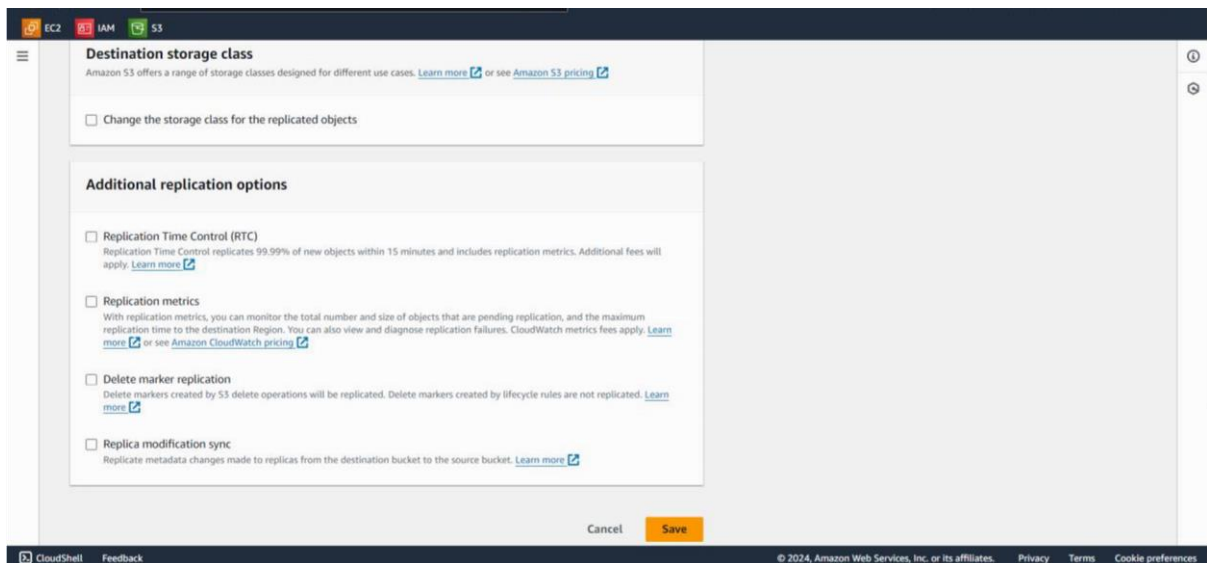
You can replicate objects across buckets in different AWS Regions (Cross-Region Replication) or you can replicate objects across buckets in the same AWS Region (Same-Region Replication). You can also specify a different bucket for each rule in the configuration. [Learn more](#)

☒ Choose a bucket in this account
☐ Specify a bucket in another account

Bucket name
Choose the bucket that will receive replicated objects.

Destination Region
-

4. There are various options for replicating like change storage class for replicated objects, additional replication info, etc. Finally click on save.



Destination storage class

Amazon S3 offers a range of storage classes designed for different use cases. [Learn more](#) or see [Amazon S3 pricing](#)

☐ Change the storage class for the replicated objects

Additional replication options

☐ **Replication Time Control (RTC)**
Replication Time Control replicates 99.99% of new objects within 15 minutes and includes replication metrics. Additional fees will apply. [Learn more](#)

☐ **Replication metrics**
With replication metrics, you can monitor the total number and size of objects that are pending replication, and the maximum replication time to the destination Region. You can also view and diagnose replication failures. CloudWatch metrics fees apply. [Learn more](#) or see [Amazon CloudWatch pricing](#)

☐ **Delete marker replication**
Delete markers created by S3 delete operations will be replicated. Delete markers created by lifecycle rules are not replicated. [Learn more](#)

☐ **Replica modification sync**
Replicate metadata changes made to replicas from the destination bucket to the source bucket. [Learn more](#)

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5. Prompt will open asking “Replicate existing objects”. Choose as per your need. Then click on submit.

Replicate existing objects?

×

You can enable a one-time Batch Operations job from this replication configuration to replicate objects that already exist in the bucket and to synchronize the source and destination buckets. [Learn more](#) or [see pricing](#)

Existing objects

☐ No, do not replicate existing objects.

☒ Yes, replicate existing objects.

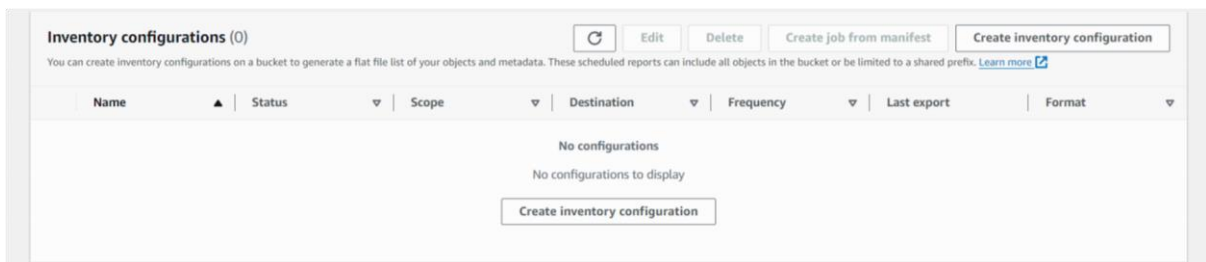
Cancel

Submit

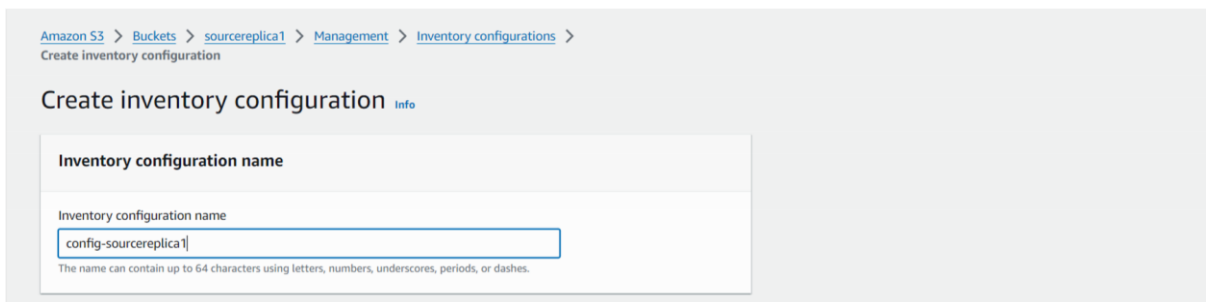
Inventory Configurations

This section provide you scheduled reports about the objects or be limited to prefix. This reports contains metadata of objects and list of objects.

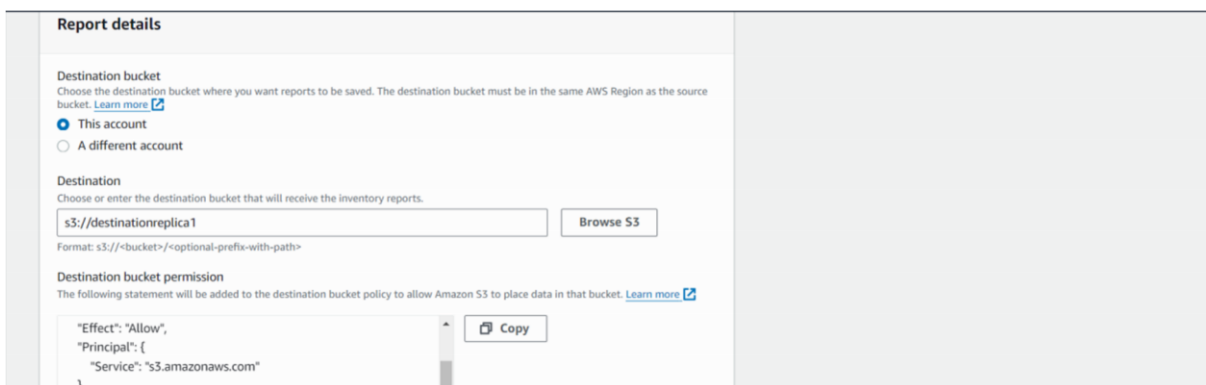
1. To create configuration, click on create inventory configuration option under management section of bucket.



2. Enter the name of inventory configuration file.



3. Now choose the report details i.e. destination bucket, destination bucket permissions, frequency of report generation, report file format.



4. Finally select the metadata you want to include in report, this step is optional.

The screenshot shows the 'Additional metadata fields - optional' configuration page in the AWS S3 console. The page is divided into two main sections: a left sidebar with a list of metadata categories and their sub-items, and a large right-hand area for selecting specific fields. The left sidebar is titled 'Additional metadata fields - optional' and includes a link to 'Learn more'. It lists several categories with checkboxes for selection:

- Object**
 - ☒ Size
 - ☒ Last modified
 - ☐ Multipart upload
 - ☒ Replication status
 - ☐ Encryption
 - ☐ Bucket key status
- Permissions**
 - ☐ Object ACL
 - ☒ Object owner
- Storage class**
 - ☒ Storage class
 - ☐ Intelligent-Tiering: Access tier
- Data integrity**
 - ☐ ETag
 - ☐ Additional checksums function
- Object Lock**
 - ☐ All Object Lock configurations
 - ☐ Object Lock: Retention mode
 - ☐ Object Lock: Retain until date

The right-hand area is currently empty, indicating that no specific metadata fields have been selected yet.

5. Click on create and the inventory configuration will be created.....