

## S3 Lifecycle Rules

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

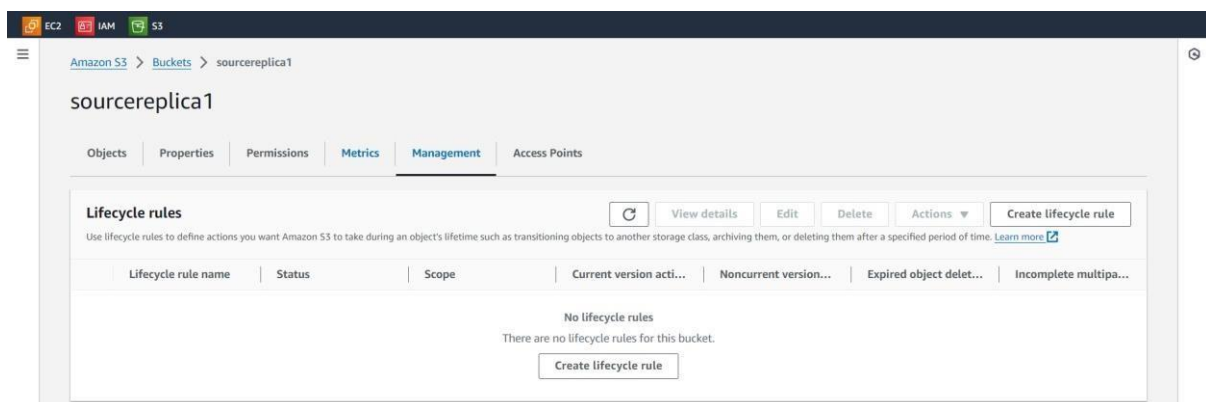
Lifecycle is a set of rules that define actions should be taken on the objects like transition and deletion over the period of time based on criteria such as storage class and age.

There are two type of actions:

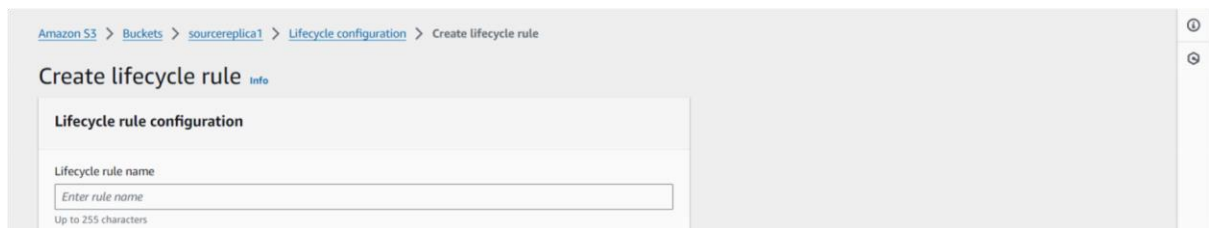
- 1) Transition actions:** These actions define when the objects transition to another storage class (For e.g. Standard class transition to Intelligent Tiering).
- 2) Expiration actions:** These actions define when the objects expire. S3 service deletes the expired objects on behalf of you.

Steps to creating lifecycle configurations are given below:

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



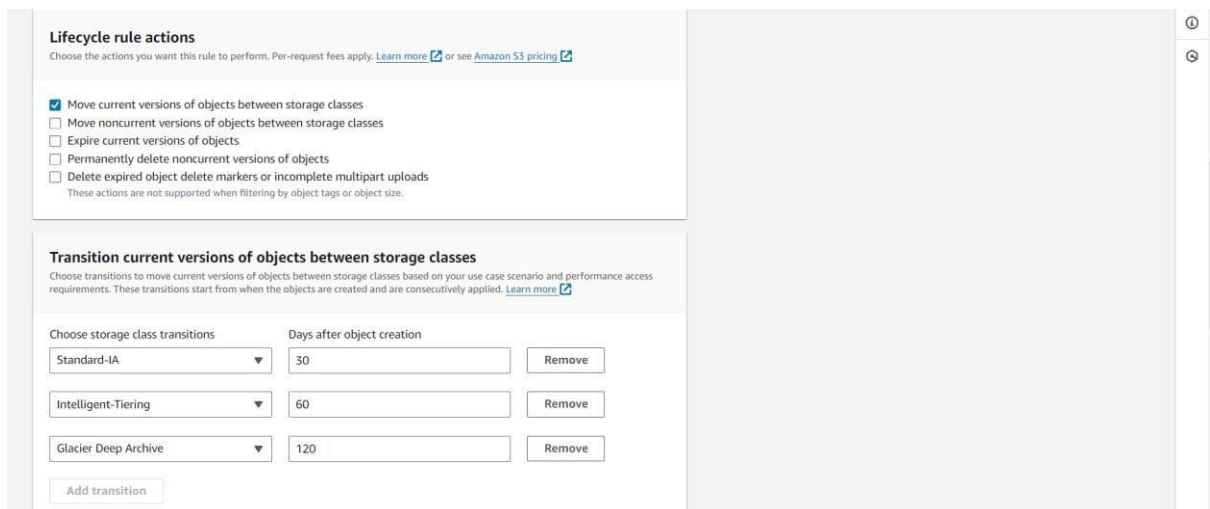
2. Click on “Create lifecycle rule”. Now there are various options, first name the lifecycle.



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 includes a title, a descriptive paragraph, and a table with four columns: 'Choose storage class transitions', 'Days after objects become noncurrent', 'Number of newer versions to retain - Optional', and 'Remove'. The table lists four storage classes: Standard-IA, Intelligent-Tiering, One Zone-IA, and Glacier Deep Archive, each with a corresponding number of days and a 'Number of versions' field. An 'Add transition' button is at the bottom left.

Choose storage class transitions	Days after objects become noncurrent	Number of newer versions to retain - Optional	Remove
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

[Learn more](#)

[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 title, a descriptive paragraph, and a single input field for 'Days after object creation'. The input field contains the value '20'. A note below the field states: 'The integer value must be greater than 120.'

[Learn more](#)

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.

The screenshot shows the 'Permanently delete noncurrent versions of objects' configuration screen. It has two input fields: 'Days after objects become noncurrent' with a value of 61, and 'Number of newer versions to retain - Optional' with a value of 100. Below the second field, a note states: '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.

The screenshot shows the 'Delete expired object delete markers or incomplete multipart uploads' configuration screen. It has two sections: 'Expired object delete markers' with a checkbox 'Delete expired object delete markers' and a warning message 'You cannot enable Delete expired object delete markers if you enable Expire current versions of objects.'; and 'Incomplete multipart uploads' with a checkbox 'Delete incomplete multipart uploads'.

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

The screenshot shows the 'Lifecycle configuration' page for a bucket named 'sourcereplica1'. A green notification bar at the top states: 'The lifecycle configuration was updated. Lifecycle rule "sourcereplica1-lifecycle" was successfully added. It may take some time for the configuration to be updated. Press the refresh button if changes to the rule are not displayed.' The page shows a table of lifecycle rules with one rule named 'sourcereplica1-lifecycle' in an 'Enabled' status. The table has columns for Lifecycle rule name, Status, Scope, Current version a..., Noncurrent versio..., Expired object del..., and Incomplete multi....

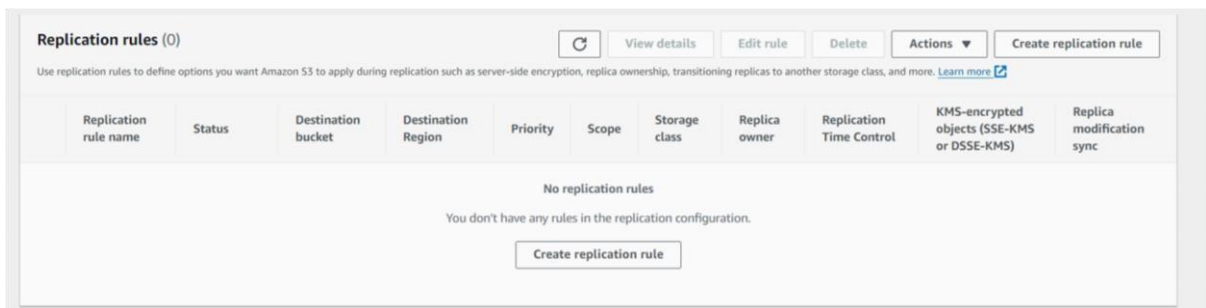
## S3 Replication rules

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.

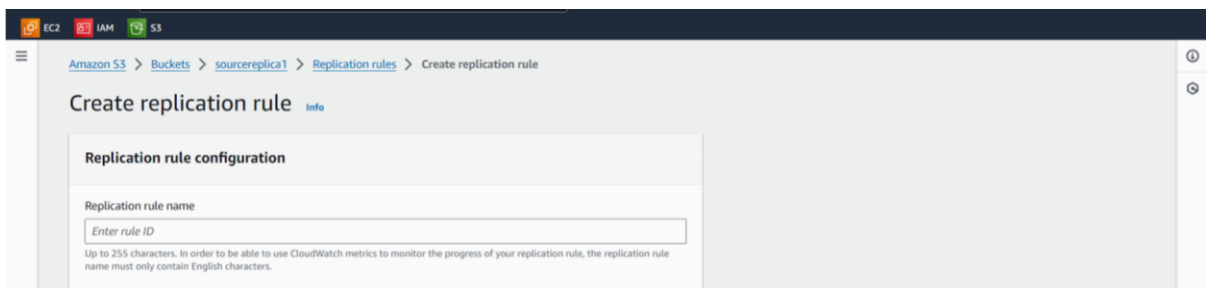
This replication is useful in case of disaster, data recovery or availability across different regions and availability zones.

Follow above steps to create replication rules:

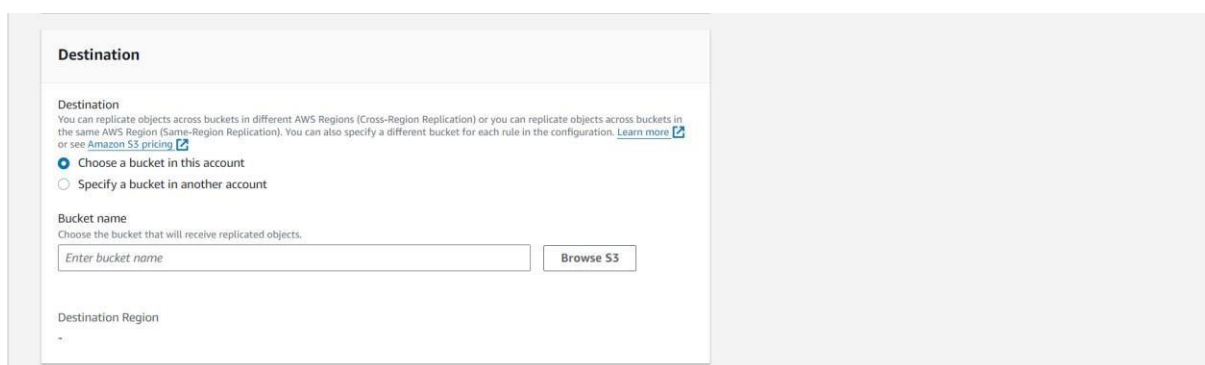
1. Under management section of bucket click on create replication rule.



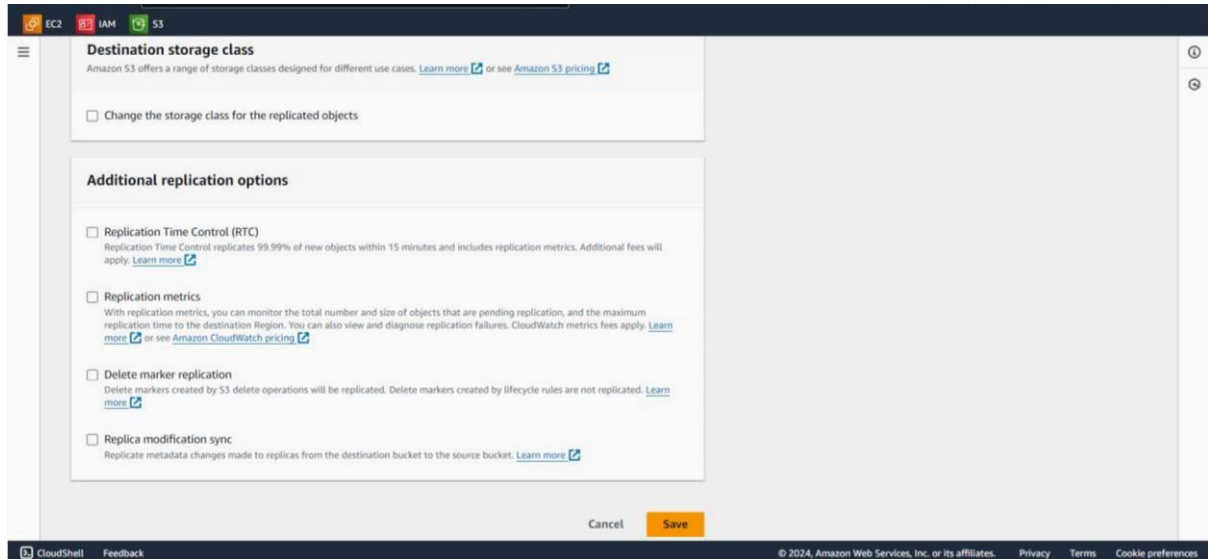
2. Give the name for replication rule.



3. Choose and enter the destination bucket information.

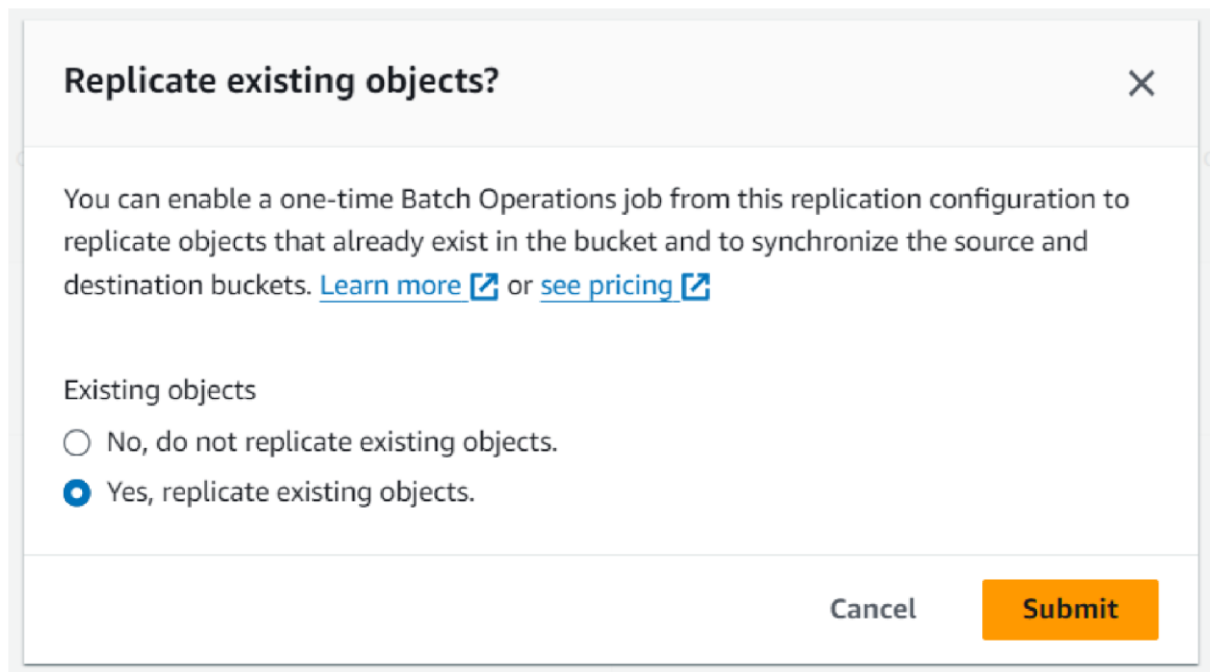


4. There are various options for replicating like change storage class for replicated objects, additional replication info, etc. Finally click on save.



The screenshot shows the 'Replicate to' configuration page in the Amazon S3 console. The page has a dark header with 'EC2', 'IAM', and 'S3' icons. The main content area is divided into two sections. The first section, 'Destination storage class', has a sub-header 'Amazon S3 offers a range of storage classes designed for different use cases. [Learn more](#) or see [Amazon S3 pricing](#)'. Below this is a checkbox labeled 'Change the storage class for the replicated objects'. The second section, 'Additional replication options', contains four checkboxes: 'Replication Time Control (RTC)' (with a description and a 'Learn more' link), 'Replication metrics' (with a description and a 'Learn more' link), 'Delete marker replication' (with a description and a 'Learn more' link), and 'Replica modification sync' (with a description and a 'Learn more' link'). At the bottom of the configuration area are 'Cancel' and 'Save' buttons. The footer of the console shows 'CloudShell', 'Feedback', and copyright information for Amazon Web Services, Inc. or its affiliates, along with links for 'Privacy', 'Terms', and 'Cookie preferences'.

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

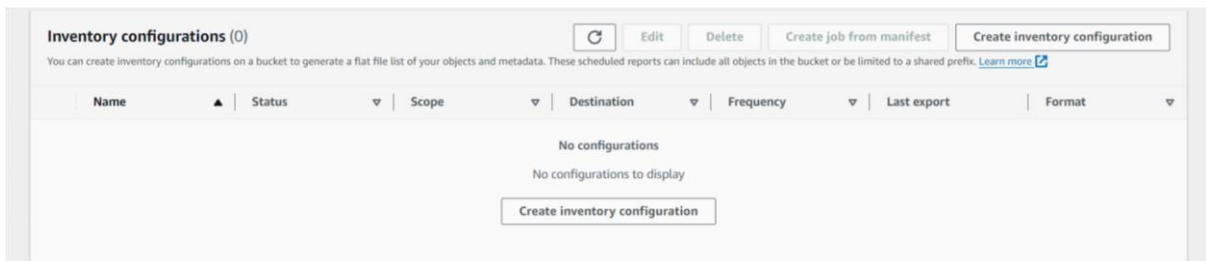


The screenshot shows a modal dialog titled 'Replicate existing objects?' with a close button (X) in the top right corner. The dialog contains the following text: 'You can enable a one-time Batch Operations job from this replication configuration to replicate objects that already exist in the bucket and to synchronize the source and destination buckets. [Learn more](#) or [see pricing](#)'. Below this text is a section titled 'Existing objects' with two radio button options: 'No, do not replicate existing objects.' and 'Yes, replicate existing objects.' The 'Yes' option is selected. At the bottom right of the dialog are 'Cancel' and 'Submit' buttons.

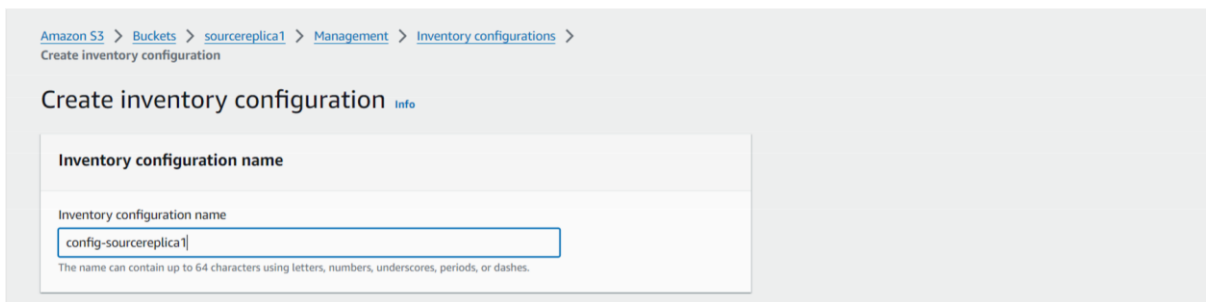
# Inventory Configurations

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

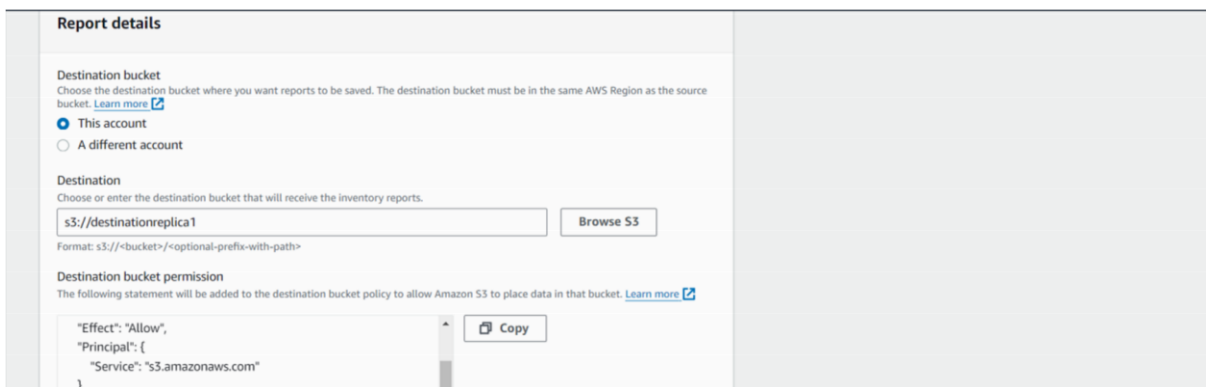
1. To create configuration, click on create inventory configuration option under management section of bucket.



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 a configuration panel titled "Additional metadata fields - optional" with a subtitle "Choose the metadata that should be included for each listed object in the report. [Learn more](#)". The panel is divided into two columns. The left column contains several sections of metadata fields, each with a list of checkboxes. The right column is empty.

- 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: Legal hold

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