
Amazon Simple Storage Service

Console User Guide

API Version 2006-03-01



Amazon Simple Storage Service: Console User Guide

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Welcome to Amazon S3

This is the *Amazon Simple Storage Service Console User Guide*.

The Amazon S3 console is one of the interfaces available to help you work with Amazon S3. The console enables you to perform Amazon S3 tasks without writing any code. This section first introduces Amazon S3 resources and operations and then explains how the console is logically organized to support these operations. The section also introduces console-specific concepts such as folders, properties, and other features that help you easily upload files and folders, move objects around, and manage objects by creating folders. We recommend that you read the following sections:

- [About Amazon S3 Resources and Operations \(p. 1\)](#)
- [About the Amazon S3 Console \(p. 2\)](#)
- [About the Amazon S3 Documentation \(p. 7\)](#)

For information on Amazon S3 features, pricing, and to see the FAQ, go to the [Amazon S3 product page](#).

About Amazon S3 Resources and Operations

Amazon S3 is storage for the Internet. You can think of Amazon S3 as a collection of resources and operations. Buckets and objects are the primary resources. Amazon S3 provides APIs for you to create buckets and upload objects. In addition, there are other resources, many of which store bucket and object specific configuration information. These are referred to as subresources. For example, the following are some of the bucket subresources:

- *lifecycle* – You can define lifecycle configuration rules for objects that have a well-defined lifecycle. For example, archive objects one year after creation, or delete an object 10 years after creation. The *lifecycle* subresource stores the lifecycle configuration rules. For more information, go to [Object Lifecycle Management](#).
- *website* – You can host a static website on Amazon S3. To host your static website, you configure your bucket for website hosting. The *website* subresource stores the website configuration information. For more information, go to [Hosting a Static Website on Amazon S3](#).
- *versioning* – Versioning provides protection from accidental overwrites and deletes. We recommend versioning as a best practice to prevent objects from being deleted or overwritten by mistake. The

versioning subresource stores versioning configuration information. For more information, go to [Using Versioning](#).

- *policy* and *ACL* (access control list) – These subresources store access permission information. By default, all your resources are private. You as the resource owner must grant permissions for others to access these resources. For more information, see [Resource Owner \(p. 2\)](#).

There are also subresources associated with objects. For example, Amazon S3 provides an *ACL* subresource that helps you manage object-level permissions.

Resource Owner

By default, all Amazon S3 resources are private. Only a resource owner can access the resource. The resource owner refers to the AWS account that creates the resource. The resource owner can optionally grant others permission to access the resources. These can be other AWS accounts, IAM users in an AWS account, or applications that get permissions via the IAM roles. For information about AWS accounts and IAM users, see [What is IAM?](#) in the *IAM User Guide*. For more information about permissions, see [Managing Access Permissions to Your Amazon S3 Resources](#) in the *Amazon Simple Storage Service Developer Guide*.

Resource Operations

To help you work with buckets, objects, and related subresources, Amazon S3 provides a set of operations. You have the following options to work with Amazon S3:

- Use the Amazon S3 console to perform operations without writing any code.
- Use the AWS SDKs that provide wrapper libraries for Java, .NET, Python, PHP, and other languages. For more information about the available SDKs, see [Sample Code and Libraries](#).
- Use the AWS Command Line Interface (CLI) to manage Amazon S3 objects by using a command line user interface. For more information about the AWS CLI, go to [AWS Command Line Interface](#).
- Both the console and the AWS SDK libraries internally make the Amazon S3 REST API call described in the API reference. If you need to, you can also write code to make the REST API calls directly from your application.

For a list of Amazon S3 operations go to, [Operations on Buckets](#) and [Operations on Objects](#) in the *Amazon Simple Storage Service API Reference*.

About the Amazon S3 Console

Using the Amazon S3 console, you can create and manage the resources discussed in the preceding section. The console supports additional features that are not natively supported by Amazon S3 (for example, the concept of folders). These additional features are designed to help you manage your resources. Some of the console highlights discussed in this section are:

- Support for viewing data
- Support for properties
- Support for folders

Note

The Amazon S3 data model does not natively support the concept of folders, nor does it provide any APIs for folder-level operations. But the Amazon S3 console supports folders to help you organize your data.

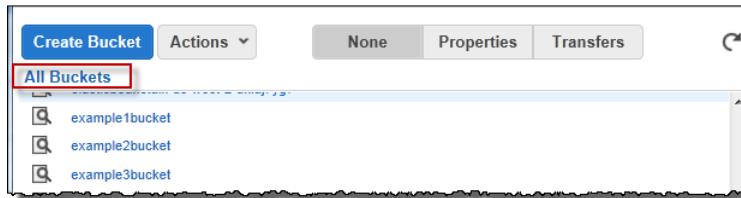
- Support for moving data around
- Visibility into object properties
- Ability to act on groups of data
- Intuitive UI that abstracts the underlying API calls
- Easy to switch to other consoles that are part of the AWS Management Console

Note

You might want to sign in to the Amazon S3 console at <https://console.aws.amazon.com/s3/> as you read the remainder of this section. Your Session Credentials will keep you logged into the AWS Management Console for approximately twelve hours.

Support for Viewing Data

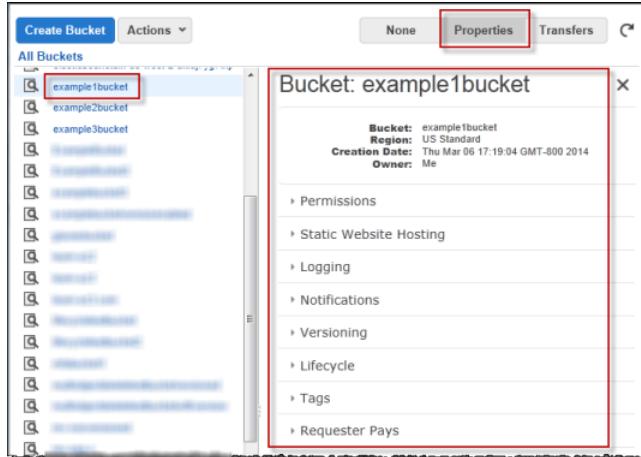
The Amazon S3 console provides a view of your Amazon S3 data. It lists your buckets and the objects in each bucket. When you create a bucket you specify an AWS region where you want the bucket to reside. Amazon S3 bucket names are globally unique and the console lists all buckets, regardless of the region in which the bucket is stored. So the Amazon S3 console does not require any region selection to list buckets and objects.



Support for Properties

The console supports the concept of properties. Using the properties abstraction, the Amazon S3 console shows the metadata and subresources associated with the primary resource (bucket or object).

If you click on a bucket name and then click **Properties**, you will get a list of bucket properties. These properties include bucket subresources, described in the preceding section, and metadata information such as resource name, creation date, and owner.



If you click on an object name and then click **Properties**, the console displays a list of object properties.

The screenshot shows the Amazon S3 console interface. At the top, there are tabs for 'Upload', 'Create Folder', 'Actions', 'None' (highlighted with a red box), 'Properties' (also highlighted with a red box), and 'Transfers'. Below this, the 'All Buckets / example1bucket' path is selected. A table lists objects: HappyFace.jpg (Standard, 3.1 KB), HappyFace1.jpg (Standard, 3.1 KB), HappyFace2.jpg (Standard, 3.1 KB), folderA (.., ..), and folderB (.., ..). On the right, a modal window titled 'Object: HappyFace1.jpg' displays detailed information about the object. A red box highlights the 'Link' property value: 'http://s3.amazonaws.com/example1bucket/HappyFace1.jpg'. Other properties shown include Bucket: example1bucket, Name: HappyFace1.jpg, Last Modified: Sun Feb 16 13:39:59 GMT-800 2014, Owner: Me, ETag: 00000000000000000000000000000000, Expiry Date: N/A, and Expiration Rule: N/A.

The **Link** property shows the object URL, a valid resource address. But the URL does not contain authentication information. If you click the link Amazon S3 will deny access to the object unless you make the object public (by default all objects are private). For information about downloading, see [Downloading an Object \(p. 65\)](#).

Support for Folders

The concept of folders is unique to the console. Amazon S3 uses buckets and objects, but the service does not natively support folders, nor does it provide any API to work with folders.

To help you organize your data, however, the Amazon S3 console supports the concept of folders. You can create folders to group your objects. The following screenshot shows a bucket (examplebucket) that contains two folders, folderA and folderB.

The screenshot shows the Amazon S3 console interface. At the top, there are tabs for 'Upload', 'Create Folder', 'Actions', 'None' (highlighted with a red box), 'Properties' (highlighted with a red box), and 'Transfers'. Below this, the 'All Buckets / example1bucket' path is selected. A table lists objects: HappyFace.jpg (Standard, 3.1 KB), HappyFace1.jpg (Standard, 3.1 KB), HappyFace2.jpg (Standard, 3.1 KB), folderA (.., ..), and folderB (.., ..).

Important

In Amazon S3, you create buckets and store objects. The service does not support any hierarchy that you see in a typical file system.

The console uses the object key names to derive the folder hierarchy. It uses the "/" character in the key name to infer hierarchy, as the following examples show:

- If you have three objects—logs/date1.txt, logs/date2.txt, and logs/date3.txt—the console shows a folder named logs. If you open the folder, you see three objects: date1.txt, date2.txt, and date3.txt.

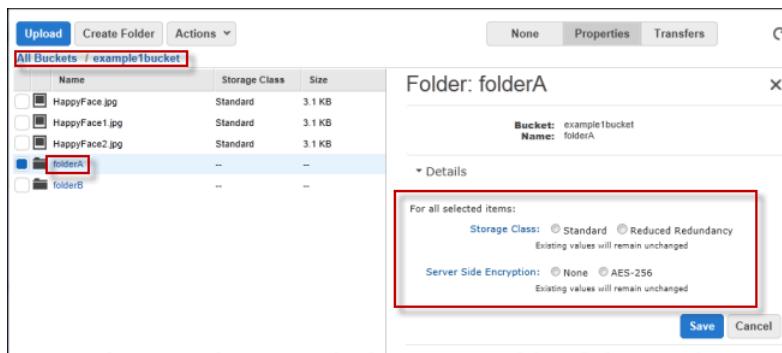
The screenshot shows the Amazon S3 console interface. At the top, there are tabs for 'Upload', 'Create Folder', 'Actions', 'None' (highlighted with a red box), 'Properties' (highlighted with a red box), and 'Transfers'. Below this, the 'All Buckets / example1bucket / logs' path is selected. A table lists objects: date1.txt (Standard, 6 bytes), date2.txt (Standard, 6 bytes), and date3.txt (Standard, 6 bytes).

- You can nest folders in the console. For example, if you have an object named photos/2013/example.jpg, the console shows you a folder named photos containing the folder 2013, and the folder 2013 contains the object example.jpg.



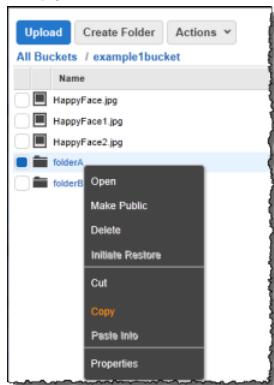
- If you upload an object with key name `myPhoto.jpg`, there is no "/" delimiter in the key name, and the console shows the object at the root level of the bucket.

The console also supports following folder-level actions. For example, for the existing objects in a folder you can request Amazon S3 to store them encrypted using server-side encryption, or change the storage class for those objects. These actions apply only once to the existing objects in the folder. Amazon S3 console does not save this configuration and will not apply to any new objects you add to the bucket.

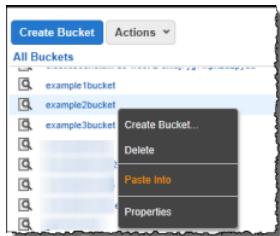


Support for Moving Data

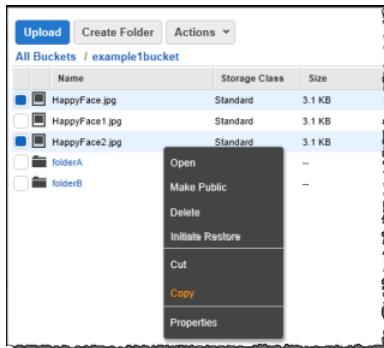
Using the Amazon S3 console, you can easily move data around. For example, to copy objects between buckets and folders right-click on an object inside the source bucket or folder and then click **Copy**.



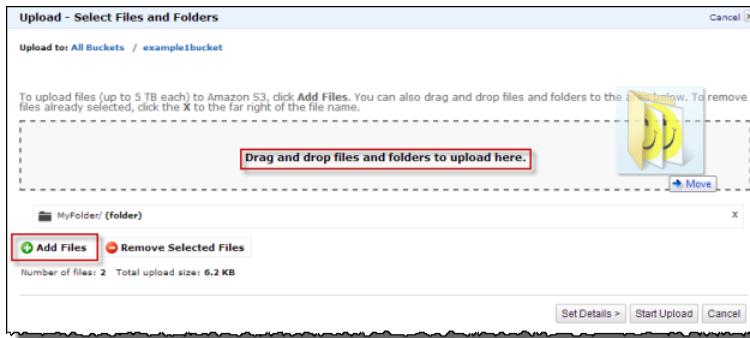
Then, right-click on the target bucket or folder and click **Paste Into** to make a copy.



The console also enables you to act on group of data. For example, you can select and copy multiple objects or folders.



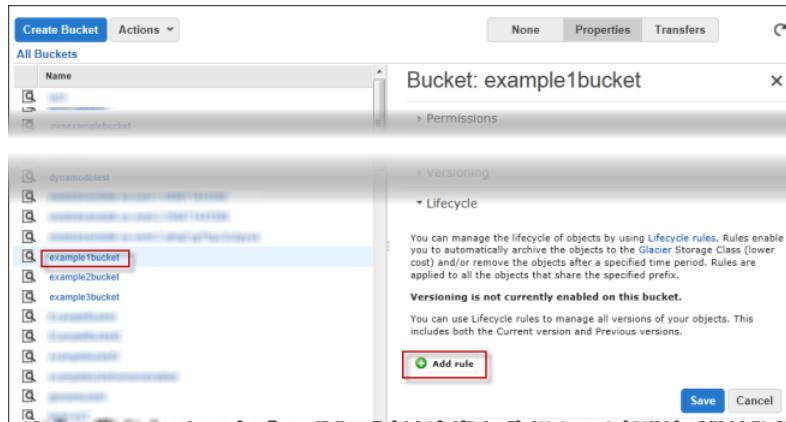
When uploading, you can upload an individual object or a folder. To upload click **Actions** and then click **Upload**. Then you can click **Add Files** or you can drag and drop files and folders to the **Drag and Drop files and folders to upload here**. area of the **Upload** dialog as shown in the following screenshot. Drag and drop does not work a with all Internet browsers.



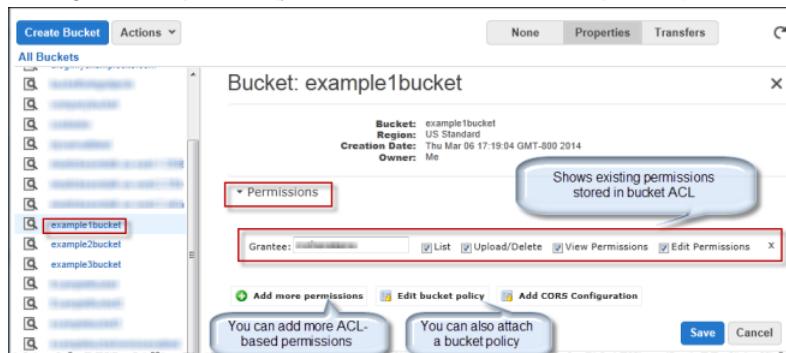
Intuitive UI

The Amazon S3 console provides an intuitive UI for some of the API calls. For example:

- You can set lifecycle policies by adding rules using the console UI.



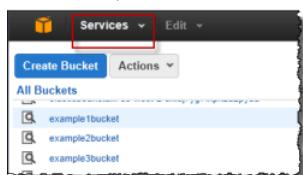
- Manage bucket policies (you can add or delete bucket policies) and other (ACL-based) permissions.



- You can also configure your bucket as a website.

Easy to Switch to Other AWS Consoles

From the Amazon S3 console, you can switch to other AWS consoles to manage your other AWS resources, such as the IAM console to manage users in your account.



About the Amazon S3 Documentation

Amazon S3 is documented in the following guides.

Amazon S3 Guide	Description
Developer Guide	This is the primary Amazon S3 guide. It provides conceptual information for all Amazon S3 features and provides working examples using some of the AWS SDKs.

Amazon S3 Guide	Description
API Reference	This guide documents the REST API operations that Amazon S3 supports. When sending requests to Amazon S3 using the REST API, you will need to sign the requests. This guide explains signing and authentication.
Getting Started Guide	This guide provides Amazon S3 console-based introductory experience of working with Amazon S3.
Console User Guide (this guide)	This guide provides detailed procedures for console-based operations. The help links in the console link to procedural topics in this guide.

Also, the Amazon S3 product detail page provides pricing and additional product information. You can also engage with the Amazon S3 community in the discussion forum.

Information	Relevant Sections
General product overview and pricing	Amazon Simple Storage Service (Amazon S3)
Discussion forum	Amazon S3 Forum

Working with Buckets

Topics

- [Creating a Bucket \(p. 9\)](#)
- [Deleting or Emptying an Amazon S3 Bucket \(p. 12\)](#)
- [Browsing the Objects in Your Bucket \(p. 14\)](#)
- [Editing Bucket Permissions \(p. 16\)](#)
- [Configuring a Bucket for Website Hosting \(p. 18\)](#)
- [Managing Bucket Logging \(p. 20\)](#)
- [Enabling Event Notifications \(p. 21\)](#)
- [Enabling Bucket Versioning \(p. 27\)](#)
- [Enabling Amazon S3 Transfer Acceleration \(p. 28\)](#)
- [Managing Lifecycle Configuration \(p. 30\)](#)
- [Managing Cost Allocation Tagging \(p. 40\)](#)
- [Managing Cross-Region Replication \(p. 41\)](#)

Every object you store in Amazon S3 resides in a bucket. You can use buckets to group related objects in the same way that you use a directory to group files in a file system. Buckets have properties, such as access permissions and versioning status, and you can specify the region where you want them to reside.

This section explains how to use the Amazon S3 console to create, delete, and manage buckets.

As you create buckets, upload objects, and perform various other operations, usage reports are available that you might find useful. For more information, go to the Billing and Cost Management console at <https://console.aws.amazon.com/billing/>.

Creating a Bucket

Before you can upload data into Amazon S3, you must create a bucket to store the data in. Buckets have configuration properties, including their geographical region, who has access to the objects in the bucket, and other metadata, such as the storage class of the objects in the bucket.

The console enables you to use folders, which you can store objects in. Folders, like objects, must reside in a bucket. For more information about using folders, see [Working With Folders \(p. 75\)](#).

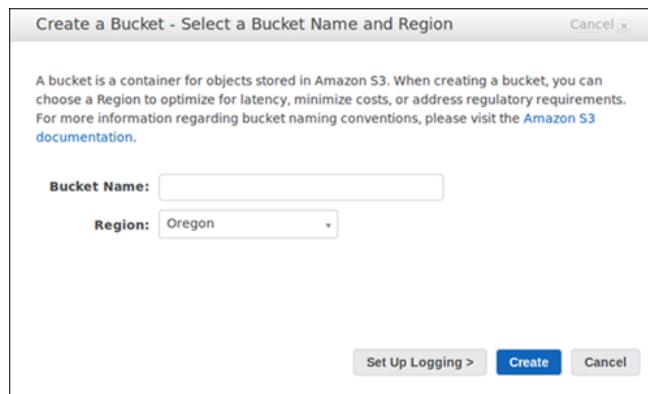
Use the following procedure to create a bucket.

Note

You are not charged for creating a bucket; you are only charged for storing objects in the bucket and for transferring objects out of the bucket.

To create a bucket

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Click **Create Bucket**.
3. In the Create Bucket dialog box, in the Bucket Name box, type a name for your bucket.



The name that you choose must be unique across all existing bucket names in Amazon S3. One way to help ensure uniqueness is to prefix your bucket names with the name of your organization.

The bucket name is visible in the URL that points to the objects that you're going to put in your bucket. For that reason, choose a bucket name that reflects the objects in the bucket.

To ensure a single, consistent naming approach for Amazon S3 buckets across regions and to ensure bucket names conform to DNS naming conventions, bucket names must comply with the following requirements.

- Can contain lowercase letters, numbers, periods (.), and hyphens (-).
- Must start with a number or letter.
- Must be between 3 and 63 characters long.
- Must not be formatted as an IP address (e.g., 192.168.5.4).
- Must not contain underscores (_).
- Must not end with a hyphen.
- Cannot contain two, adjacent periods.
- Cannot contain dashes next to periods (e.g., my-.bucket.com and my.-bucket are invalid).

Note

If you want to use your S3 bucket as an origin for an Amazon CloudFront distribution, the requirements for naming S3 buckets are more restrictive. For more information, see the `DNSName` element in the "S3Origin Child Elements" table in the [DistributionConfig Complex Type](#) section of the [Amazon CloudFront API Reference](#).

To take advantage of Amazon S3's CNAME support, you should name your bucket the same as your website's base address (e.g. www.mysite.com). For more information about CNAME, go to [Virtual Hosting](#) in the [Amazon Simple Storage Service Developer Guide](#).

Note

Once you create a bucket, you cannot change the name of it. Make sure the bucket name you choose is appropriate.

4. In the **Region** box, click the region where you want the bucket to reside.

You should choose a region close to you to optimize latency, minimize costs, or to address regulatory requirements. Objects stored in a region never leave that region unless you explicitly transfer them to another region. For more information about regions, go to [Regions and Endpoints](#) in the *Amazon Web Services General Reference*.

In the next step, you have the opportunity to set up logging. Server access logging provides detailed records for the requests made against your bucket. An access log record contains details about the request, such as the request type, the resources specified in the request worked, and the time and date the request was processed. Server access logs are useful for many applications because they give bucket owners insight into the nature of requests made by clients not under their control. Amazon S3 delivers access logs to your bucket. By default, Amazon S3 does not collect server access logs.

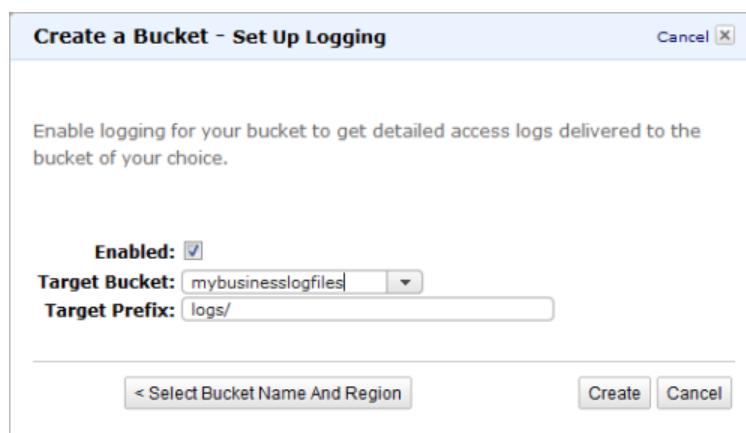
5. Do one of the following.

To...	Do this...
Create a bucket without setting up logging	Click Create
Set up server access logging for the bucket you're creating	Click Set Up Logging

Note

There is no extra charge for enabling server access logging on an Amazon S3 bucket. However, any log files the system delivers to you will accrue the usual charges for storage. (You can delete log files at any time.) We do not assess data transfer charges for delivering log files to your bucket, but we do charge the normal data transfer rate for accessing the log files. For more information, go to [Amazon S3 Pricing](#).

6. If you clicked **Set Up Logging** in the **Create a Bucket - Set Up Logging** dialog box, do the following:

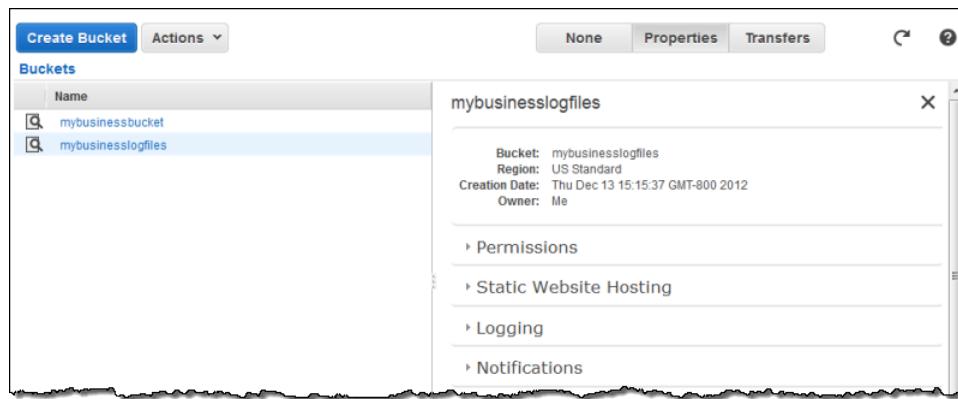


- a. Select the **Enabled** check box.
- b. In the **Target Bucket** box, select the bucket where you want the log files stored.
- c. (Optional) In **Target Prefix** box, specify a prefix for the name of the log files.

Amazon S3 adds the prefix to the log file names when storing them in your bucket. For example, if you specify the prefix "logs/", all logs stored in the target bucket are prefixed with logs/, so, all the logs will be stored in the logs folder.

7. Click **Create**.

If Amazon S3 successfully creates your bucket, the console displays your empty bucket.



Deleting or Emptying an Amazon S3 Bucket

This section explains how to use the console to delete or empty an Amazon S3 bucket.

You can delete a bucket and all the objects contained in the bucket. For information on the limitations for deleting a bucket, see [Deleting/Emptying a Bucket](#) in the *Amazon Simple Storage Service Developer Guide*.

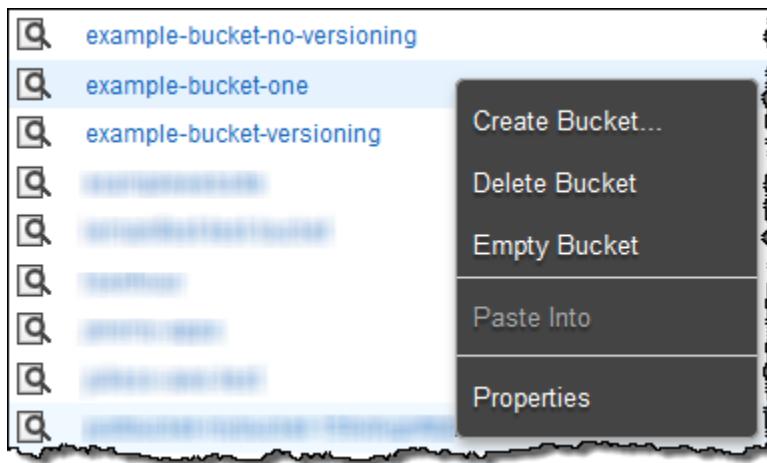
Note

When you delete a bucket with versioning enabled, all versions of all the objects in the bucket are deleted. For more information about managing objects when versioning is enabled, see [Managing Objects in a Versioning-Enabled Bucket \(p. 73\)](#).

When you delete a bucket, there may be a delay of up to one hour before the bucket name is available for reuse in a new region or by a new bucket owner. If you re-create the bucket in the same region or with the same bucket owner, there is no delay.

To delete a bucket

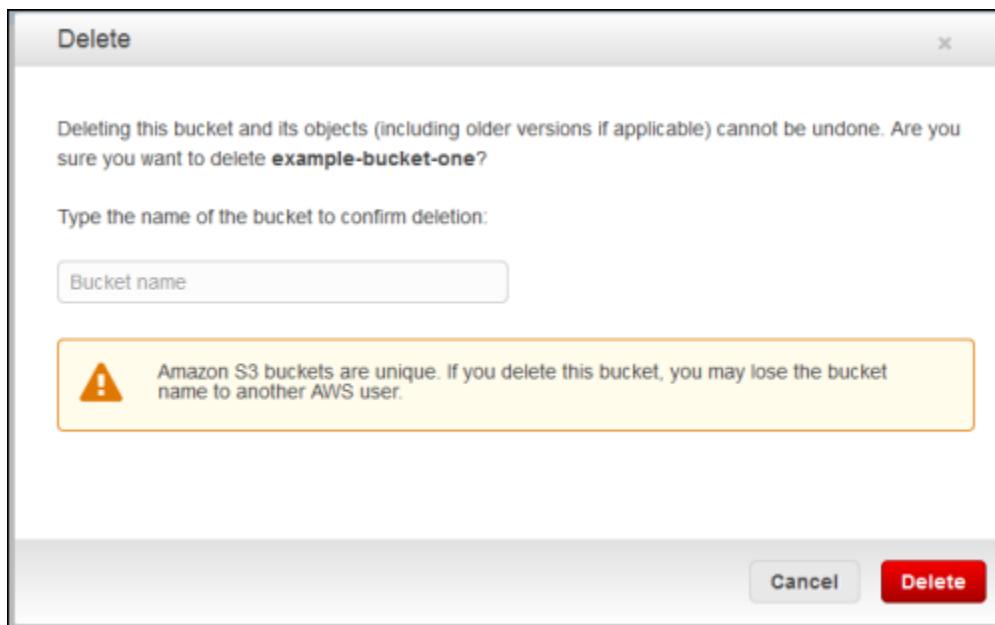
1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Right-click the bucket that you want to delete, and then click **Delete Bucket**.



Tip

Optionally, to get this menu you can click the bucket and then click **Actions**, which is near the top of the console window next to **Create Bucket**.

3. When a confirmation message appears, enter the bucket name and then click **Delete**.



You can empty a bucket, which deletes all the objects in the bucket without deleting the bucket. For information on the limitations for emptying a bucket, see [Deleting/Emptying a Bucket](#) in the *Amazon Simple Storage Service Developer Guide*.

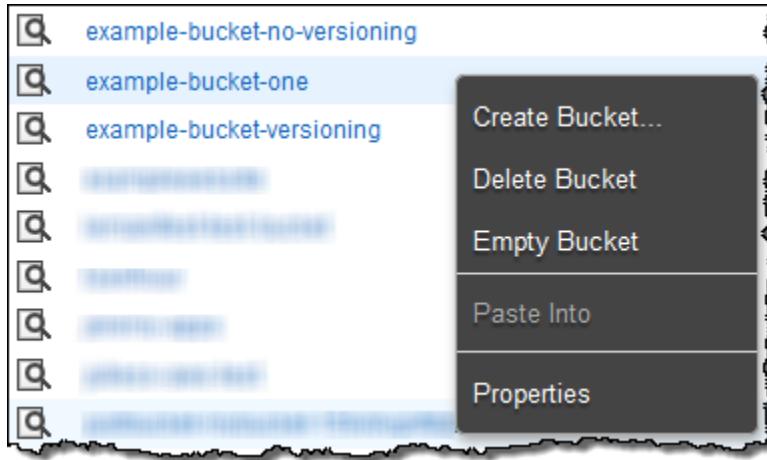
Note

When you empty a bucket with versioning enabled, all versions of all the objects in the bucket are deleted. For more information about managing objects when versioning is enabled, see [Managing Objects in a Versioning-Enabled Bucket \(p. 73\)](#).

To empty a bucket

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.

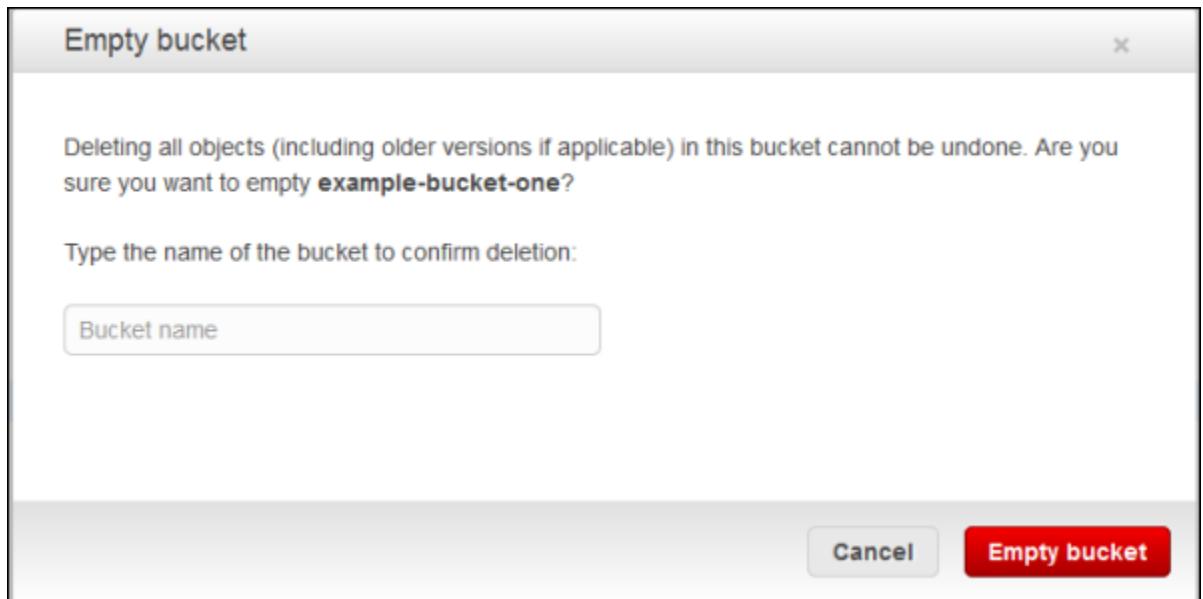
- Right-click the bucket that you want to empty, and then click **Empty Bucket**.



Tip

Optionally, to get this menu you can click the bucket and then click **Actions**, which is near the top of the console window next to **Create Bucket**.

- When a confirmation message appears, enter the bucket name and then click **Empty bucket**.



Browsing the Objects in Your Bucket

This section describes how to use the console to browse and display the objects and folders in your bucket.

To list the objects in a bucket

- Click the bucket whose objects you want to display.

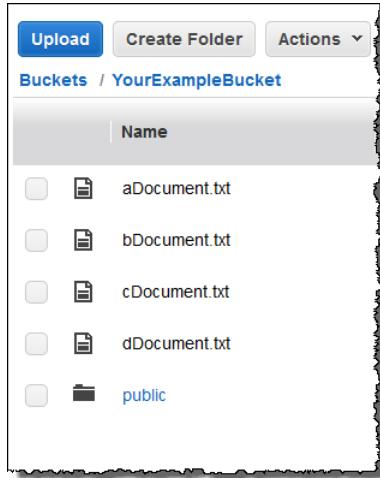
The Objects and Folders list displays the objects and folders in the selected bucket.

Note

If you have a large number of objects in a bucket, you can scroll down to the bottom of the Objects and Folders panel. When the scroll bar reaches the bottom of the list, the AWS Management Console automatically retrieves the next set of keys in your bucket, refreshes the view, and shows them in the console view.

When you click a bucket name, the console lists all the objects in the bucket in alphanumeric order. However, if your bucket contains large number of objects, scrolling down the long list to search for an object can be cumbersome. The jump feature enables you to type a string, and the console skips ahead to the specific object in the object list. If there are no objects whose key name match the specified string, the console jumps to the next object in the list in alphanumeric order.

For example, assume you have a bucket (ExampleBucket) with the following objects.

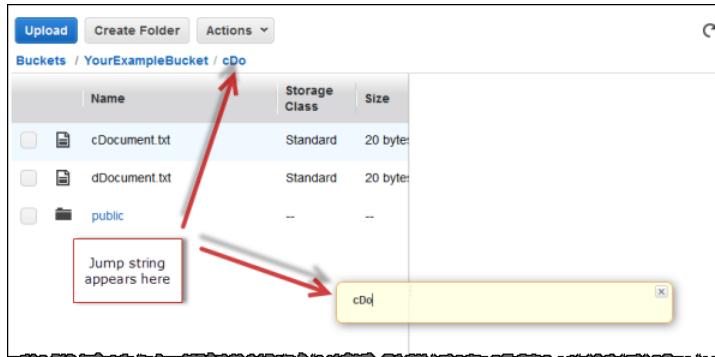


To jump to an object in your list

1. Click the bucket name to display its objects.
2. Begin typing an object key name.

As you begin typing characters, for example, a letter **c**, the console performs the following actions:

- Opens a *jump* dialog box showing the character you typed.
- Skips ahead to the first object whose key name starts with the string you typed.
- Appends the jump string to the existing navigation breadcrumb.



With the jump feature, you can do the following:

- **Press Enter** – This closes the jump dialog box. The jump results (such as the **cDo** shown in the preceding example screen shot) remain.
- **Press Backspace** – After clearing the jump dialog box, this returns you to the top of the list.
- **Press Esc** – This cancels the jump operation and the *jump* dialog box closes.

Tip

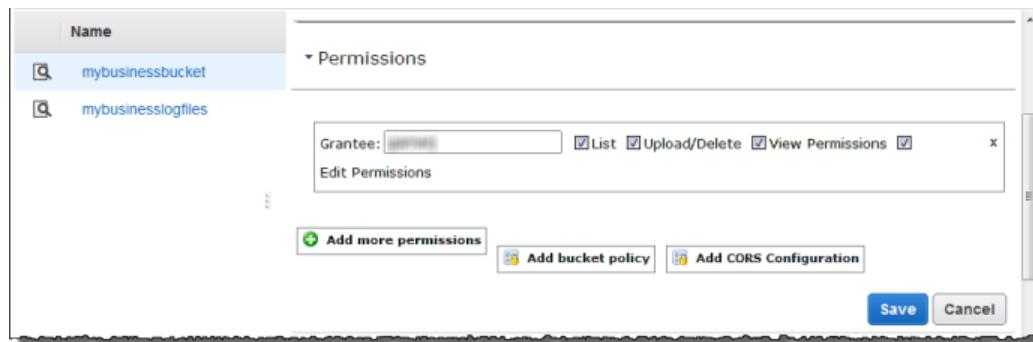
If the jump dialog box doesn't appear when you start typing, select a check box for any of the objects in the list, and try again.

Editing Bucket Permissions

Bucket permissions specify who is allowed access to the objects in a bucket and what permissions you have granted them. For example, one person might have only read permission while another might have read and write permissions.

To edit bucket permissions

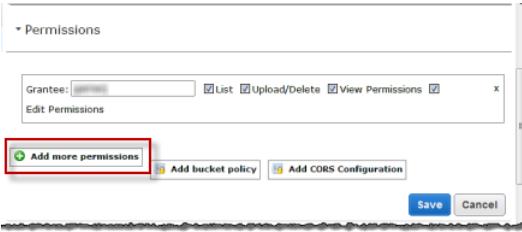
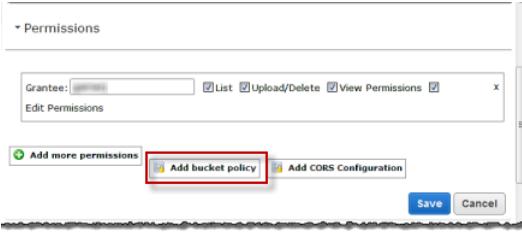
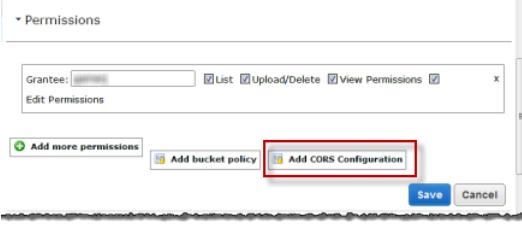
1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. In the Buckets list, click the bucket whose properties you want to view.



3. Click **Permissions**, and then do any of the following:

To...	Do this...
Add permissions for a person or group	<ol style="list-style-type: none">Click Add more permissions.In the Grantee box of the new line that appears, add the name of the person or group for which you want to set permissions. The name can be the email address associated with an AWS account, a canonical ID, or one of the predefined Amazon S3 groups. For a list of predefined Amazon S3 Groups, go to Who is a Grantee in the <i>Amazon Simple Storage Service Developer Guide</i>. You can add as many as 100 grantees.Select the check boxes next to the permissions you want to grant.

Amazon Simple Storage Service Console User Guide
Editing Bucket Permissions

To...	Do this...
	
Remove a person or group from the permission list	Click the "x" on the line of the grantee you want to remove.
Add a bucket policy	<ol style="list-style-type: none"> Click Add bucket policy. In the Bucket Policy Editor, paste your bucket policy into the box provided. For help in generating a policy, you can use the AWS Policy Generator. For examples of Amazon S3 bucket policies, see Bucket Policy Examples in the <i>Amazon Simple Storage Service Developer Guide</i>. Click Save. 
Add a Cross-Origin Resource Sharing (CORS) configuration	<ol style="list-style-type: none"> Click Add CORS Configuration. In the CORS Configuration Editor, paste your CORS configuration into the field provided, and then click Save. For information about CORS configuration, see Enabling Cross-Origin Resource Sharing in the <i>Amazon Simple Storage Service Developer Guide</i>. 

There are built-in groups that you can choose from the **Grantee** box:

- **Everyone**—Use this group to grant anonymous access.
- **Authenticated Users**—This group consists of any user that has an Amazon AWS Account. When you grant the Authenticated User group permission, any valid signed request can perform the appropriate action. The request can be signed by either an AWS Account or IAM User.
- **Log Delivery**—This group grants write access to your bucket when the bucket is used to store server access logs. For more information, see [Managing Bucket Logging](#).

- **Me**—This group refers to your AWS root account, and not an IAM user.

You can grant permission to an AWS account by entering the accounts canonical user ID or email address in the **Grantee** field. The email address must be the same one they used when signing up for an AWS account. You can grant a grantee any of the following permissions:

- **Open/Download**—Enables the account to access the object when they are logged in
- **View Permissions**—Can view the permissions associated with the object
- **Edit Permissions**—Can edit the permissions associated with the object

For more information about predefined Amazon S3 Groups, go to [Who is a Grantee](#) in the *Amazon Simple Storage Service Developer Guide*.

You can grant access to an account by using the email address that the user entered when signing up for an AWS account. You can grant an account any of the following permissions:

- **List** – Allows the grantee to view a list of the objects in the bucket.
- **Upload/Delete** – Allows the grantee to access the object when they logged in.
- **View Permissions** – Allows the grantee to view the permissions associated with the object.
- **Edit Permissions** – Allows the grantee to edit the permissions associated with the object.

Caution

We highly recommend against granting the Everyone group **Upload/Delete** permission. Doing so will allow anyone to store objects in your bucket, for which you will be billed, and allows others to delete objects that you may want to keep.

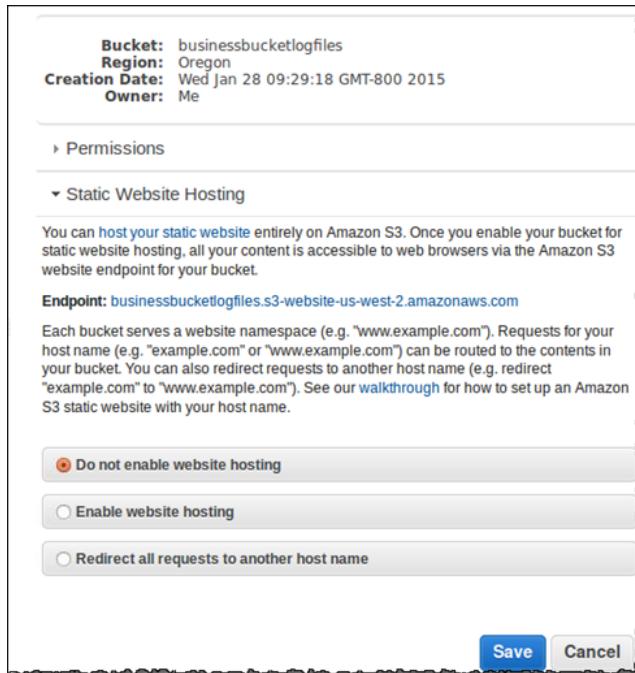
4. Click **Save**.

Configuring a Bucket for Website Hosting

You can host static websites on Amazon S3. For conceptual information, go to [Hosting Websites on Amazon S3](#) in the *Amazon Simple Storage Service Developer Guide*. This section explains how to use the Amazon S3 console to configure a bucket as a website.

To manage a bucket's website configuration

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. In the Buckets pane, click the bucket that you want to configure.
3. In the result pane, click **Static Website Hosting**.



4. Do one of the following:
 - To configure a bucket for website hosting, click **Enable website hosting**. In the **Index Document** box, type the name of the index document. Optionally, in the **Error Document** box, you can also provide the name of a custom error document and specify custom rules to redirect requests. For more information, go to [Configure a Bucket for Website Hosting](#) in the *Amazon Simple Storage Service Developer Guide*.
 - To redirect all requests to a different web page, click **Redirect all requests to another host name**. In the **Redirect all requests to** box, type the name of the location where you want requests to be redirected, for example, example.com or http://example.com. If you don't specify the protocol (http, https), the protocol of the original request is used. If you redirect all requests, then any request made to the bucket's website endpoint will be redirected to the specified host name.
5. When the settings are as you want them, click **Save**.
6. Add the following policy to the bucket to grant everyone access to the objects in the bucket. For step-by-step instructions, see [Editing Bucket Permissions \(p. 16\)](#).

When you configure a bucket as a website, you must make the objects that you want to serve publicly readable. To do so, you write a bucket policy that grants everyone `s3:GetObject` permission. The following sample bucket policy grants everyone access to the objects in the `example-bucket` bucket.

```
{  
    "Version": "2012-10-17",  
    "Statement": [ {  
        "Sid": "PublicReadGetObject",  
        "Effect": "Allow",  
        "Principal": "*",  
        "Action": [ "s3:GetObject" ],  
        "Resource": [ "arn:aws:s3:::example-bucket/*" ]  
    } ]
```

]
}

For more information, go to [Permissions Required for Website Access](#) in the *Amazon Simple Storage Service Developer Guide*.

Note

If you click **Do not enable website hosting**, Amazon S3 removes any existing website configuration from the bucket, and the bucket is not accessible from the website endpoint. However, the bucket is still available at the REST endpoint.

Managing Bucket Logging

Logging provides a way to get detailed access logs delivered to a bucket you choose. An access log record contains details about the request, such as the request type, the resources specified in the request worked, and the time and date the request was processed. For more information about the contents of a log, see [Server Access Log Format](#) in the *Amazon Simple Storage Service Developer Guide*.

Server access logs are useful for many applications because they give bucket owners insight into the nature of requests made by clients not under their control. By default, Amazon S3 doesn't collect service access logs, but when you enable logging Amazon S3 delivers access logs to your bucket on an hourly basis.

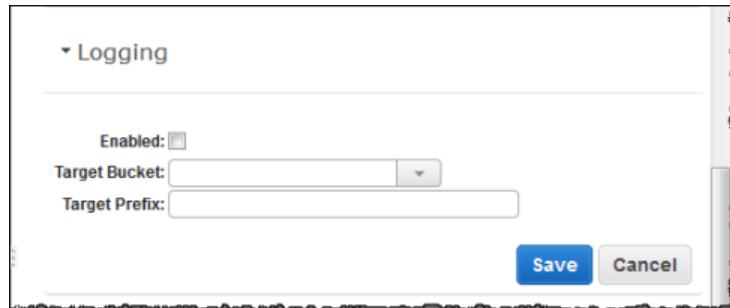
This section describes how to use the console to enable and disable logging for a bucket. You can store logs in the same bucket you enable logging for, or you can store the logs in a different bucket. For more information about bucket logging, see [Accessing Server Logs](#) in the *Amazon Simple Storage Service Developer Guide*.

Note

There is no extra charge for enabling server access logging on an Amazon S3 bucket. However, any log files the system delivers to you will accrue the usual charges for storage. (You can delete the log files at any time.) We do not assess data transfer charges for log file delivery, but we do charge the normal data transfer rate for accessing the log files.

To enable logging on a bucket

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Under **All Buckets**, click the bucket for which access requests will be logged.
3. In the Details pane, click **Properties**
4. Under **Logging**, do the following:



- Select the **Enabled** check box
 - In the **Target Bucket** box, click the name of the bucket that will receive the log objects.
 - (optional) To specify a key prefix for log objects, in the **Target Prefix** box, type the prefix that you want.
5. Click **Save**.

To disable logging on a bucket

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Under **All Buckets**, click the bucket for which access requests will be logged.
3. In the Details pane, click **Properties** Under **Logging**, clear the **Enabled** check box.
4. Click **Save**.

Enabling Event Notifications

You can enable certain Amazon S3 bucket events to send a notification message to a destination whenever the events occur. This section explains how to use the Amazon S3 console to enable event notifications. For more information about using event notifications and how to use the Amazon S3 API to enable event notifications, see [Configuring Notifications for Amazon S3 Events](#) in the *Amazon Simple Storage Service Developer Guide*.

Amazon S3 can send notifications for the following events:

An object created event

You select **ObjectCreated(All)** when configuring your events in the console to enable notifications for anytime an object is created in your bucket. Or, you can select one or more of the specific object-creation actions to trigger event notifications. These actions are **PUT**, **POST**, **Copy**, and **CompleteMultiPartUpload**.

An object removed event

You select **ObjectRemoved(All)** when configuring your events in the console to enable notification for anytime an object is deleted. Or you can select **Delete** to trigger event notifications when an unversioned object is deleted or a versioned object is permanently deleted. Select **DeleteMarkerCreated** to trigger event notifications when a delete marker is created for a versioned object. For information about deleting versioned objects, see [Deleting Object Versions](#). For information about object versioning, see [Object Versioning](#) and [Using Versioning](#).

A Reduced Redundancy Storage (RRS) object lost event

Amazon S3 sends a notification message when it detects that an object of RRS storage class has been lost.

Event notification messages can be sent to the following types of destinations:

- An Amazon Simple Notification Service (Amazon SNS) topic
- An Amazon Simple Queue Service (Amazon SQS) queue
- An AWS Lambda function

Topics

- [Set Up a Destination to Receive the Event Notifications \(p. 22\)](#)
- [Enable Event Notifications \(p. 23\)](#)
- [Editing and Deleting Event Notifications Configurations \(p. 27\)](#)

Set Up a Destination to Receive the Event Notifications

Before you can enable event notifications for your bucket you must set up one of the following destination types:

An Amazon SNS topic

You can use the Amazon SNS console to create an Amazon SNS topic that your notifications can be sent to. The Amazon SNS topic must be in the same region as your Amazon S3 bucket. For information about creating an Amazon SNS topic, see [Getting Started](#) in the *Amazon Simple Notification Service Developer Guide*.

Before you can use the Amazon SNS topic that you create as an event notification destination.

- You must have the Amazon Resource Name (ARN) for the Amazon SNS topic.
- You must have a valid Amazon SNS topic subscription. The topic subscribers are notified when a message is published to your Amazon SNS topic.
- You must set up a permissions policy through the Amazon SNS console as shown in the following example.

```
{  
    "Version": "2012-10-17",  
    "Id": "__example_policy_ID",  
    "Statement": [  
        {  
            "Sid": "example-statement-ID",  
            "Effect": "Allow",  
            "Principal": "*",  
            "Action": "SNS:Publish",  
            "Resource": "arn:aws:sns:region:account-number:topic-name",  
            "Condition": {  
                "ArnEquals": {  
                    "aws:SourceArn": "arn:aws:s3:::bucket-name"  
                }  
            }  
        }  
    ]  
}
```

An Amazon SQS queue

You can use the Amazon SQS console to create an Amazon SQS queue that your notifications can be sent to. The Amazon SQS queue must be in the same region as your Amazon S3 bucket. For information about creating an Amazon SQS topic, go to [Working with Amazon SQS](#) in the *Amazon Simple Queue Service Developer Guide*.

Before you can use the Amazon SQS queue as an event notification destination.

- You must have the Amazon Resource Name (ARN) for the Amazon SQS topic.
- You must set up a permissions policy through the Amazon SQS console as shown in the following example.

```
{  
    "Version": "2012-10-17",  
    "Id": "__example_policy_ID",  
    "Statement": [  
        {  
            "Sid": "example-statement-ID",  
            "Effect": "Allow",  
            "Principal": "*",  
            "Action": "SQS:SendMessage",  
            "Resource": "arn:aws:sqs:region:account-number:queue-name",  
            "Condition": {  
                "ArnEquals": {  
                    "aws:SourceArn": "arn:aws:s3:::bucket-name"  
                }  
            }  
        }  
    ]  
}
```

```
"Effect": "Allow",
"Principal": "*",
>Action": "SQS:*",
"Resource": "arn:aws:sqs:region:account-number:queue-name" ,
"Condition": {
    "ArnEquals": {
        "aws:SourceArn": "arn:aws:s3:::bucket-name"
    }
}
]
```

A Lambda function

You can use the AWS Lambda console to create a Lambda function. The Lambda function must be in the same region as your S3 bucket. For information about creating a Lambda function, see the [AWS Lambda Developer Guide](#).

Before you can use the Lambda function as an event notification destination, you must have the name or the ARN of a Lambda function to set up the Lambda function as a event notification destination.

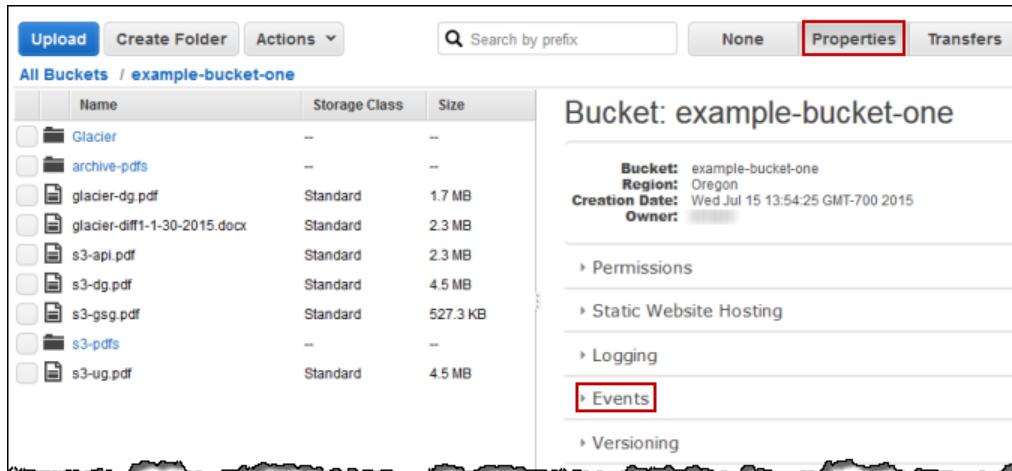
For information about using Lambda with Amazon S3, see [Using AWS Lambda: with Amazon S3](#) in the *AWS Lambda Developer Guide*.

Enable Event Notifications

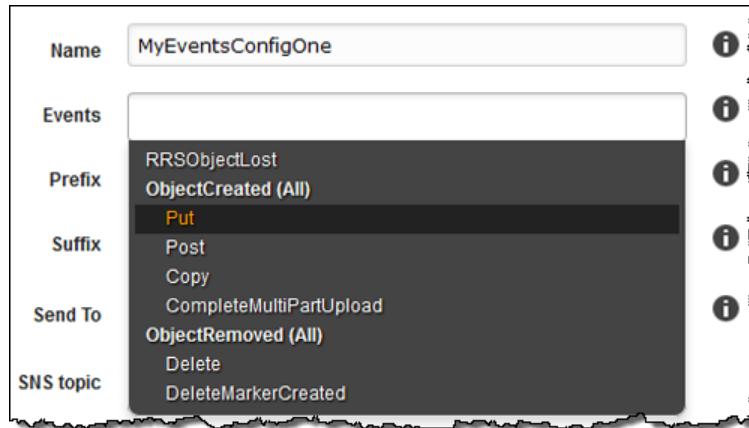
The following procedure shows you how to enable event notifications for a bucket.

To enable bucket event notifications

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. In the **Buckets** list, click the bucket whose events you want to configure, click **Properties** and then click **Events**.



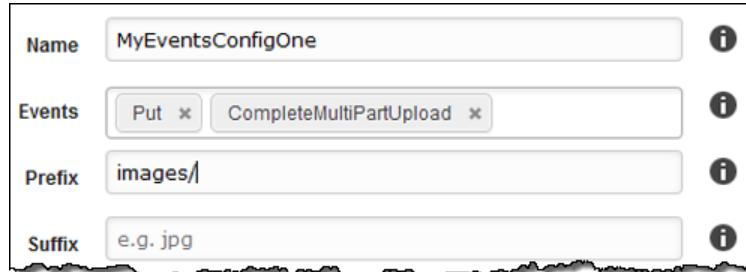
3. In the **Name** box, type a descriptive name for your event configuration. If you do not enter a name, a GUID is autogenerated and used for the name.
4. Click in the **Events** box and select the type or types of events that you want to send notifications to a destination when an event occurs.



Name	MyEventsConfigOne	
Events		
Prefix	RRSObjectLost ObjectCreated (All) Put	
Suffix	Post Copy CompleteMultiPartUpload	
Send To	ObjectRemoved (All) Delete DeleteMarkerCreated	
SNS topic		

5. Select **ObjectCreated(All)** to enable event notifications for anytime an object is created in the bucket. Or, you can select specific object creation actions to trigger notifications. For example, you could select **Put** and **CompleteMultiPartUpload** to trigger event notifications anytime a new object is put into a bucket and anytime a multipart upload completes. (Optionally, you could select **ObjectRemoved(All)** to enable event notifications for anytime an object is deleted in the bucket. Or, you could select **Delete** or **DeleteMarkerCreated** to trigger notifications for specific types of object deletes.)

You can configure notifications to be filtered by the prefix and/or suffix of the name of objects. For example, you can set up a configuration so that you are sent a notification only when files are added to an image folder (objects with the name prefix `images/`). For more information on filtering, see see [Configuring Notifications with Object Key Name Filtering](#).



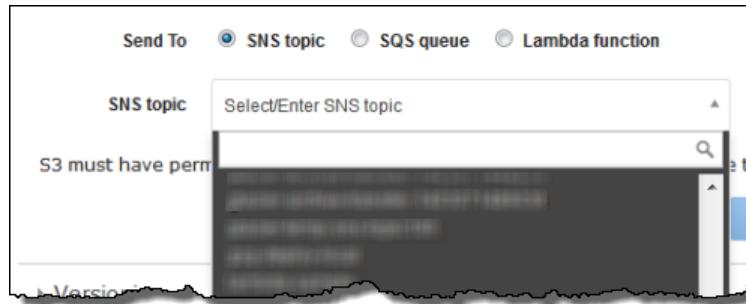
Name	MyEventsConfigOne	
Events	Put CompleteMultiPartUpload	
Prefix	images/	
Suffix	e.g. jpg	

6. Select the type of destination to have the event notifications sent to.



Send To	<input checked="" type="radio"/> SNS topic	<input type="radio"/> SQS queue	<input type="radio"/> Lambda function
---------	--	---------------------------------	---------------------------------------

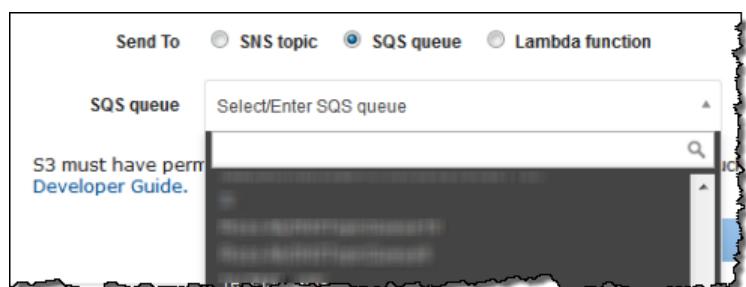
- a. If you select the **SNS Topic** destination type.
 - i. In the **SNS topic** box, type the name or select from the menu, the Amazon SNS topic that will receive notifications from Amazon S3. For information about the Amazon SNS topic format, go to <http://aws.amazon.com/sns/faqs/#10>.



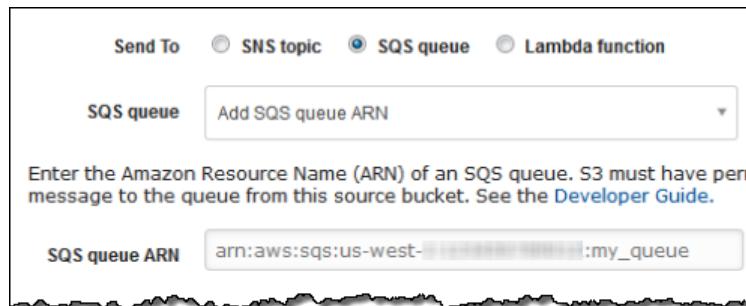
- ii. (Optional) You can also select **Add SNS topic ARN** from the menu and type the **ARN** of the SNS topic in the **SNS topic ARN** box.



- b. If you select the **SQS queue** destination type.
- i. In the **SQS queue** box, type the name or select from the menu, the name of the Amazon SQS queue that will receive notifications from Amazon S3. For information about Amazon SQS, see [Amazon Simple Queue Service Developer Guide](#).

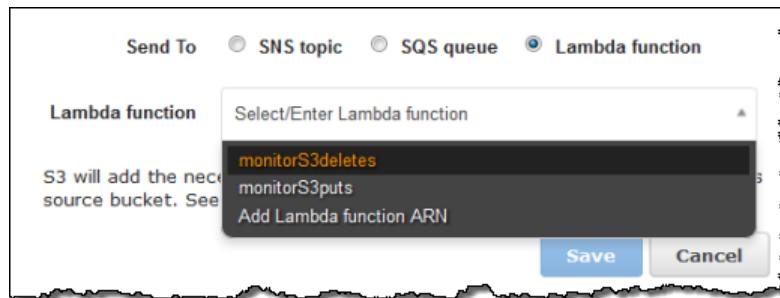


- ii. (Optional) You can also select **Add SQS topic ARN** from the menu and type the ARN of the SQS queue in the **SQS queue ARN** box.

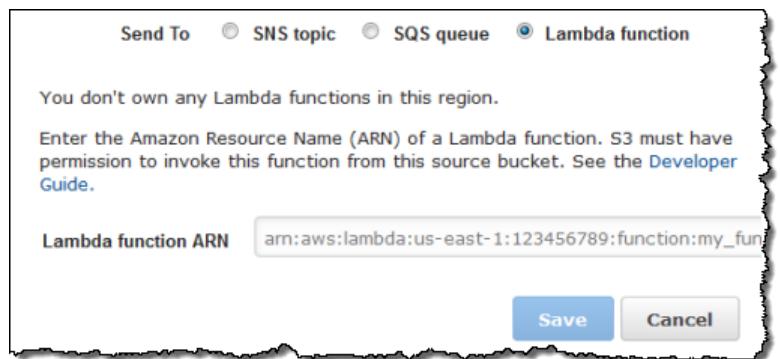


- c. If you select the **Lambda Function** destination type.

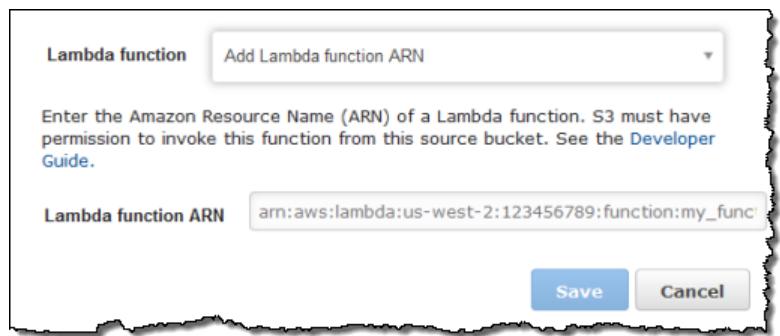
- i. In the **Lambda Function** box, type or choose the name of the Lambda function that you want to receive notifications from Amazon S3.



- ii. If you don't have any Lambda functions in the region that contains your bucket, you'll be prompted to enter a Lambda function ARN. In the **Lambda Function ARN** box, type the ARN of the Lambda function that you want to receive notifications from Amazon S3.



- iii. (Optional) You can also choose **Add Lambda function ARN** from the menu and type the ARN of the Lambda function in the **Lambda function ARN** box.



For information about using Lambda with Amazon S3, see [Using AWS Lambda: with Amazon S3](#) in the *AWS Lambda Developer Guide*.

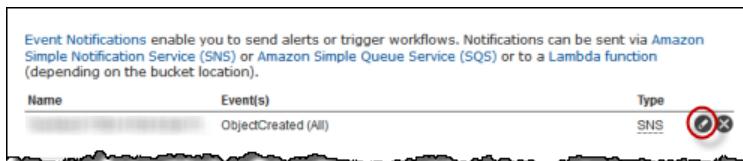
7. Choose **Save**. Amazon S3 will send a test message to the event notification destination.

Editing and Deleting Event Notifications Configurations

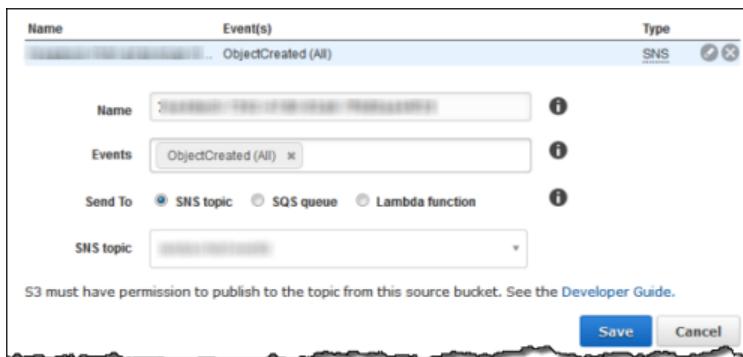
After you have saved an event notifications configuration, you can edit or delete the configuration.

To edit an event notifications configuration

1. In the Event Notifications list, click the pencil icon.



2. Make your changes and then click **Save**.



To delete an event notifications configuration

- In the Event Notifications list, click the x icon that appears on the right side of the screen for the event notification that you want to delete and then click **Save**.



Enabling Bucket Versioning

This section describes how to enable versioning on a bucket. For more information about versioning support in Amazon S3, see [Using Versioning](#) in the *Amazon Simple Storage Service Developer Guide*. For more information about managing objects when versioning is enabled, see [Managing Objects in a Versioning-Enabled Bucket \(p. 73\)](#).

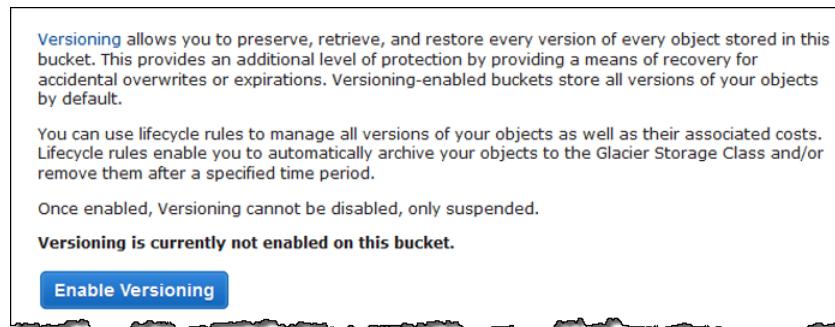
Important

If you have an object expiration lifecycle policy in your non-versioned bucket and you want to maintain the same permanent delete behavior when you enable versioning, you must add a noncurrent expiration policy. The noncurrent expiration lifecycle policy will manage the deletes

of the noncurrent object versions in the version-enabled bucket. (A version-enabled bucket maintains one current and zero or more noncurrent object versions.) For more information, see [Lifecycle Configuration for a Bucket with Versioning \(p. 34\)](#).

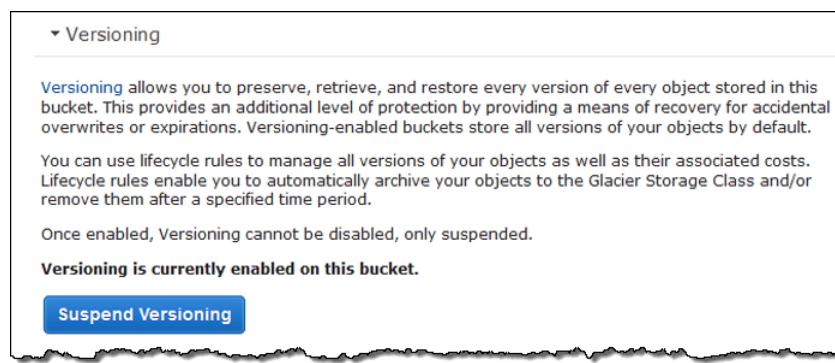
To enable versioning on a bucket

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. In the **Buckets** list, click the details icon on the left of the bucket name and then click **Properties** to display bucket properties.
3. In the **Properties** pane, click **Versioning** and then click **Enable Versioning**.



4. The console displays a confirmation dialog. Click **OK** to enable versioning on the bucket.

Amazon S3 enables versioning on the bucket. Accordingly, the console UI replaces the **Enable Versioning** button with the **Suspend Versioning** button.



After you enable versioning on a bucket, it can be in only the enabled or suspended state; you cannot disable versioning on a bucket. If you suspend versioning, Amazon S3 suspends the creation of object versions for all operations, but preserves any existing object versions. For more information, see [Working with Versioning-Suspended Buckets](#) in the *Amazon Simple Storage Service Developer Guide*.

Enabling Amazon S3 Transfer Acceleration

This section describes how to enable Amazon S3 Transfer Acceleration on a bucket. For more information about transfer acceleration in Amazon S3, see [Transfer Acceleration](#) in the *Amazon Simple Storage Service Developer Guide*.

To enable Transfer Acceleration on a bucket

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. In the **Buckets** list, choose the bucket you want to enable, choose **Properties**, and then choose **Transfer Acceleration**.

The screenshot shows the 'Properties' tab selected in the top navigation bar. Below it, the bucket details are shown: Bucket: example-acc-bucket, Region: Oregon, Creation Date: Thu Apr 14 10:20:28 GMT-700 2016, and Owner. A sidebar on the left lists various configuration options: Permissions, Static Website Hosting, Logging, Events, Versioning, Lifecycle, Cross-Region Replication, Tags, Requester Pays, and Transfer Acceleration. The 'Transfer Acceleration' link is highlighted with a red box.

3. Choose **Enable** to enable Transfer Acceleration.

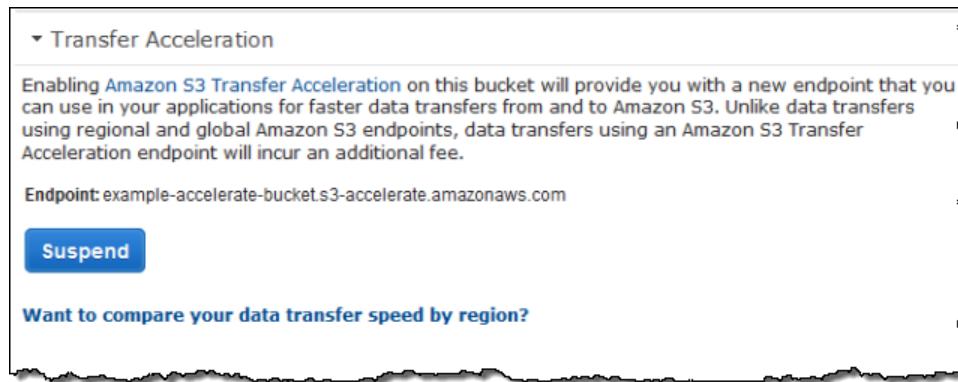
The screenshot shows the 'Transfer Acceleration' configuration dialog. It contains a descriptive text about enabling Transfer Acceleration and an 'Enable' button. A link to compare transfer speeds by region is also present.

4. Amazon S3 enables Transfer Acceleration on the bucket. Accordingly, the **Enable** button text changes to **Suspend**.

Endpoint displays the endpoint domain name that you use to access accelerated data transfers to and from the Transfer Acceleration enabled bucket. If you suspend Transfer Acceleration, the accelerate endpoint will no longer be displayed and will no longer work.

Note

You can continue to use the regular endpoint in addition to the accelerate endpoint.



5. (Optional) Choose **Want to compare your data transfer speed by region?** if you want to run the Amazon S3 Transfer Acceleration Speed Comparison tool, which compares accelerated and non-accelerated upload speeds starting with the region of the enabled bucket. The Speed Comparison tool uses multipart uploads to transfer a file from your browser to various Amazon S3 regions with and without using Amazon S3 Transfer Acceleration.

For more information about Amazon S3 Transfer Acceleration, see [Transfer Acceleration](#) in the [Amazon Simple Storage Service Developer Guide](#).

Managing Lifecycle Configuration

This section explains how to define and manage lifecycle configuration rules for a bucket: adding, viewing, deleting, and disabling rules. You can use lifecycle configuration rules to define actions you want Amazon S3 to take during an object's lifetime (for example, transition objects to another storage class, archive them, or delete them after a specified period of time).

You can configure as many as 1000 lifecycle rules per bucket. You can define a rule for all objects or a subset of objects in the bucket (by specifying the key name prefix). You can temporarily disable a rule.

If a bucket is versioning-enabled, the lifecycle defines actions specific to current and noncurrent object versions.

For more information see the [Object Lifecycle Management](#) and [Using Versioning](#) topics in the [Amazon Simple Storage Service Developer Guide](#).

Topics

- [Lifecycle Configuration for a Bucket without Versioning \(p. 30\)](#)
- [Lifecycle Configuration for a Bucket with Versioning \(p. 34\)](#)
- [Maintaining Lifecycle Configuration Rules \(p. 39\)](#)

Lifecycle Configuration for a Bucket without Versioning

An unversioned bucket maintains only one version of each object, and the lifecycle transition and expiration actions apply to these objects. For more information about lifecycle configuration rules, see [Object Lifecycle Management](#) in the [Amazon Simple Storage Service Developer Guide](#).

Suppose you store videos in your bucket and these video objects use "videos/" as the key name prefix. The following example walkthrough creates a lifecycle configuration rule for a bucket that archives video files in the bucket 90 days after creation and then permanently deletes them 455 days after creation. The rule also automatically ends and cleans up any multipart uploads that have not completed after 7 days.

Example: Add a Lifecycle Configuration Rule to a Bucket without Versioning

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. In the **Buckets** list, choose the bucket whose lifecycle configuration you want to configure, click **Properties** and then choose **Lifecycle**.

3. Choose **Add rule**.

You can manage the lifecycle of objects by using Lifecycle rules. Lifecycle rules enable you to automatically transition objects to the Standard - Infrequent Access Storage Class, and/or archive objects to the Glacier Storage Class, and/or remove objects after a specified time period. Rules are applied to all the objects that share the specified prefix.

Versioning is not currently enabled on this bucket.

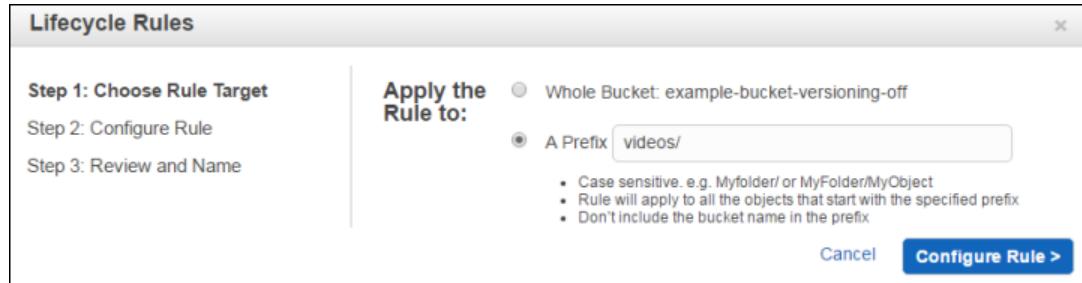
You can use Lifecycle rules to manage all versions of your objects. This includes both the Current version and Previous versions.

[+ Add rule](#) Save Cancel

4. Select **A Prefix** and enter **videos/** as the prefix to specify the subset of objects to which the rule applies, and then click **Configure Rule**. (In our example, entering "videos/" will apply the rule to all objects in the bucket's "videos" folder.)

For more information about key name prefixes and how they map to folders, go to [Object Keys](#) in the Amazon Simple Storage Service Developer Guide.

If you selected **Whole Bucket** the rule would apply to all objects in the bucket.



5. You configure lifecycle rules by defining actions. In the **Action on Objects** section define the lifecycle actions:

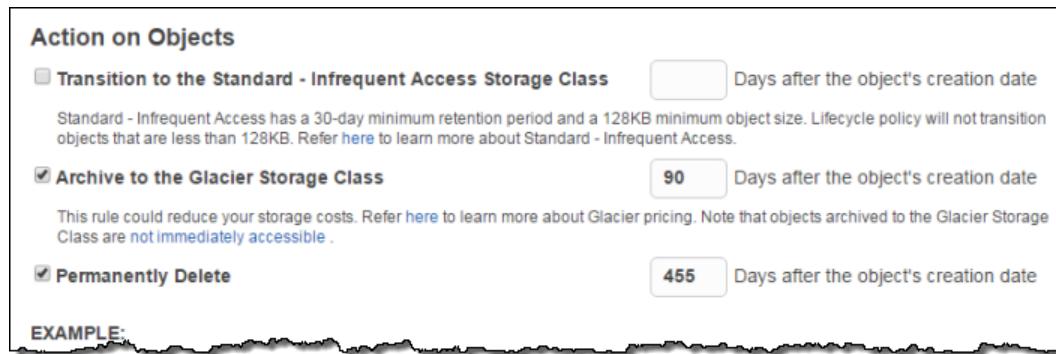
- a. Select **Archive to the Glacier Storage Class** and enter 90 for the number days after an object's creation date that you want to archive the object to the Glacier storage class.

Select **Permanently Delete** and enter 455 for the number of days after an object's creation date that you want the object to be permanently deleted. You cannot recover permanently deleted objects.

Important

Selecting **Permanently Delete** will not remove incomplete multipart uploads. You must select **End and Clean up Incomplete Multipart Uploads** as described in the next step to have incomplete multipart uploads removed.

Verify that the illustration in the **EXAMPLE** section matches how you want your rule to work.



- b. It is a recommended best practice to select **End and Clean up Incomplete Multipart Uploads**. For our example, enter 7 for the number of days after the multipart upload initiation date that you want to end and clean up any multipart uploads that have not completed. Then choose **Review**.

Amazon Simple Storage Service Console User Guide
Lifecycle Configuration for
a Bucket without Versioning

Action on Incomplete Multipart Uploads

End and Clean up Incomplete Multipart Uploads Days after an upload initiation date

This rule will end and clean up multipart uploads that are not completed within a predefined number of days after initiation. [Learn more.](#)

Cancel < Set Target **Review >**

For more information about multipart uploads, see [Multipart Upload Overview](#) in the *Amazon Simple Storage Service Developer Guide*.

6. Review and name your rule.
 - a. (Optional) You can give your rule a name to identify the rule, if you want. The name must be unique within the bucket. By default, Amazon S3 will generate a unique identifier for the rule.
 - b. Choose **Edit** next to **Rule Target** or **Rule Configuration** if you want to make changes.
 - c. Choose **Create and Activate Rule** when all of the settings are as you want them.

Rule Name

Choose a descriptive name for your rule so you can easily identify it in the future. If you do not want to enter a name now, we will generate one for you.

Rule Name: (Optional)

Rule Target

This rule will apply to Objects with the prefix: **videos/** in the **example-bucket-versioning-off** bucket

Rule Configuration

Action on Objects

Archive to the Glacier Storage Class **90** days after the object's creation date.

This rule could reduce your storage costs. Refer [here](#) to learn more about Glacier pricing. Note that objects archived to the Glacier Storage Class are [not immediately accessible](#).

Permanently Delete **455** days after the object's creation date

As versioning is not enabled, lifecycle delete rule will permanently delete the objects with no recovery.

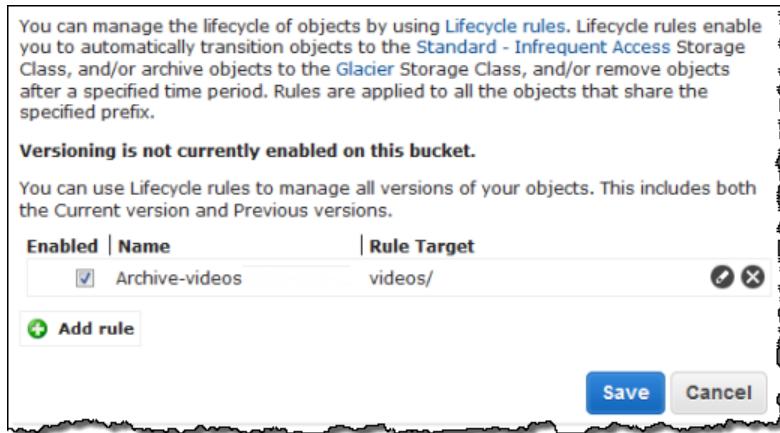
Action on Incomplete Multipart Uploads

End and Clean up Incomplete Multipart Uploads **7** days after an upload initiation date.

This rule will end and clean up multipart uploads that are not completed within a predefined number of days after initiation.

Cancel < Configure Rule **Create and Activate Rule**

7. If the rule does not contain any errors, it is displayed in the **Lifecycle** pane.



For more information about modifying, disabling, or deleting an existing lifecycle configuration rule, see [Maintaining Lifecycle Configuration Rules \(p. 39\)](#).

Lifecycle Configuration for a Bucket with Versioning

A versioning-enabled bucket can have many versions of the same object, one current version and zero or more noncurrent (previous) versions. You can add lifecycle rules to buckets that have object versioning enabled or suspended. Using a lifecycle configuration, you can define actions specific to current and noncurrent object versions. For information about lifecycle management and bucket versioning, see the following topics in the *Amazon Simple Storage Service Developer Guide*:

- [Object Lifecycle Management](#)
- [Using Versioning](#)

The combined lifecycle and versioning functionality acts like a recycling bin, granting you the following benefits:

- Recovering previous versions for a specified time to protect against unintended overwrites or deletions of your content.
- Setting specific windows of time for retaining the noncurrent versions in Amazon S3, archiving in Amazon Glacier, or scheduling automatic deletion to help you control storage costs.

The following example walkthrough adds the following lifecycle configuration to a versioning-enabled bucket.

- Archive the current object versions in the `documents` folder 365 days after creation.
- Transition noncurrent objects to the `STANDARD_IA` (infrequent access) storage class 30 days after they become noncurrent and transition them to the `GLACIER` storage class (archive them) 60 days after they become noncurrent. Permanently delete the noncurrent objects 425 days after they become noncurrent and remove expired object delete markers.
- End and clean up multipart uploads that have not completed after 7 days.

Example: Add a Lifecycle Configuration Rule to a Versioned Bucket

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. In the **Buckets** list, choose the bucket whose lifecycle configuration you want to configure, choose **Properties**, and then choose **Lifecycle**.

The screenshot shows the AWS S3 console interface. At the top, there are navigation buttons: Upload, Create Folder, Actions, Versions (with Hide and Show options), a search bar (Search by prefix), and buttons for None, Properties (which is highlighted with a red box), and Transfers. Below this is a table titled "All Buckets / example-bucket-versioning-on" showing object details like Name, Storage Class, and Size. On the right, the "Bucket: example-bucket-versioning-on" details pane is visible, including fields for Bucket, Region, Creation Date, Owner, and MFA Delete. A sidebar on the right lists various configuration tabs: Permissions, Static Website Hosting, Logging, Events, Versioning, Lifecycle (which is highlighted with a red box), Cross-Region Replication, Tags, and Requester Pays.

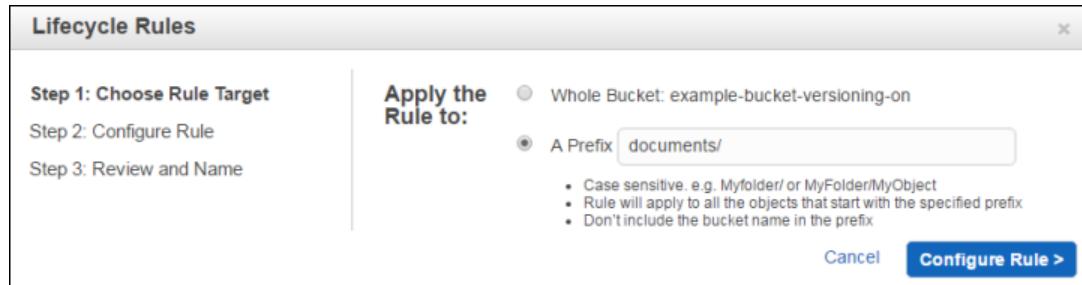
3. Choose **Add rule**.

The screenshot shows the "Lifecycle" configuration dialog. It includes a descriptive text block about managing object lifecycles, a note that "Versioning is currently enabled on this bucket", and a section for adding a new rule. The "Add rule" button is highlighted with a red box. At the bottom right are "Save" and "Cancel" buttons.

4. Select **A Prefix** and enter **documents/** as the prefix to specify the subset of objects to which the rule applies, and then click **Configure Rule**. (In our example, entering "documents/" will apply the rule to all objects in the bucket's "documents" folder.)

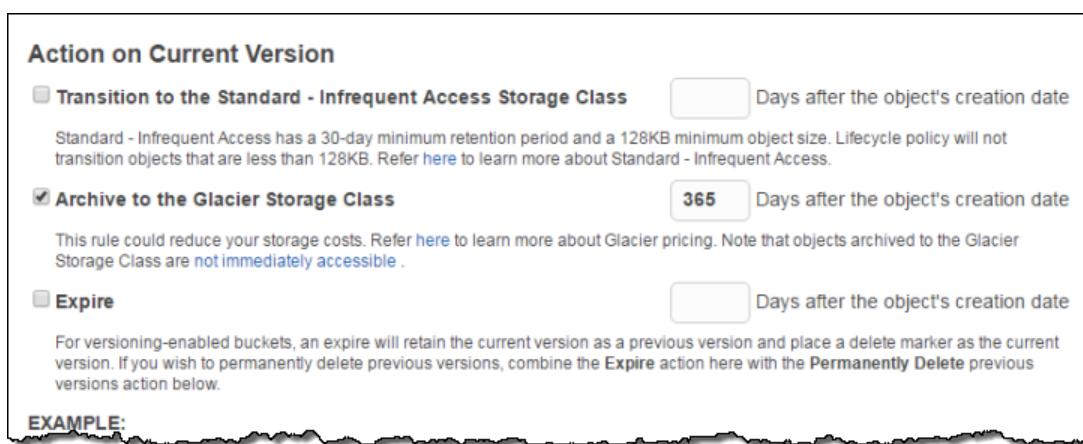
For more information about key name prefixes and how they map to folders, go to [Object Keys](#) in the Amazon Simple Storage Service Developer Guide.

If you selected **Whole Bucket** the rule would apply to all objects in the bucket.



5. Configure the rule describing actions for both current and noncurrent (previous) object versions.
 - a. In the **Action on Current Version** section select the **Archive to the Glacier Storage Class** and specify 365 days.

Verify that the illustration in the **EXAMPLE** section match how you want your rule to work.



- b. Actions selected in the **Action on Previous Versions** section occur according to the specified number of days *after* the object becomes noncurrent.
Select **Transition to the Standard-Infrequent access Storage Class** and enter 30 days, and then select **Archive to the Glacier Storage Class** and enter 60 days.

Select **Permanently Delete** and enter 425 days and then select **Remove expired object delete marker**. Amazon S3 will remove an expired object delete marker no sooner than 48 hours after the object expired.

Important

Selecting **Permanently Delete** will not remove incomplete multipart uploads. You must select **End and Clean up Incomplete Multipart Uploads** as described in the next step to have incomplete multipart uploads removed.

Verify that the illustration in the **EXAMPLE** section matches how you want your rule to work.

Action on Previous Versions

Transition to the Standard - Infrequent Access Storage Class 30 Days after becoming a previous version

Standard - Infrequent Access has a 30-day minimum retention period and a 128KB minimum object size. Lifecycle policy will not transition objects that are less than 128KB. Refer [here](#) to learn more about Standard - Infrequent Access.

Archive to the Glacier Storage Class 60 Days after becoming a previous version

This rule could reduce your storage costs. Refer [here](#) to learn more about Glacier pricing. Note that objects archived to the Glacier Storage Class are not immediately accessible.

Permanently Delete 425 Days after becoming a previous version

This rule will permanently delete a previous version of an object as the version becomes eligible for expiration. You cannot recover permanently deleted versions of objects.

Remove expired object delete marker

This rule will remove the delete marker of an expired object if all previous versions of the object have been permanently deleted. [Learn more](#).

EXAMPLE:

- c. It is a recommended best practice to select **End and Clean up Incomplete Multipart Uploads**. For our example, enter 7 for the number of days after the multipart upload initiation date that you want to end and clean up any multipart uploads that have not completed. Then choose **Review**.

Action on Incomplete Multipart Uploads

End and Clean up Incomplete Multipart Uploads 7 Days after an upload initiation date

This rule will end and clean up multipart uploads that are not completed within a predefined number of days after initiation. [Learn more](#).

Cancel **< Set Target** **Review >**

For more information about multipart uploads, see [Multipart Upload Overview](#) in the *Amazon Simple Storage Service Developer Guide*.

6. Review and name your rule.
- (Optional) You can give your rule a name to identify the rule, if you want. The name must be unique within the bucket. By default, Amazon S3 will generate a unique identifier for the rule.
 - Choose **Edit** next to **Rule Target** or **Rule Configuration** if you want to make changes.
 - Choose **Create and Activate Rule** when all of the settings are as you want them.

Rule Name

Choose a descriptive name for your rule so you can easily identify it in the future. If you do not want to enter a name now, we will generate one for you.

Rule Name: (Optional)

Rule Target

[Edit](#)

This rule will apply to Objects with the prefix: **documents/** in the **example-bucket-versioning-on** bucket

Rule Configuration

[Edit](#)

Action on Current Version

Archive to the Glacier Storage Class **365** days after the object's creation date.

This rule could reduce your storage costs. Refer [here](#) to learn more about Glacier pricing. Note that objects archived to the Glacier Storage Class are [not immediately accessible](#).

Action on Previous Versions

Transition to the Standard - Infrequent Access Storage Class **30** days after overwrite/expiration date.

Archive to the Glacier Storage Class **60** days after overwrite/expiration date.

This rule could reduce your storage costs. Refer [here](#) to learn more about Glacier pricing. Note that objects archived to the Glacier Storage Class are [not immediately accessible](#).

Permanently Delete **425** days after overwrite/expiration date.

This rule will permanently delete a previous version of an object as the version becomes eligible for expiration. You cannot recover permanently deleted versions of objects.

Remove expired object delete marker

This rule will remove the delete marker of an expired object if all previous versions of the object have been permanently deleted.

Action on Incomplete Multipart Uploads

End and Clean up Incomplete Multipart Uploads **7** days after an upload initiation date.

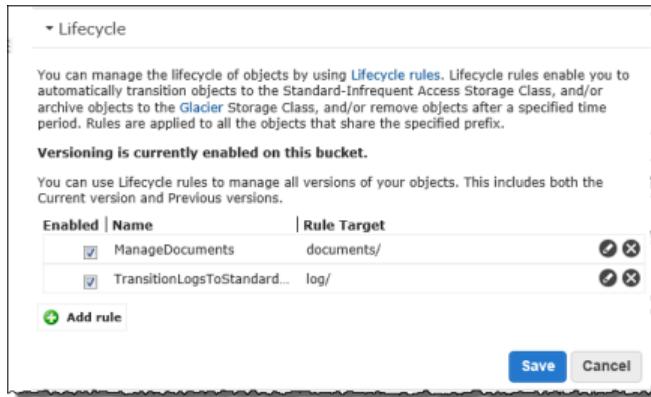
This rule will end and clean up multipart uploads that are not completed within a predefined number of days after initiation.

[Cancel](#)

[< Configure Rule](#)

[Create and Activate Rule](#)

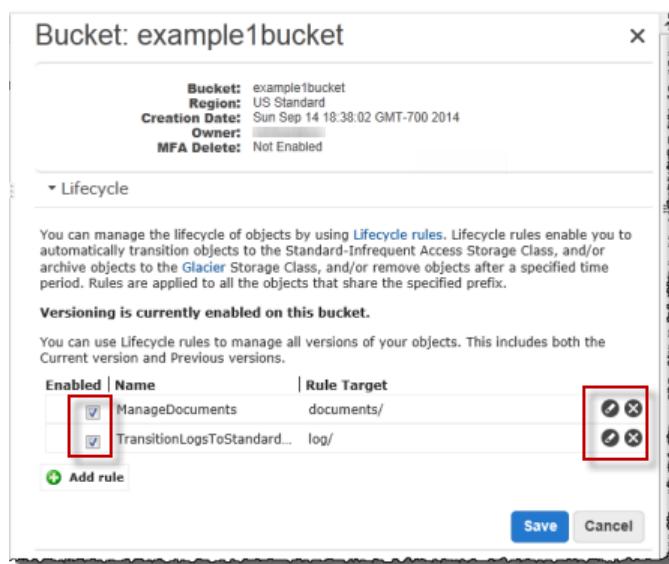
7. If the rule does not contain any errors, it is displayed in the **Lifecycle** pane.



For information on modifying, disabling, or deleting an existing lifecycle configuration rule, see [Maintaining Lifecycle Configuration Rules \(p. 39\)](#).

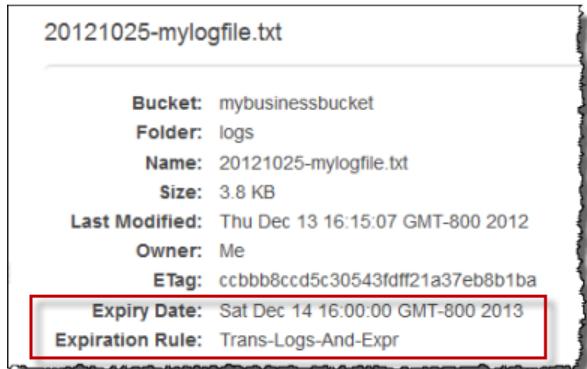
Maintaining Lifecycle Configuration Rules

The **Lifecycle** pane of the bucket **Properties** show the lifecycle rules that you have configured on the bucket.

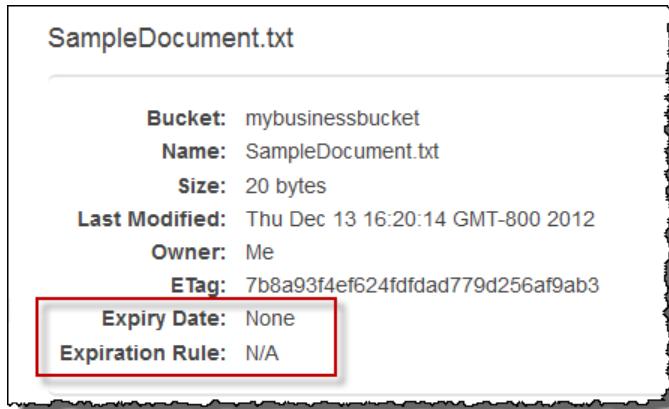


You can edit a rule or delete a rule. Also, you can disable a rule by clearing the check box next to the rule. When a rule is disabled, Amazon S3 does not perform any actions defined in the rule.

If you have configured a lifecycle rule on a bucket to expire objects in that bucket, each object that the rule applies will have its object properties display the date when the object will expire and the lifecycle rule that has set the expiration action on the object, as shown in the following screen shot.



When the object is not configured to expire by any lifecycle rule, the console displays the following:



Managing Cost Allocation Tagging

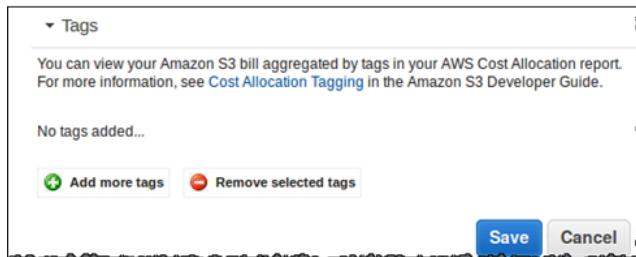
With AWS cost allocation, you can use tags to annotate billing for your use of a bucket. A tag is a key-value pair that represents a label that you assign to a bucket. In your AWS bill, costs are organized by tags that you define.

As a billing resource, a bucket can have as many as ten tags. In the following example, we'll create a tag that associates the bucket with a particular project. For information about cost allocation tagging, go to [Cost Allocation](#) in the *Amazon Simple Storage Service Developer Guide*.

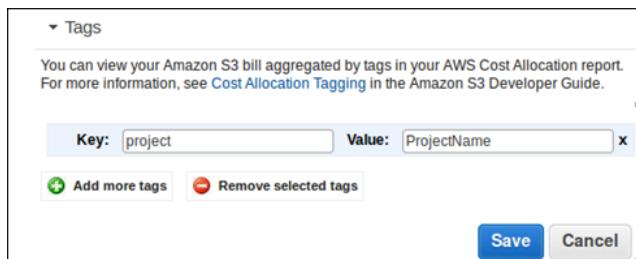
This section explains how to add and remove cost allocation tags for a bucket.

To add a cost allocation tag

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. In the Buckets list, click the bucket name, and then click **Tags**.



3. Click **Add more tags**.
4. In the **Key** and **Value** boxes, type a key name and a value.

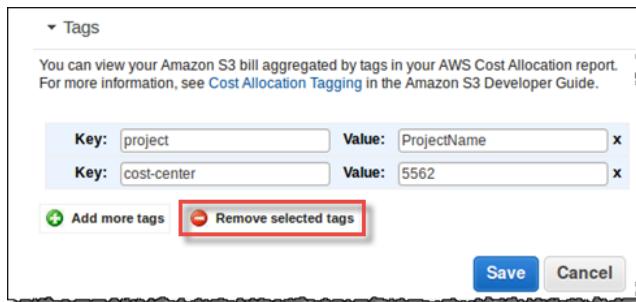


5. Click **Save**.

If there is an issue with a tag, an error message is displayed with information about the issue. For example, if the key-value pair is already in use or a key is missing its associated value, an error message is displayed, and the tag will not be saved.

To delete a cost allocation tag

1. In the Buckets list, click the bucket name, and then click **Tags**.
2. Select one or more tags to delete and click **Remove selected tags**. To select multiple tags, select one tag, and then either press the **Shift** key and drag to select multiple tags or hold down the **Ctrl** key while you click additional tags. The following example shows two tags selected.



- You can also click the **x** to the right of a tag's **Value** field to delete just that tag.
3. Click **Save**.

Managing Cross-Region Replication

Cross-region replication is the automatic, asynchronous copying of objects across buckets in different AWS regions. By activating cross-region replication, Amazon S3 will replicate newly created objects,

object updates, and object deletions from a source bucket into a destination bucket in a different region. Cross-region replication has specific requirements that define what can and cannot be replicated across regions based on how the object is created and how it is encrypted. For more information, see [Cross-Region Replication](#) the *Amazon Simple Storage Service Developer Guide*.

Topics

- [Enable Cross-Region Replication \(p. 42\)](#)
- [Disable or delete Cross-Region Replication \(p. 44\)](#)

Enable Cross-Region Replication

In this section, you'll learn how to enable cross-region replication in the Amazon S3 console.

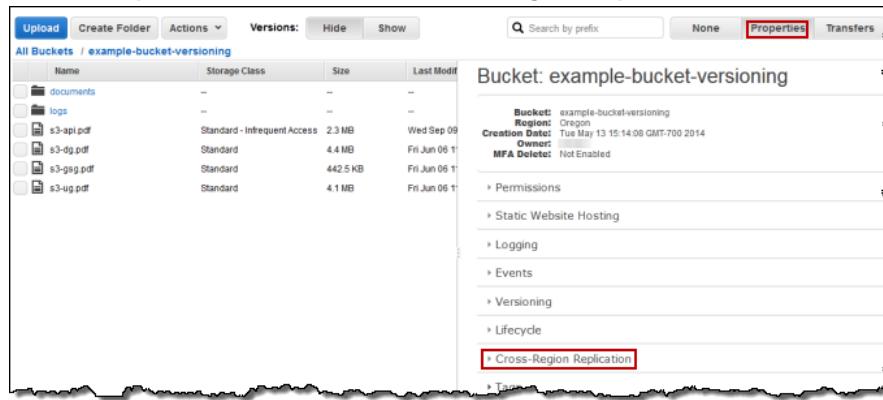
To enable cross-region replication between buckets

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Cross-region replication requires that versioning is enabled on both your source bucket and your destination bucket in a different region. For more information, see [Enabling Bucket Versioning \(p. 27\)](#).

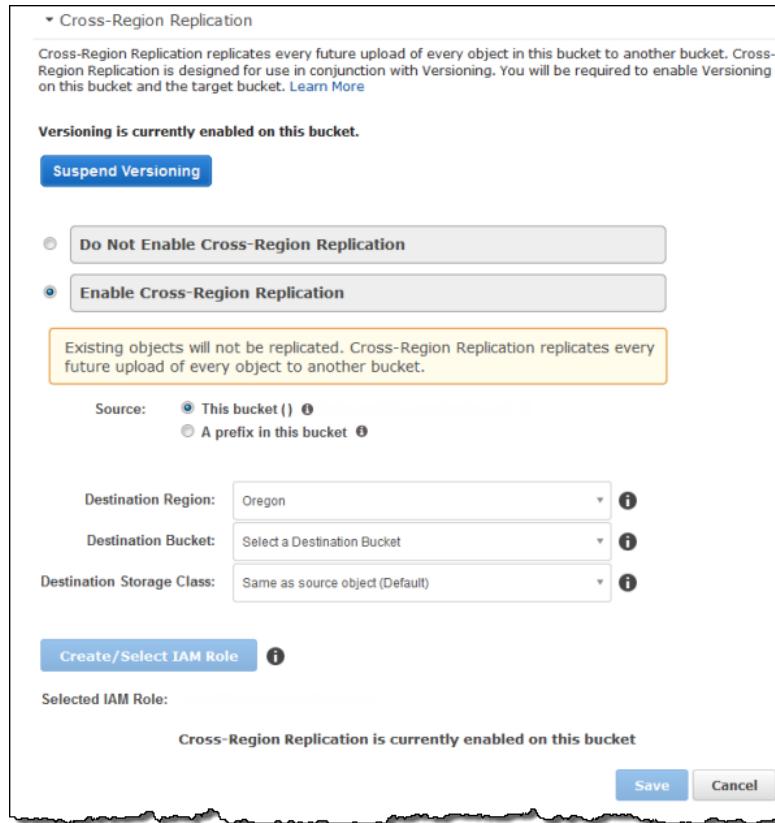
Important

If you have an object expiration lifecycle policy in your non-versioned bucket and you want to maintain the same permanent delete behavior when you enable versioning, you must add a noncurrent expiration policy. The noncurrent expiration lifecycle policy will manage the deletes of the noncurrent object versions in the version-enabled bucket. (A version-enabled bucket maintains one current and zero or more noncurrent object versions.) For more information, see [Lifecycle Configuration for a Bucket with Versioning \(p. 34\)](#).

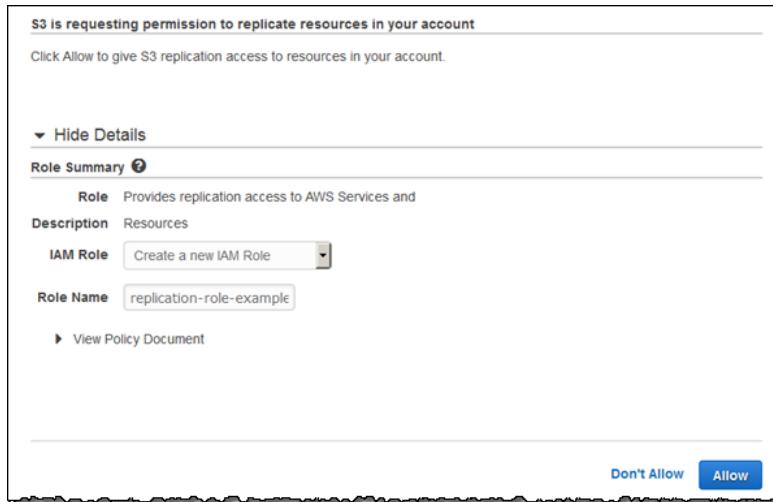
3. In the **Buckets** list, choose the bucket for which you want to enable cross-region replication, choose **Properties**, and then choose **Cross-Region Replication**.



4. Choose **Enable Cross-Region Replication**.



5. Choose the **Source**—either the entire bucket or a prefix within the bucket.
 6. Choose the **Destination Region** from the drop-down list.
 7. Choose the **Destination Bucket** from the drop-down list. If you do not see your desired destination bucket in the list, confirm that the bucket exists in the region you selected above, and that you have enabled versioning on that bucket. If no buckets exist in that region and you click **Create a new bucket** from the list, you'll be prompted to create a new bucket with versioning enabled in that destination region.
 8. Optionally choose the **Destination Storage Class** from the drop-down list.
- Amazon S3 uses this storage class when creating object replicas. By default CRR uses the same storage class as the source object.
9. In order to perform cross-region replication of objects on your behalf, Amazon S3 will need to use an IAM role that you have created. Click **Create/Select IAM Role** and a new browser tab will open up within the AWS Identity and Access Management (IAM) console.



On this page, you'll select an existing IAM role or create a new one that will allow Amazon S3 to replicate objects from the source bucket to the destination bucket on your behalf. By default, Amazon S3 will generate a policy document for the IAM role that matches the source and destination buckets you've chosen. To continue, click **Allow** to return to the Amazon S3 console. For more information about IAM roles, see [IAM Roles](#) in the *IAM User Guide*.

10. Choose **Save**.

You have now enabled cross-region replication between two buckets. The time it takes for Amazon S3 to replicate an object depends on the object size. For large objects, it can take up to several hours.

Note

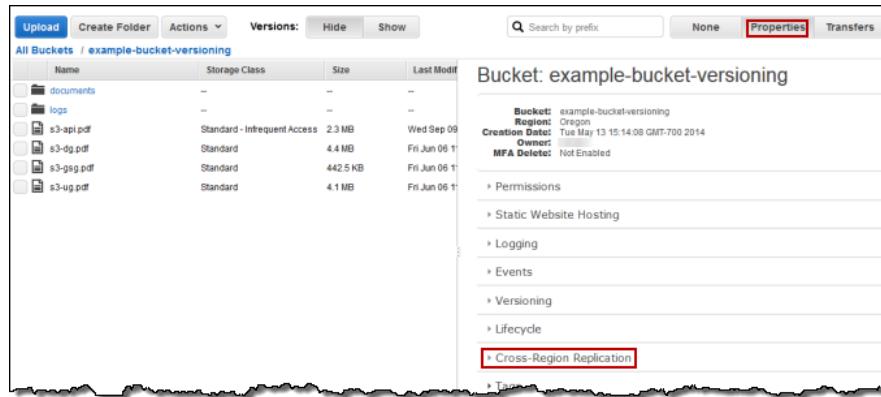
Metadata for an object remains identical between original objects and replica objects. Lifecycle rules abide by the creation time of the original object, and not by when the replicated object became available in the destination bucket. However, lifecycle actions on objects pending replication will not resolve until the replication has completed.

Disable or delete Cross-Region Replication

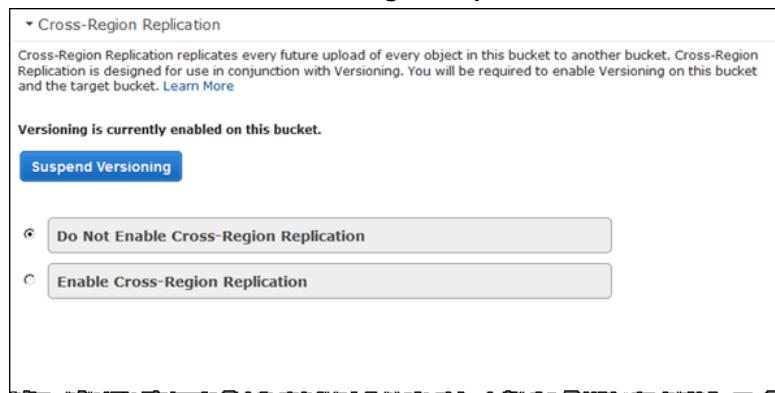
In this section, you'll learn how to disable cross-region replication in the Amazon S3 console. The configuration for cross-region replication can be partially deleted, in the case of removing prefixes, or fully disabled.

To fully disable cross-region replication between two buckets in the Amazon S3 console

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. In the **Buckets** list, choose the bucket for which you want to disable cross-region replication, choose **Properties**, and then choose **Cross-Region Replication**.



3. Choose Do Not Enable Cross-Region Replication.

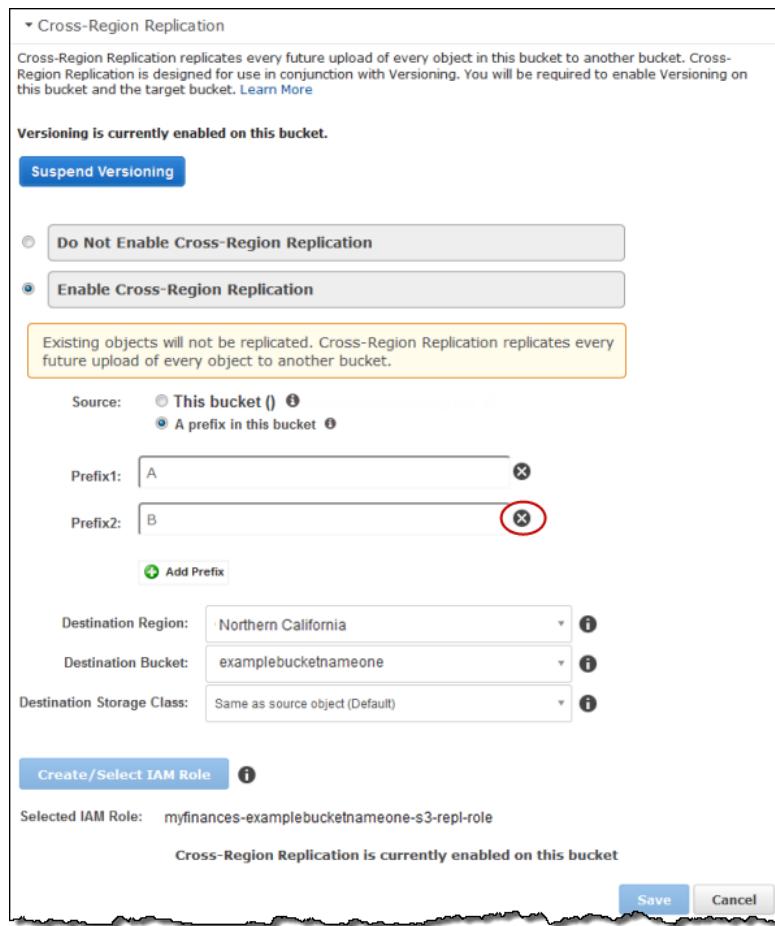


4. Choose Save.

This action fully disables cross-region replication between two buckets. The previous cross-region replication configuration is not deleted, but disabled, and you can re-enable that configuration at any time by choosing **Enable Cross-Region Replication** and then choosing **Save**.

To partially delete the cross-region replication configuration between two buckets by removing prefixes

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. In the **Buckets** list, choose your source bucket, choose **Properties**, and then choose **Cross-Region Replication**.
3. Choose the delete icon next to the prefix that you want to remove from the cross-region replication configuration.



4. Choose **Save**.

This action deletes the prefix from the configuration for cross-region replication for these two buckets. This means that all objects with that prefix will no longer be replicated across regions.

Note

If you delete all the prefixes from your cross-region replication configuration in the Amazon S3 console, then the Amazon S3 console assumes that you want to enable cross-region replication on every object in the source bucket. That means that every newly created object, object update, and object deletion in the source bucket will be replicated into the destination bucket, regardless of prefix.

You can't suspend versioning on your buckets until the replication configuration is deleted. The Amazon S3 console allows you to disable replication, but it will not delete it. You can delete your cross-region replication configuration using the following AWS Command Line Interface (CLI) command.

```
aws s3api delete-bucket-replication --bucket BUCKETNAME
```

For information about using the CLI, go to [Getting Set Up with the AWS Command Line Interface](#) in the [AWS Command Line Interface User Guide](#).

Working with Objects

Objects are the data that you store in Amazon S3. Every object resides within a bucket you create in specific AWS region.

Objects stored in a region never leave the region unless you explicitly transfer them to another region. For example, objects stored in the EU (Ireland) region never leave it. The objects stored in an Amazon S3 region physically remain in that region. Amazon S3 does not keep copies or move it to any other region. However, you can access the objects from anywhere, as long as you have necessary permissions.

Before you can upload an object into Amazon S3, you must have write permissions to a bucket.

Objects can be any file type: images_backup, data, movies, etc. An object can be as large as 5 TB. You can have an unlimited number of objects in a bucket.

This section explains how to use the console to create, manage, and delete objects.

Topics

- [Uploading Objects into Amazon S3 \(p. 47\)](#)
- [Editing Object Properties \(p. 55\)](#)
- [Searching for Objects by Prefix \(p. 63\)](#)
- [Opening an Object \(p. 64\)](#)
- [Downloading an Object \(p. 65\)](#)
- [Copying an Object \(p. 66\)](#)
- [Renaming an Object \(p. 68\)](#)
- [Deleting an Object \(p. 69\)](#)
- [Restoring an Object \(p. 69\)](#)
- [Managing Objects in a Versioning-Enabled Bucket \(p. 73\)](#)

Uploading Objects into Amazon S3

When you upload a folder, Amazon S3 uploads all the files and subfolders from the specified folder to your bucket. It then assigns a key value that is a combination of the uploaded file name and the

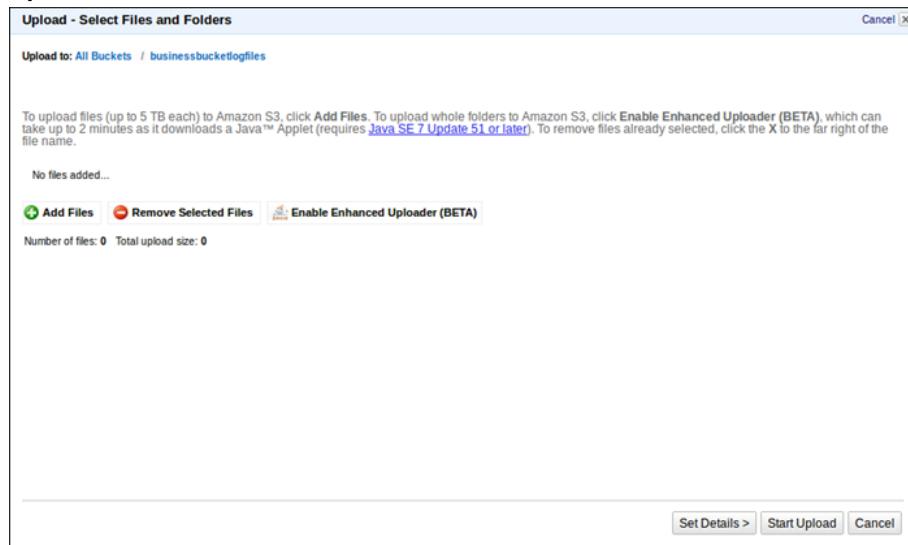
folder name. For example, if you upload a folder `/images` containing two files, `sample1.jpg` and `sample2.jpg`, Amazon S3 uploads the files and then assigns the corresponding object key names `images/sample1.jpg`, and `images/sample2.jpg`. Note that the key names include the folder name as a prefix.

If you upload one or more files that are not in a folder, Amazon S3 uploads the files and assigns the file names as the key values for the objects created.

This section explains how to use the AWS Management Console to upload one or more files or entire folders into Amazon S3. Amazon S3 stores all files in the specified bucket.

To upload files and folders into Amazon S3

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. In the buckets list, click the name of bucket where you want to upload an object and then click **Upload**.



3. (Optional) In the **Upload - Select Files** wizard, if you want to upload an entire folder, click **Enable Enhanced Uploader** to install the necessary Java applet. After you choose the Enhanced Uploader, if the uploader is not ready to use after two minutes, you might need to change your platform (Windows or Mac) or browser configuration to get the Java applet to work. For instructions on changing your platform and browser configuration, see [Using the Enhanced Uploader \(p. 53\)](#).

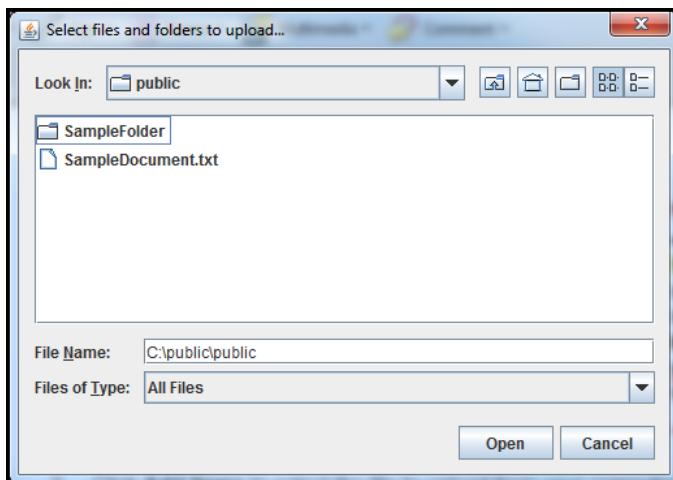
You only need to do this step once per console session. After you click **Enable Enhanced Uploader** and then don't want to use it, you can either refresh the browser, or close and reopen the browser to reset the uploader to the default.

The Enhanced Uploader uses a Java applet.

Note

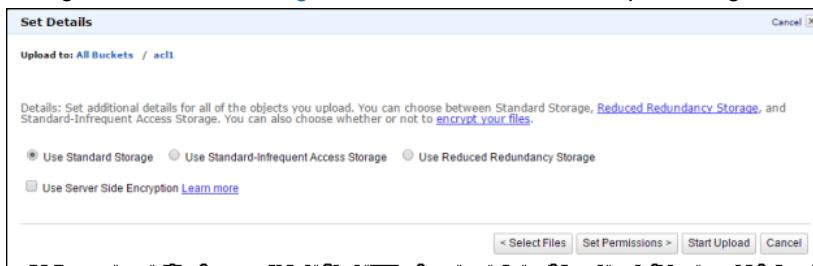
If you are behind a firewall, you will need to install your organization's supported proxy client for the Java applet to work.

4. Click **Add Files**.



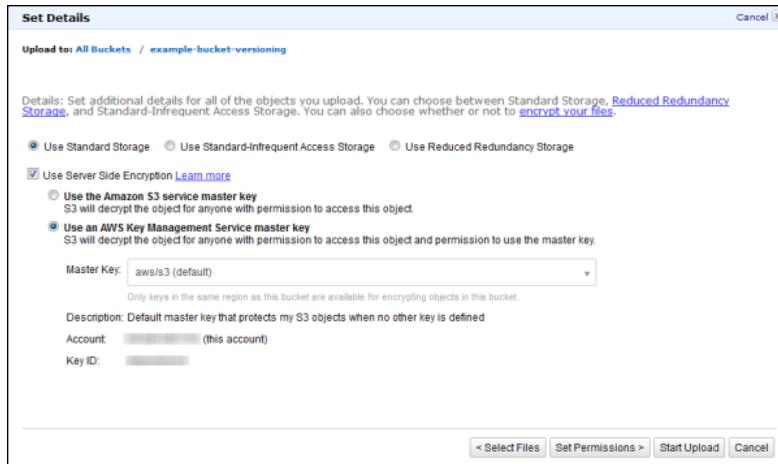
5. In the dialog box that appears, click the file or files that you want to upload, and then click **Open**.
 - If you enabled the advanced uploader in step 2, you see a Java dialog box titled **Select files and folders to upload**, as shown.
 - If not, you see the **File Upload** dialog box associated with your operating system.
6. If you are ready to upload the object immediately, without providing further details about the object, click **Start Upload**. Otherwise, click **Set Details**.
7. The **Set Details** dialog box gives you the options to set the storage class and choose whether to encrypt your object with server side encryption (SSE).

Each object in Amazon S3 has a storage class associated with it. For information on Amazon S3 storage classes, see [Storage Classes in the Amazon Simple Storage Service Developer Guide](#).



When using server-side encryption (SSE) Amazon S3 encrypts your data at the object level as it writes it to disks in its data centers and decrypts it for you when you access it. For more information about using SSE in Amazon S3 go to [Protecting Data Using Server-Side Encryption](#) in the *Amazon Simple Storage Service Developer Guide*.

- a. If you select **Use Server Side Encryption** you have two SSE options; **Use the Amazon S3 service master key** or **Use an AWS Key Management Service master key**.



Selecting the AWS Key Management Service option enables you to select the **Master Key** from a dropdown list with the following options:

- **aws/s3 (default)**— This is the default AWS KMS master key.
- **Enter a key ARN**— You can give external accounts the ability to use this object protected by a AWS KMS key. To do this, you'll need to provide the Amazon Resource Name (ARN) for the external account in the **ARN / ID** field. Administrators of an external account that have usage permissions to an object protected by your AWS KMS key can further restrict access by creating a resource-level IAM policy. The other options in this dropdown list are all AWS KMS master keys that you have previously created. For more information about creating a AWS KMS key, go to [Creating Keys in the AWS Key Management Service Developer Guide](#).

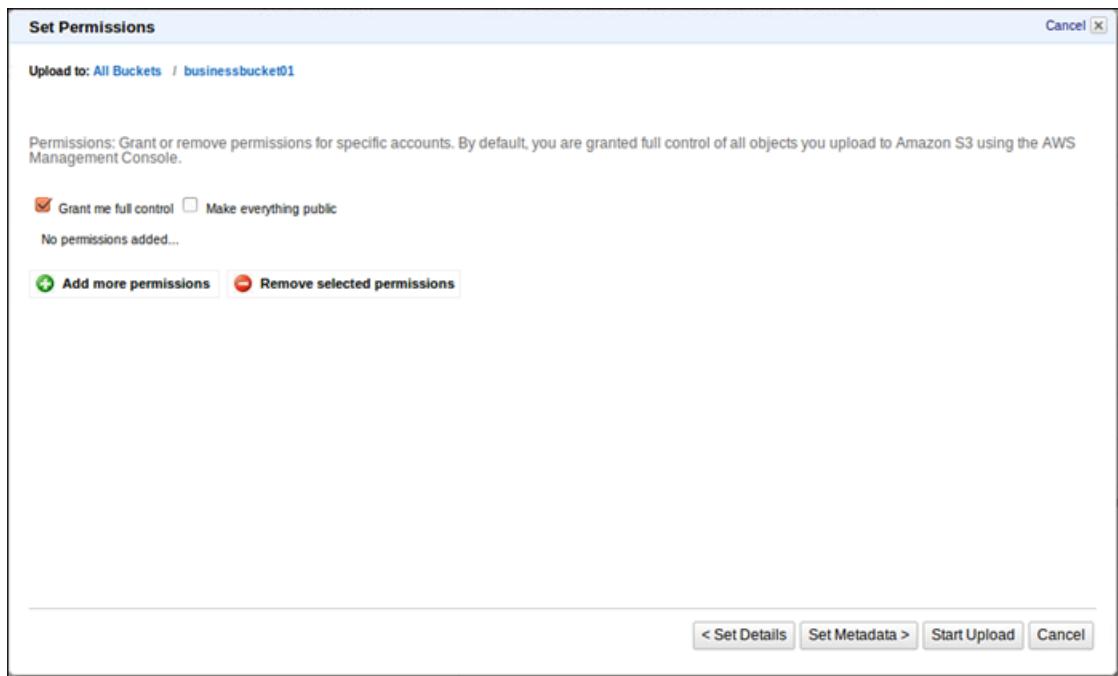
Note

Only keys in the same region as this bucket are available for encrypting objects in this bucket.

- b. When you've finished setting the object details, click **Set Permissions**.
8. In the **Set Permissions** dialog box, do the following:
 - Select (the default) or clear the **Grant me full control** check box.
 - To grant read access to anonymous requests, select the **Make everything public** check box on the **Upload - Set Permissions** panel. By default, the check box is cleared, so no access is granted.

Note

By default, the owner of the upload has full control over all uploaded objects.



9. To grant access to other users and groups for the objects you are uploading, click **Add more permissions**.

In the grantee row that appears:

- For each permission you grant, an entry is made in the object's Access Control List (ACL). For more information, see [Using ACLs](#) in the *Amazon Simple Storage Service Developer Guide*.
- If you click **Add more permissions**, a new **Grantee** row appears. Each **Grantee** row maps to a grant in the Access Control List (For more information, see [Using ACLs](#)) associated with the object. You can grant permission to a user or one of the predefined Amazon S3 groups.

10. There are built-in groups that you can choose from the **Grantee** box:

- **Everyone**—Use this group to grant anonymous access.
- **Authenticated Users**—This group consists of any user that has an Amazon AWS Account. When you grant the Authenticated User group permission, any valid signed request can perform the appropriate action. The request can be signed by either an AWS Account or IAM User.
- **Log Delivery**—This group grants write access to your bucket when the bucket is used to store server access logs. For more information, see [Managing Bucket Logging](#).
- **Me**—This group refers to your AWS root account, and not an IAM user.

You can grant permission to an AWS account by entering the accounts canonical user ID or email address in the **Grantee** field. The email address must be the same one they used when signing up for an AWS account. You can grant a grantee any of the following permissions:

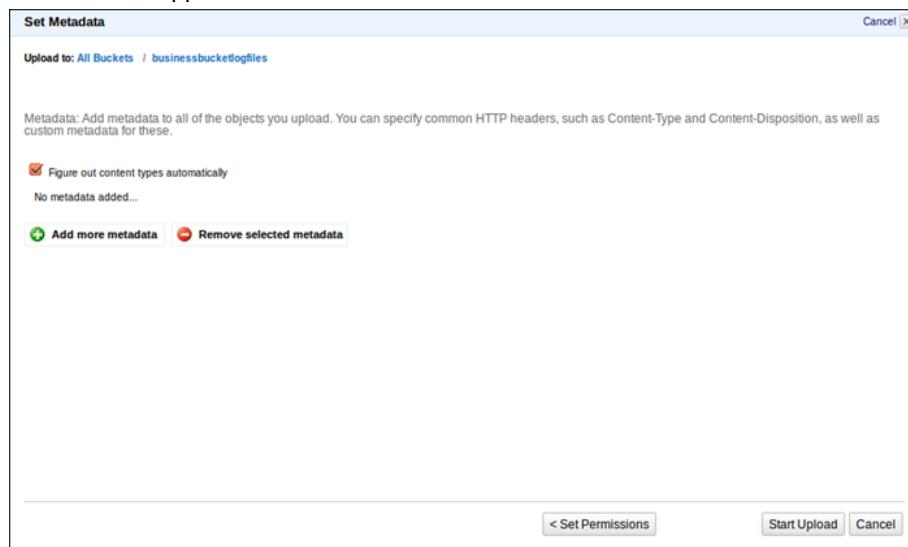
- **Open/Download**—Enables the account to access the object when they are logged in
- **View Permissions**—Can view the permissions associated with the object
- **Edit Permissions**—Can edit the permissions associated with the object

11. To set metadata, click **Set Metadata**.

In the **Upload - Set Metadata** do the following:

- a. If you want the Amazon S3 to infer the content type of the uploaded objects, select the **Figure out content types automatically** check box (default).
- b. To add custom metadata, click **Add more metadata** and enter the key-value pairs that you want.

Amazon S3 object metadata is represented by a key-value pair. User metadata is stored with the object and returned when you download the object. Amazon S3 does not process custom metadata. Custom metadata can be as large as 2 KB, and both the keys and their values must conform to US-ASCII standards. Any metadata starting with prefix `x-amz-meta-` is treated as user-defined metadata. When you add user-defined metadata, select `x-amz-meta-` from the **Key** box and then append the metadata name to it.



12. Click **Start Upload**.

You can watch the progress of the upload from within the **Transfers** panel.

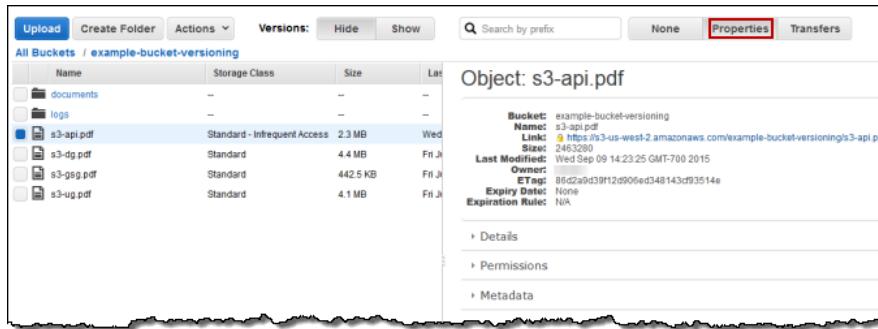
Tip

To hide the **Transfer** panel, click **None**. To open it again, click **Transfers**.

When objects upload successfully to Amazon S3, they appear in the Objects and Folders list.

To view file content and properties

- Do either or both of the following:
 - To view the file content, in the Objects and Folders list, double-click the object.
 - To view object properties, in the Objects and Folders list, choose the object and then choose **Properties**.



Note

By default your Amazon S3 resources are private. Only the object owner can click the object link and view the object. If you share this link with others, for example add this link to your web pages, Amazon S3 will deny access. The clickable links on your webpage will work only if you make the object public (see [Editing Object Permissions \(p. 59\)](#)) or you use a pre-signed URL for the clickable link. For more information about pre-signed URL, go to [Share an Object with Others](#) in the *Amazon Simple Storage Service Developer Guide*.

Using the Enhanced Uploader

The Enhanced Uploader uses a Java applet. After you choose the Enhanced Uploader, if the uploader is not ready to use after two minutes, you might need to change your platform (Windows or Mac) or browser configuration to get the Java applet to work. The instructions in this section describe how to make these changes depending on which platform and browser you are using.

Topics

- [Using the Enhanced Uploader in Microsoft Windows \(p. 53\)](#)
- [Using the Enhanced Uploader on the Mac \(p. 54\)](#)

Using the Enhanced Uploader in Microsoft Windows

You need to enable Java in a browser before you can use the Enhanced Uploader on a computer running Microsoft Windows. After you enable Java, you can use the Enhanced Uploader with Internet Explorer or Mozilla Firefox on Windows.

Enable Java for Windows Browsers

Follow the instructions provided at [Launching Java Control Panel on Windows](#) to launch the Java Control Panel. Click the **Security** tab in the Java Control Panel, select **Enable Java content in the browser**, and then click **Apply**. Restart the browser and follow the browser specific steps in the following sections.

Using the Enhanced Uploader with Internet Explorer

This section describes how to use the Enhanced Uploader in Internet Explorer.

To use the Enhanced Uploader in Internet Explorer

1. Open Internet Explorer and sign in to the AWS Management Console at <https://console.aws.amazon.com/s3/>.
2. Click **Allow the Java(TM) plugin to run on the S3 console**, if your browser displays this message.

3. In the buckets list, click the name of bucket where you want to upload data and then click **Upload**.
4. Click **Enable Enhanced Uploader (BETA)**.
5. In the Security Warning window that asks **Do you want to run this application?**, select **I accept the risk and want to run this application** and then click **Run**.
6. Click **Add Items**.
7. If your browser displays the warning **Allow Access to the following application from this web site**, click **Allow**.
8. In the **Select files and folders to upload** window, select the files and folders that you want to upload and then click **Open**.
9. (Optional) Click **Set Details** to choose a storage class, configure encryption, set permissions, and set metadata.
10. Click **Start Upload**.

Using the Enhanced Uploader with Mozilla Firefox on Windows

This section describes how to use the Enhanced Uploader in Firefox.

To use the Enhanced Uploader in Mozilla Firefox

1. Open Firefox and sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. In the buckets list, click the name of bucket where you want to upload data and then click **Upload**.
3. Click **Enable Enhanced Uploader (BETA)**.
4. In the Security Warning window that asks **Do you want to run this application?**, select **I accept the risk and want to run this application** and then click **Run**.
5. Click **Add Items**.
6. In the **Select files and folders to upload** window, select the files and folders that you want to upload and then click **Open**.
7. (Optional) Click **Set Details** to choose a storage class, configure encryption, set permissions, and set metadata.
8. Click **Start Upload**.

Using the Enhanced Uploader on the Mac

You can use the Enhanced Uploader with Safari or Mozilla Firefox on the Mac.

Using the Enhanced Uploader with Safari on the MAC

This section describes how to use the Enhanced Uploader with Safari. You may need to operate in Safari's unsafe mode for the Enhanced Uploader to run, which is described in the following procedure.

To use the Enhanced Uploader in Safari's unsafe mode

1. Open Safari, choose **Safari > Preferences** and then click **Security**.
2. Click **Website Setting** that is next to Internet plug-ins.
3. In the plug-ins windows that is displayed, click **Java** in the left pane.
4. In the **Configured Websites** pane, expand the drop-down next to the URL for the Amazon S3 Management Console website.
5. Click **Run in Unsafe Mode** and then click **Trust** in the warning message that appears.
6. Click **Done**.

7. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
8. In the buckets list, click the name of bucket where you want to upload data and then click **Upload**.
9. Click **Enable Enhanced Uploader (BETA)**.
10. In the Security Warning window that asks **Do you want to run this application?**, select **I accept the risk and want to run this application** and then click **Run**.
11. Click **Add Items**.
12. In the **Select files and folders to upload** window, select the files and folders that you want to upload and then click **Open**.
13. (Optional) Click **Set Details** to choose a storage class, configure encryption, set permissions, and set metadata.
14. Click **Start Upload**.

Using the Enhanced Uploader with Mozilla Firefox on the Mac

This section describes how to use the Enhanced Uploader in Firefox on the Mac.

To use the Enhanced Uploader in Firefox on the Mac

1. Open Firefox and click the menu icon (three horizontal bars on the top right of the window).
2. Click **Preferences** and then click **Content**.
3. If **Block pop-up windows** is selected, clear the check box to disable it.
4. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
5. In the buckets list, click the name of bucket where you want to upload data and then click **Upload**.
6. Click **Enable Enhanced Uploader (BETA)**.
7. Click the plugin icon in the address bar and a message panel opens.
8. In the message panel, click **Allow and Remember**.
9. In the Security Warning window that asks **Do you want to run this application?**, select **I accept the risk and want to run this application** and then click **Run**.
10. Click **Add Items**.
11. In the **Select files and folders to upload** window, select the files and folders that you want to upload and then click **Open**.
12. (Optional) Click **Set Details** to choose a storage class, configure encryption, set permissions, and set metadata.
13. Click **Start Upload**.

Editing Object Properties

The properties of an object include the object details, permissions, and metadata that you set when you uploaded the object. You can edit these properties at any time.

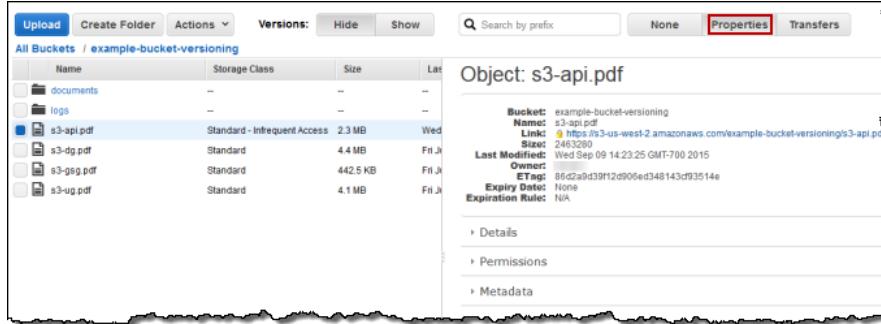
This section explains the properties of an object that you can change, which include the object's details, permissions, and metadata.

Topics

- [Editing Object Details \(p. 56\)](#)
- [Editing Object Permissions \(p. 59\)](#)
- [Editing Object Metadata \(p. 62\)](#)

To access the properties of an object

1. In the Objects and Folders list, choose the object and then choose **Properties**.



The screenshot shows the Amazon S3 console interface. On the left, there is a list of objects in a bucket named 'example-bucket-versioning'. One object, 's3-api.pdf', is selected and highlighted with a blue border. At the top of the page, there is a navigation bar with buttons for 'Upload', 'Create Folder', 'Actions', 'Versions: Hide Show', 'Search by prefix', 'None', 'Properties' (which is highlighted with a red box), and 'Transfers'. To the right of the list, a detailed view of the selected object is displayed. The object name is 's3-api.pdf'. Below it, there is a table with columns for Bucket, Name, Link, Size, and Last Modified. The table shows the following data:

Bucket	Name	Link	Size	Last Modified
example-bucket-versioning	s3-api.pdf	https://s3-us-west-2.amazonaws.com/example-bucket-versioning/s3-api.pdf	2.3 MB	Wed Sep 09 14:23:25 GMT-700 2015
	s3-dg.pdf		4.4 MB	Fri Jul 10 2015
	s3-gsp.pdf		442.5 KB	Fri Jul 10 2015
	s3-ug.pdf		4.1 MB	Fri Jul 10 2015

Below the table, there are sections for 'Details', 'Permissions', and 'Metadata'. The 'Details' section is expanded, showing the following details for the selected object:

- Bucket: example-bucket-versioning
- Name: s3-api.pdf
- Link: <https://s3-us-west-2.amazonaws.com/example-bucket-versioning/s3-api.pdf>
- Size: 2463280
- Last Modified: Wed Sep 09 14:23:25 GMT-700 2015
- Owner:
- ETag: 86d2a9d39f12d900ed348143df93514e
- Expiry Date: None
- Expiration Rule: N/A

2. Do any or all of the following:

- To edit the object details, click **Details**, and then edit the details as explained in [Editing Object Details \(p. 56\)](#).
- To edit object permissions, click **Permissions**, and then edit the permissions as explained in [Editing Object Permissions \(p. 59\)](#).
- To edit object metadata, click **Metadata**, and then edit the permissions as explained in [Editing Object Metadata \(p. 62\)](#).

When you select a single object in a bucket you can change all of its properties. When you select multiple objects, you can change only the object details.

Editing Object Details

This section explains how to use the console to edit the details of one or more selected objects. The property details of an object that you see and can change depends on the storage class of the object. For information on the Amazon S3 storage classes, see [Storage Classes](#) in the *Amazon Simple Storage Service Developer Guide*.

Topics

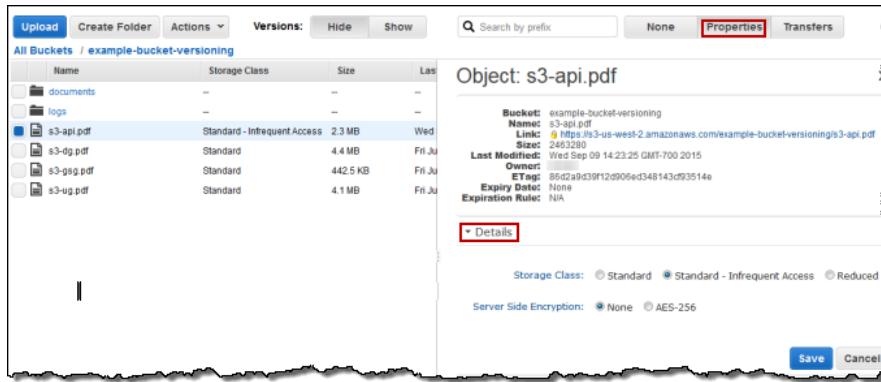
- [Editing the Details of Objects with a Storage Class of STANDARD, STANDARD_IA, or RRS \(p. 56\)](#)
- [Editing the Details of Objects with the Amazon Glacier Storage Class \(p. 57\)](#)

Editing the Details of Objects with a Storage Class of STANDARD, STANDARD_IA, or RRS

This section describes how to change the property details of an object with a storage class of STANDARD, STANDARD_IA (IA, for infrequent access), or RRS (Reduced Redundancy Storage).

To change the details of an object with a Storage Class of STANDARD, STANDARD_IA, or RRS

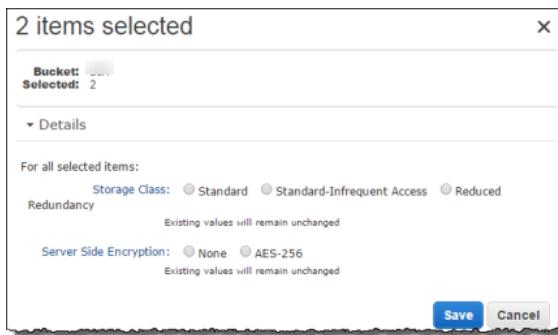
1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Choose the object you want to change the details for.



3. (Optional) To change the storage class, select the class you want to use.
4. (Optional) Change the server-side encryption (SSE) settings as needed. With server-side encryption (SSE), Amazon S3 encrypts your data at the object level as it writes the data to disks in the data centers and decrypts the data for you when you access it. For more information about using SSE in Amazon S3 go to [Protecting Data Using Server-Side Encryption](#) in the *Amazon Simple Storage Service Developer Guide*.
5. Choose **Save** to save your changes.

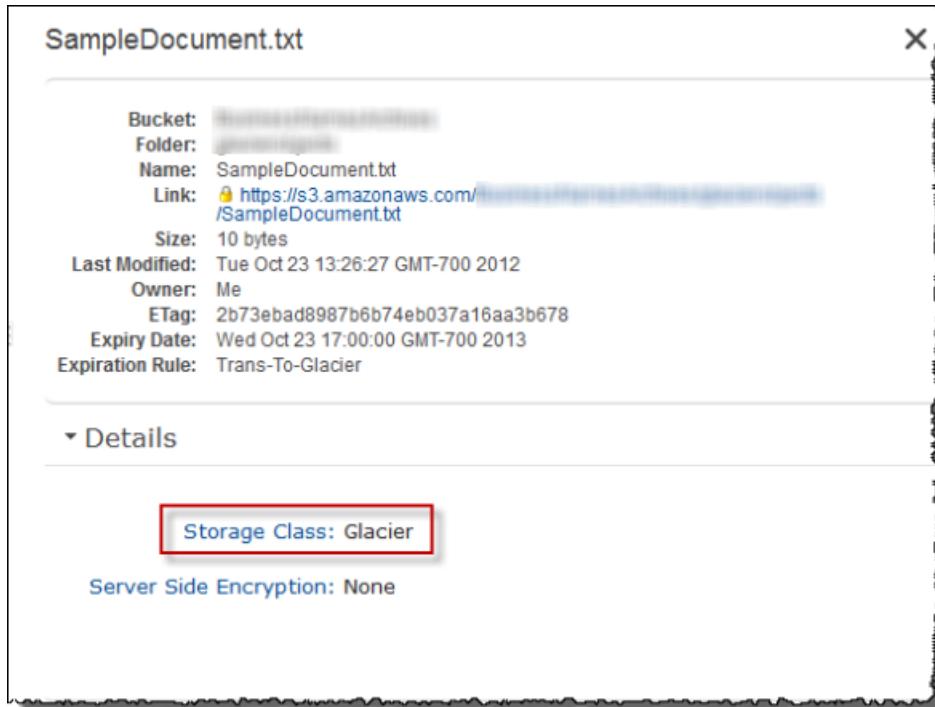
Note

When you select two or more objects in a bucket and click **Details**, no selections for the storage class or **Server Side Encryption** are shown, regardless of the settings of these properties for the files that are part of the selection. In this case where you want to select multiple objects, the **Details** panel enables you to change one of the two properties for all of the selected objects. For example, if you select **AES-256** for **Server Side Encryption** and click **Save**, all of the selected objects will be encrypted. The following example shows the details for two selected items.



Editing the Details of Objects with the Amazon Glacier Storage Class

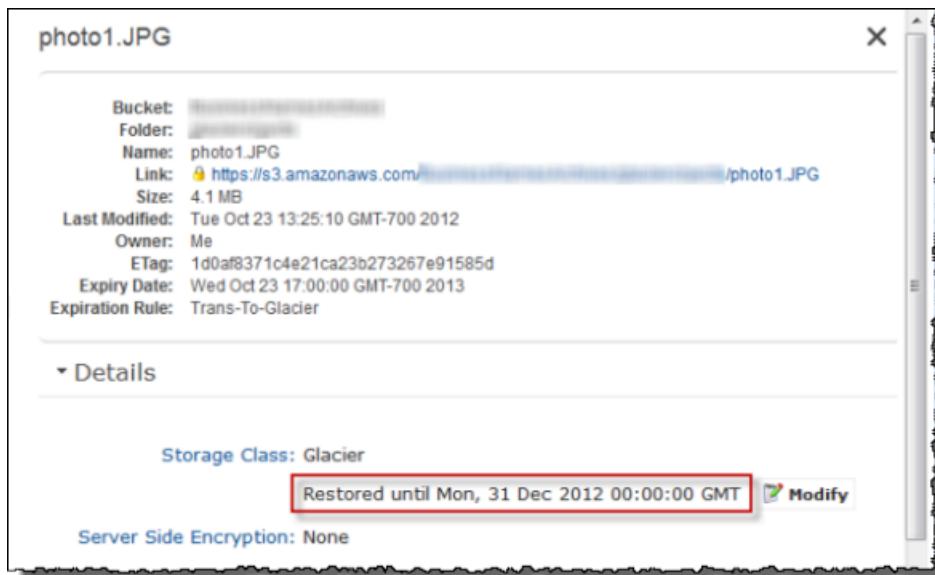
When you select an object stored in the Amazon Glacier Storage class and click **Details**, the details appear. If the object has not been restored, the properties of the object are view-only. The following example shows the details properties for an object stored in the Amazon Glacier storage class that has not been restored.



If the object is in the process of being restored, the **Details** tab indicates this. The following example shows the properties for an object stored in the Amazon Glacier storage class that is in the process of being restored. For more information about restoring, see [Restoring an Object \(p. 69\)](#).

The screenshot shows a list of objects in the Amazon S3 console. The objects are: photo1.JPG, photo2.JPG, photo3.JPG, photo4.JPG, presentation.pptx, and report.pdf. All objects are stored in the 'Glacier' storage class. The 'photo1.JPG' object is selected. On the right, the 'Details' tab is open for this object, showing the storage class is 'Glacier' and the status is 'Restoration in progress'. The 'Server Side Encryption' field shows 'None'. A 'Permissions' tab is also visible.

If the object is restored, the date until which the object is restored is displayed under **Details**. The following example shows properties of a restored object. You can use the **Modify** button to change the length of time until which the object is restored.



When you select two or more Amazon Glacier Storage Class class objects in a bucket and view the **Properties** of the selected objects, the **Properties** pane shows only the bucket name and the number of objects selected.

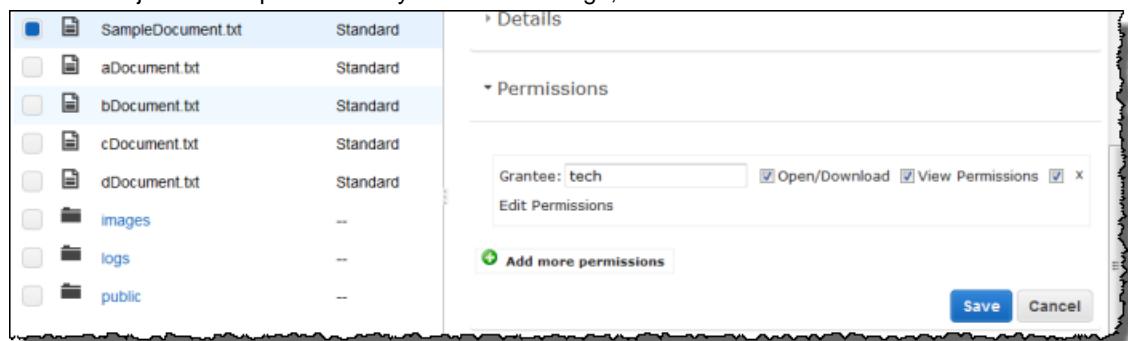
Editing Object Permissions

This section explains how to use the console to edit AWS account permissions for an object. In this topic, each permission you grant adds an entry in the Access Control List (ACL) associated with the object. You can grant permission to other AWS accounts or built-in groups. By default, the owner has full permissions.

Bucket and object permissions are completely independent; an object does not inherit the permissions from its bucket. For example, if you create a bucket and grant write access to another user, you will not be able to access that user's objects unless the user explicitly grants you access. This also applies if you grant anonymous write access to a bucket. Only the user anonymous can access objects the user created unless permission is explicitly granted to the bucket owner.

To change the permissions for an object

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Click the object whose permissions you want to change, and then click **Permissions**.



3. Do one of the following:

To...	Do this...
To add permissions for a person or group	a. Click Add more permissions . b. In the Grantee box of the new line that appears, add the name of the person or group for which you want to set permissions. The name can be the email address associated with an AWS account, a canonical ID, or one of the predefined Amazon S3 groups. For a list of predefined Amazon S3 Groups, go to Who is a Grantee in the <i>Amazon Simple Storage Service Developer Guide</i> . You can add as many as 100 grantees. c. Select or clear the check boxes, as appropriate, next to the permissions you want to grant or deny.
To remove a person or group from the permission list	Click the "x" on the line of the grantee that you want to remove.

There are built-in groups that you can choose from the **Grantee** box:

- **Everyone**—Use this group to grant anonymous access.
- **Authenticated Users**—This group consists of any user that has an Amazon AWS Account. When you grant the Authenticated User group permission, any valid signed request can perform the appropriate action. The request can be signed by either an AWS Account or IAM User.
- **Log Delivery**—This group grants write access to your bucket when the bucket is used to store server access logs. For more information, see [Managing Bucket Logging](#).
- **Me**—This group refers to your AWS root account, and not an IAM user.

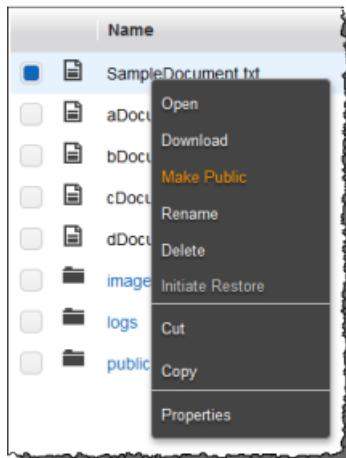
You can grant permission to an AWS account by entering the accounts canonical user ID or email address in the **Grantee** field. The email address must be the same one they used when signing up for an AWS account. You can grant a grantee any of the following permissions:

- **Open/Download**—Enables the account to access the object when they are logged in
 - **View Permissions**—Can view the permissions associated with the object
 - **Edit Permissions**—Can edit the permissions associated with the object
4. Click **Save**.

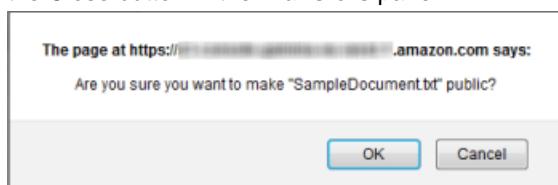
The console provides a shortcut for making objects accessible to everyone, meaning that everyone can both view and download the object.

To make an object accessible by everyone

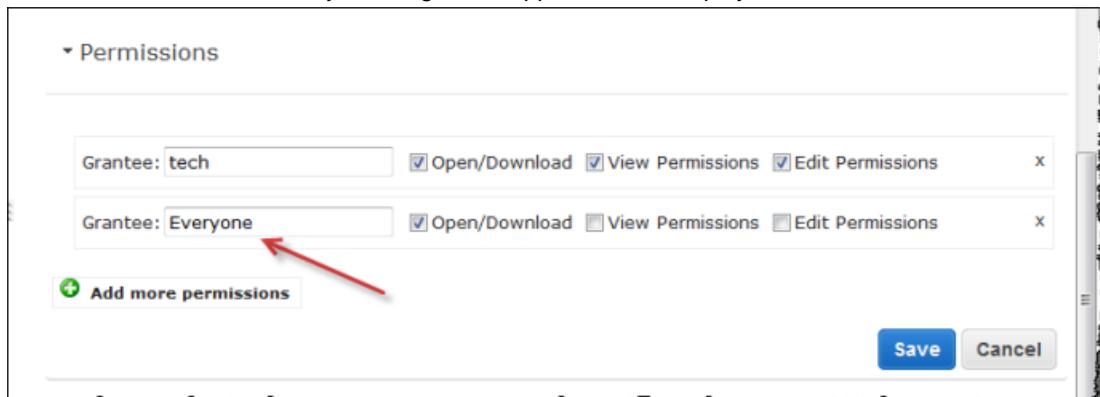
1. Right-click the object that you want to make accessible, and then click **Make Public**.



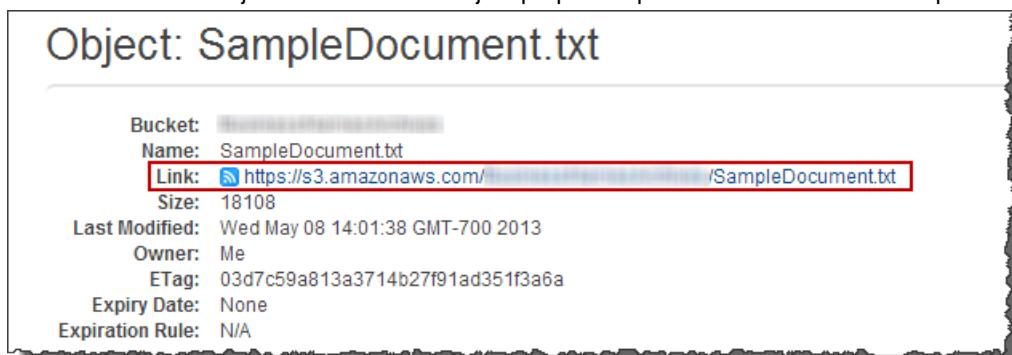
2. The console prompts you to confirm this change. Click **OK**. When the change is complete, click the Close button in the **Transfers** panel.



3. Click **Permissions**. The newly added grantee appears in the display.



4. Get the link for the object to share in the object properties pane as shown in the example below.



Editing Object Metadata

Each object in Amazon S3 has a set of key-value pairs that represents its metadata. There are two types of metadata:

- **System metadata** – Sometimes processed by Amazon S3, e.g., *Content-Type*, and *Content-Length*.
- **User metadata** – Never processed by Amazon S3.

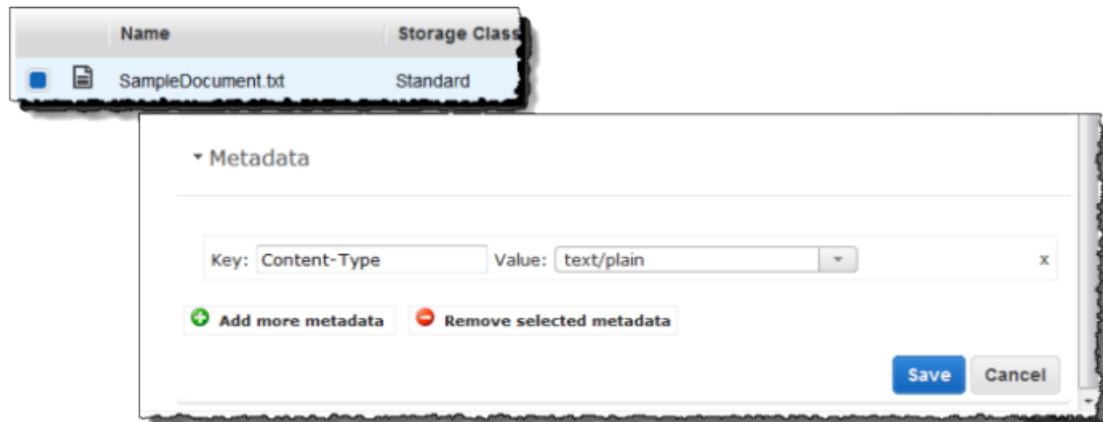
User metadata is stored with the object and returned with it.

The maximum size for user metadata is 2 KB, and both the keys and their values must conform to US-ASCII standards.

This section explains how to use the console to add and remove the metadata associated with an object.

To edit the metadata of an object

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Click the object whose metadata you want to edit, and then click **Metadata**.



3. Do one of the following:

To...	Do This...
Add metadata	<ol style="list-style-type: none">Click Add more metadata.In the Key box, click one of the available keys, or type a new one, starting with <code>x-amz-meta-</code> (for example, <code>x-amz-meta-<name></code>).In the corresponding Value box, click an entry in the list, if available, or type a value.
Delete metadata	<ol style="list-style-type: none">Click the key-value pair that you want to remove.Click Remove selected metadata, or click the "x" on the line of the key-value pair that you want to remove.

Note

User-defined metadata names must begin with "x-amz-meta-", otherwise Amazon S3 will not set the key value pair as you define it.

4. Click **Save**.

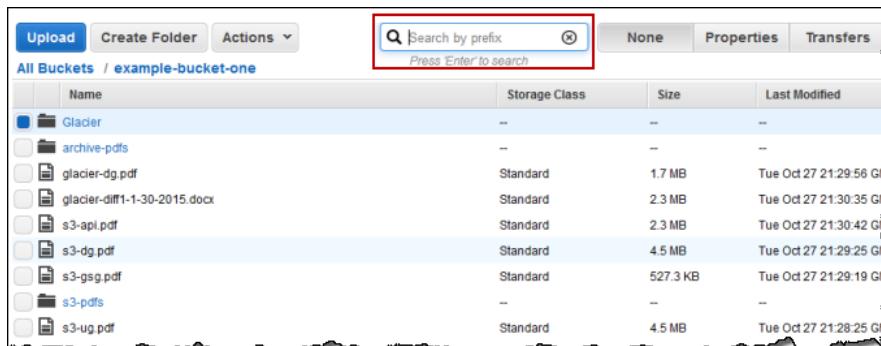
Searching for Objects by Prefix

This section explains how to use the AWS Management Console to search within a bucket or folder for objects with the same object key name prefix. For information on naming objects, go to [Object Keys](#) in the *Amazon Simple Storage Service Developer Guide*.

When using *search by prefix* the search string is case sensitive and must not contain the forward slash "/" character. Searches are scoped to objects at the root level of the bucket or to objects within a folder, not including the subfolders. For information about how Amazon S3 uses the forward slash "/" character, see [Working with Folders \(p. 75\)](#).

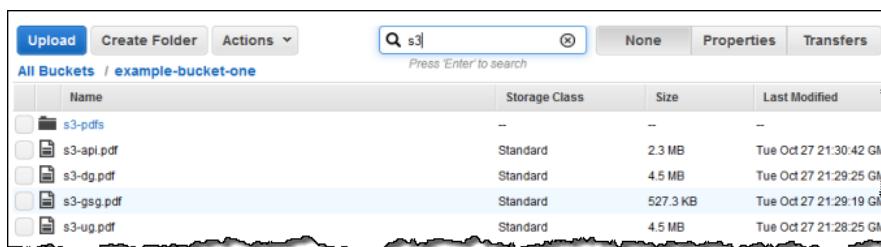
To search for objects by prefix within a bucket

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. In the **Buckets** list, choose the name of bucket that you want to search.
3. Enter the prefix you want to search for in the **Search by prefix** box and then press **Enter** or choose 



The screenshot shows the AWS S3 console interface. At the top, there's a navigation bar with 'Upload', 'Create Folder', 'Actions', and a search bar labeled 'Search by prefix' with a placeholder 'Press Enter to search'. Below the navigation bar is a table titled 'All Buckets / example-bucket-one'. The table has columns for 'Name', 'Storage Class', 'Size', and 'Last Modified'. There are several objects listed, including 'Glacier', 'archive-pdfs', and several PDF files like 'glacier-dg.pdf', 'glacier-diff1-1-30-2015.docx', etc. One row for 's3-pdf.pdf' is highlighted.

4. In the following example we type **s3** in the **Search by prefix** box and then press **Enter**. The names of the objects and folders with the prefix **s3** that are stored at the root level of the bucket are listed.



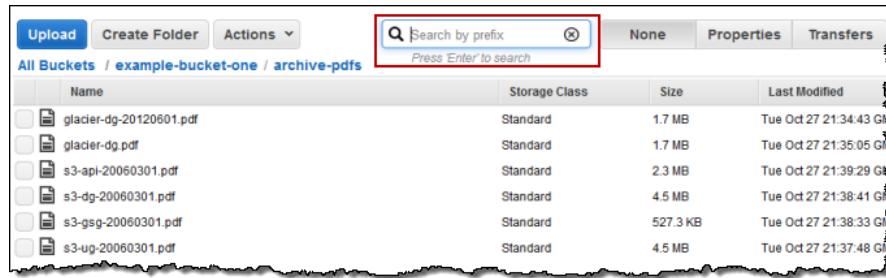
The screenshot shows the AWS S3 console interface after a search for 's3'. The search bar now contains 's3'. The table below shows the results: 's3-pdf.pdf', 's3-api.pdf', 's3-dg.pdf', 's3-gsg.pdf', and 's3-ug.pdf'. These are the objects and folders within the bucket that have the prefix 's3'.

5. Choose  to clear the search or use the bucket breadcrumb trail to return to the previous list view. To clear your search, you can also empty the search box and then press **Enter** or choose 

To search for objects by prefix within a folder

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. In the **Buckets** list, choose the name of bucket that contains the folder you want to search.

3. Choose the name of the folder that you want to search.
4. Enter the prefix you want to search for in the **Search by prefix** box and then press **Enter** or choose .



A screenshot of the Amazon S3 console. The top navigation bar includes 'Upload', 'Create Folder', 'Actions', and a search bar labeled 'Search by prefix' with a placeholder 'Press Enter to search'. Below the navigation is a breadcrumb trail: 'All Buckets / example-bucket-one / archive-pdfs'. The main area displays a table of objects:

Name	Storage Class	Size	Last Modified
glacier-dg-20120601.pdf	Standard	1.7 MB	Tue Oct 27 21:34:43 GM
glacier-dg.pdf	Standard	1.7 MB	Tue Oct 27 21:35:05 GM
s3-api-20060301.pdf	Standard	2.3 MB	Tue Oct 27 21:39:29 GM
s3-dg-20060301.pdf	Standard	4.5 MB	Tue Oct 27 21:38:41 GM
s3-gsg-20060301.pdf	Standard	527.3 KB	Tue Oct 27 21:38:33 GM
s3-up-20060301.pdf	Standard	4.5 MB	Tue Oct 27 21:37:48 GM

5. In the following example we choose the **archive-pdfs** folder and type **glacier** in the **Search by prefix** box and then press **Enter**. The names of the objects and folders with the prefix **glacier** that are stored in the folder are listed.



A screenshot of the Amazon S3 console showing a search result. The search bar contains 'glacier'. The results table shows two items:

Name	Storage Class	Size	Last Modified
glacier-dg-20120601.pdf	Standard	1.7 MB	Tue Oct 27 21:34:43 GM
glacier-dg.pdf	Standard	1.7 MB	Tue Oct 27 21:35:05 GM

6. Choose  to clear the search or use the bucket breadcrumb trail to return to the previous list view. To clear your search, you can also empty the search box and then press **Enter** or choose .



Opening an Object

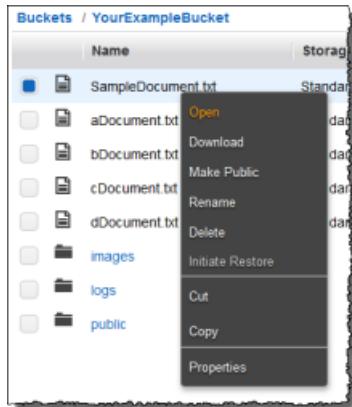
You can open an object to view it in a browser. This section explains how to use the console to open an object.

To open an object

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Right-click the object that you want to open, and then click **Open**.

Tip

You can use the **SHIFT** and **CTRL** keys to select multiple objects and perform the same action on all of them simultaneously.



Downloading an Object

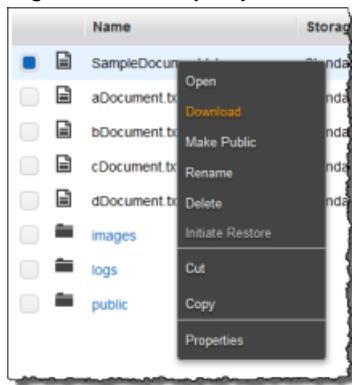
This section explains how to use the Amazon S3 console to download an object from Amazon S3 to your computer.

Note

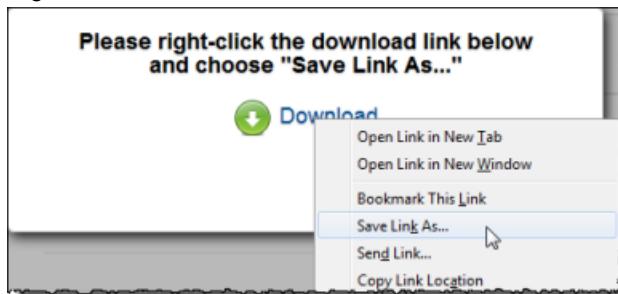
Data transfer fees apply when you download objects.

To download an object

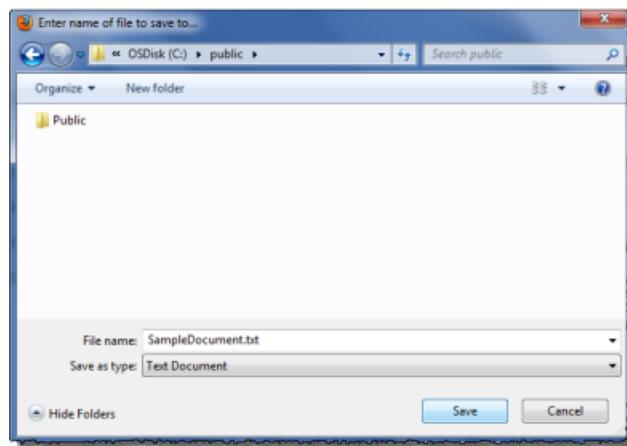
1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Right-click the object you want to download, and then click **Download**.



3. Right-click the word **Download**, and then click **Save Link As...**



4. Navigate to the folder on your system where you want to download the object, and then click **Save**.



When the download is complete, click **OK** to return to the console.



Copying an Object

You can also copy or move an object from one place to another by copying or cutting it from one place and pasting it in the new location.

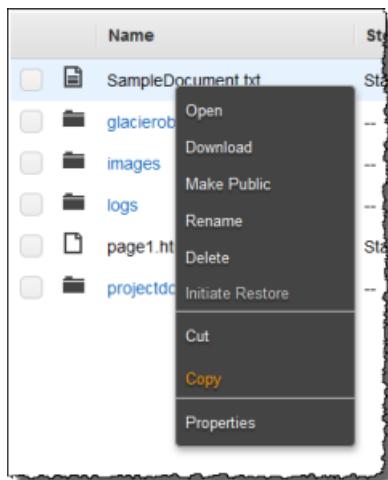
This section explains how to use the Amazon S3 console to copy an object.

Important

Copying and pasting objects protected by AWS Key Management Service (KMS) encryption keys into a new region is not supported in the Amazon S3 console. If you use the following procedure to transfer an AWS KMS protected object out of its home region, the transfer will fail. For more information on using AWS KMS encryption in Amazon S3, see [Protecting Data Using Server-Side Encryption with AWS KMS-Managed Keys \(SSE-KMS\)](#).

To copy an object

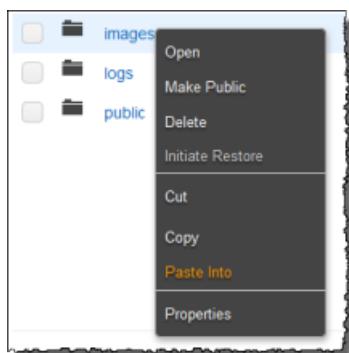
1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Right-click the object that you want to copy, and then click **Copy**.



Note

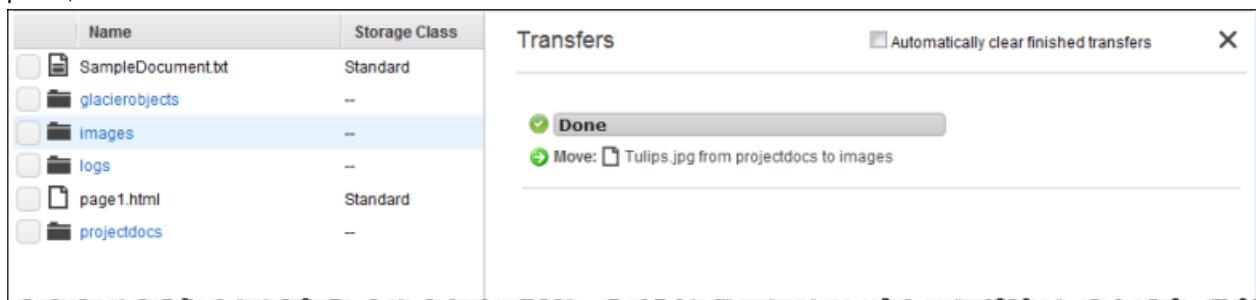
If you click **Cut** instead of **Copy**, you will move your file from its current location to another.

3. Navigate to the bucket and folder where you want to copy the object, right-click the target location, and then click **Paste Into**.



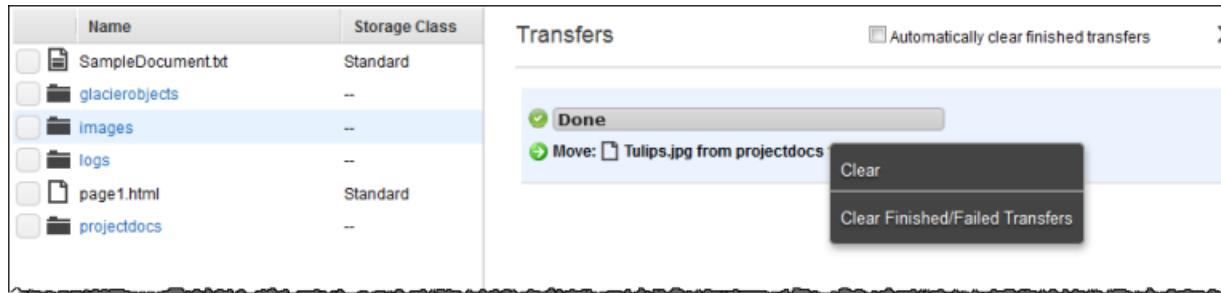
After you initiate the copy process, you must keep the browser open while the copy is in progress.

You can monitor the progress of the copy on the **Transfers** panel. To hide or show the **Transfers** panel, click the **Transfers** button on the console.



Note

To clear individual line items in the **Transfers** panel, right-click the items, and then click **Clear**. To remove all finished or failed transfers, click **Clear Finished/Failed Transfers**.

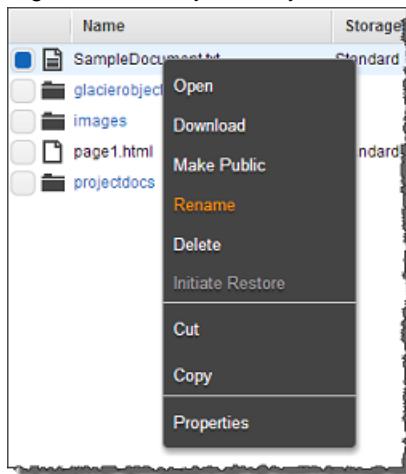


Renaming an Object

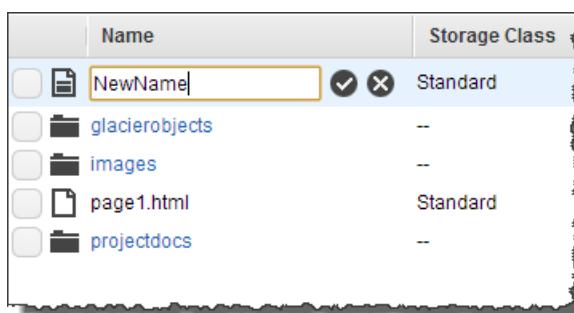
This section explains how to use the Amazon S3 console to rename an object. To rename multiple objects, rename each object separately.

To rename an object

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Right-click the object that you want to rename, and then click **Rename**.



3. In the box for the name, type a new name, and then click the check mark icon to the right of the box to submit the name change.



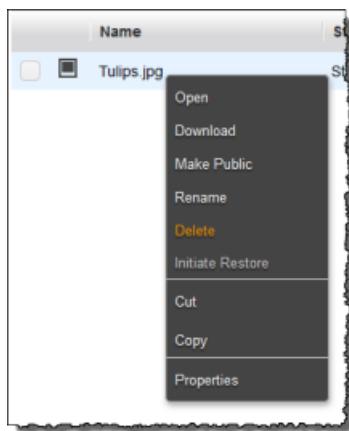
Deleting an Object

Because all objects in your Amazon S3 bucket incur storage costs, you should delete objects that you no longer need. If you are collecting log files, for example, it's a good idea to delete them when they're no longer valuable.

This section explains how to use the Amazon S3 console to delete an object.

To delete an object

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. In the **Objects and Folders** list, right-click the object that you want to delete, and then click **Delete**.



3. When a confirmation message appears, click **OK**.

Deleting Objects by using Lifecycle Configuration Management

You can use Amazon S3 lifecycle configuration rules to schedule automatic deletions. For example, you might want to retain log files for 30 days, after which you want to delete them.

Amazon S3 manages object lifetimes with a lifecycle configuration, which is assigned to a bucket and defines rules for individual objects. You can, for example, apply a lifecycle configuration rule to all objects that begin with the prefix `log` to specify that Amazon S3 will delete such objects after 30 days. For more information, see [Managing Lifecycle Configuration \(p. 30\)](#).

Restoring an Object

Objects in the Amazon Glacier storage class are not immediately accessible: you must first restore a temporary copy of the object to its bucket before it is available. For information about when to use the `GLACIER` storage class for objects, go to [Object Lifecycle Management](#) in the *Amazon Simple Storage Service Developer Guide*. Restored objects are stored only for the number of days that you specify. You can modify the number of days an object is retained after it is restored. If you want a permanent copy of the object, create a copy of it within your Amazon S3 bucket.

This section explains how to use the Amazon S3 console to restore an object that is associated with the storage class `GLACIER`. It also provides procedures for both restoring and modifying the number of days.

Note

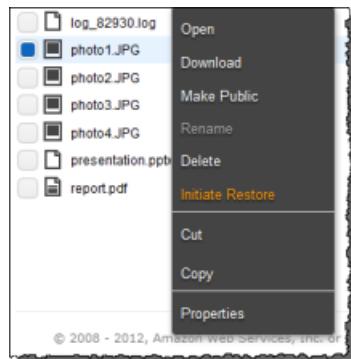
Amazon S3 calculates the restored date of an object by adding the number of days that you specify to the current time when you are restoring the object and then rounding the resulting time to the next day at midnight UTC. This calculation applies to the initial restoration of the object and to any time you modify the restored object's number of days. For example, if an object was restored on 10/15/2012 10:30 AM UTC and the number of days was specified as 3, then the object is restored until 10/19/2012 00:00 UTC. If, on 10/16/2012 11:00 AM UTC you change the number of days to 1, then the object is restored until 10/18/2012 00:00 UTC.

To restore an object

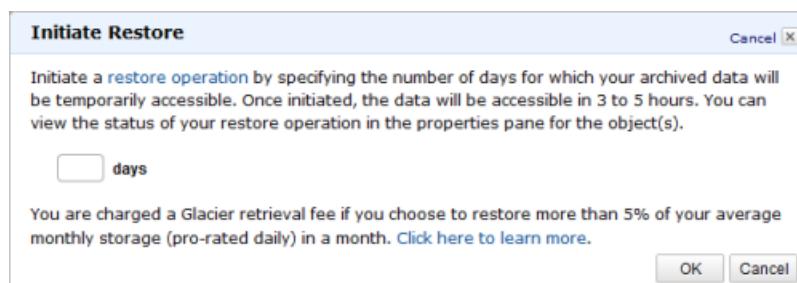
1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Right-click an object in the GLACIER storage class that you want to restore, and then click **Initiate Restore**.

Note

The menu shown in the following screenshot is slightly different if you have versioning enabled and you have the **Version: Hide/Show** button set to **Show**.



3. In the **Initiate Restore** dialog box, type the number of days until the restored object is deleted.



4. In the confirmation notice that appears, click **OK**.

Use the object **Details** pane to determine the status of the restoration. For more information, see [Editing Object Details \(p. 56\)](#).

The following example indicates that an object is in the process of being restored.



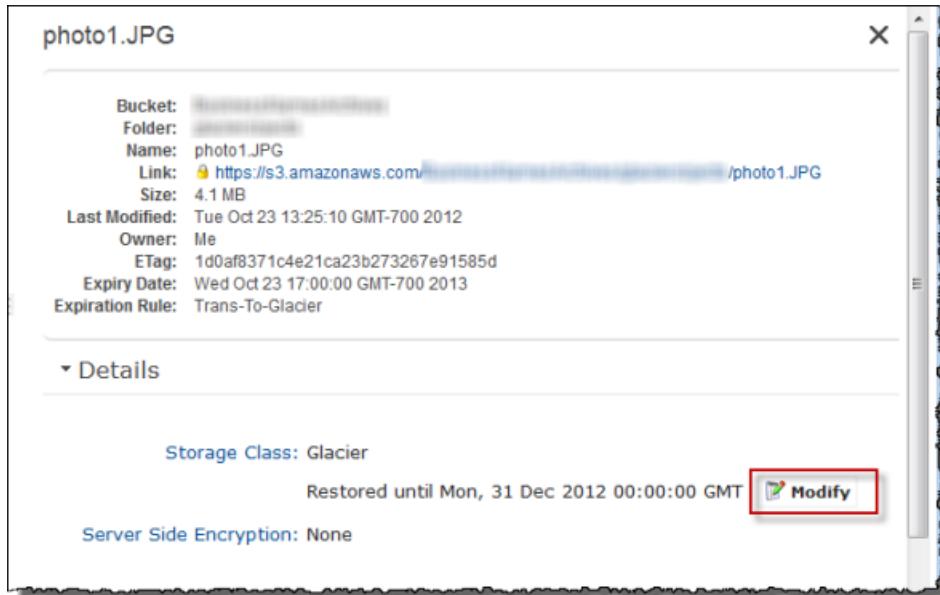
When the object is restored, the **Details** pane shows the date when the copy of object will be deleted.

The following example shows that an object is restored.

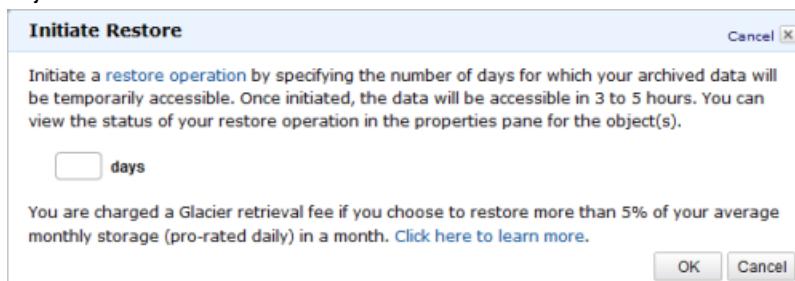


To extend the length of time of a restored object

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
2. Click the restored object whose lifetime you want to extend, and then click **Details**.



3. Click **Modify**.
4. In the **Initiate Restore** dialog box, in the **days** box, type the number of days until the restored object is deleted.



5. In the confirmation message that appears, click **OK**. The **Restored until** date is changed.



Managing Objects in a Versioning-Enabled Bucket

A versioning-enabled bucket can have multiple versions of objects in the bucket. Amazon S3 assigns each object a unique version ID. For more information about versioning support in Amazon S3, see [Using Versioning](#) in the *Amazon Simple Storage Service Developer Guide*.

Topics

- [Uploading an Object \(p. 73\)](#)
- [Updating Object Properties \(p. 73\)](#)
- [Deleting Objects from a Versioning-Enabled Bucket \(p. 74\)](#)

When a bucket is versioning-enabled, you can show or hide all the object versions. The following example shows the list of objects in the `versionenabledexamplebucket` bucket. Version information is hidden, so these objects represent the latest version.

Name	Storage Class	Size	Last Modified
Example1.pdf	Standard	429.9 KB	Sun Dec 30 13:11:54 GMT-800 2012
Example2.pdf	Standard	2.5 MB	Sun Dec 30 13:12:22 GMT-800 2012
Example3.pdf	Reduced Redundancy	974.7 KB	Sun Dec 30 13:12:44 GMT-800 2012

If you click **Show**, the console lists all the versions, as shown in the following example:

Name / Version	Create Date	Storage Class	Version ID	Size
Example1.pdf	Sun Dec 30 13:27:39 GMT-800 2012	—	—	—
Example1.pdf	Sun Dec 30 13:21:55 GMT-800 2012	Standard	H4Mn0Dbj3j0hcl3rmmTlY6oYpIAECCR	429.9 KB
Example1.pdf	Sun Dec 30 13:11:54 GMT-800 2012	Standard	SddwXhkExtOSQUdHWCatNuBWltzq_g1	429.9 KB
Example2.pdf	Sun Dec 30 13:12:22 GMT-800 2012	Standard	PKWnuhkgVls_M5xmXf1JpOD9TNGe3C	429.9 KB
Example2.pdf	Sun Dec 30 13:12:22 GMT-800 2012	Standard	5.DRsEhTkLWU4nleSkgF1Pe1dblLOOV	2.5 MB
Example3.pdf	Sun Dec 30 13:12:44 GMT-800 2012	Reduced Redundancy	TNFHPgTVJHotuKtJVzoMuG8SKBQoo	974.7 KB

For each object version, the console shows a unique version ID, the date and time the object version was created, and other properties.

Uploading an Object

If you upload an object with a key name that already exists in the bucket, Amazon S3 creates another version of the object instead of replacing the existing object. For more information about uploading an object, see [Uploading Objects into Amazon S3 \(p. 47\)](#).

Updating Object Properties

If you update any object properties after the initial object upload, such as changing the storage details or any other metadata changes, then Amazon S3 creates a new object version in the bucket. If you rename the object, Amazon S3 creates a new object version.

For example, if you update an object's storage class or change how the object is stored at rest by updating its server-side encryption property, Amazon S3 creates an object version for each property update you save.

When versions are hidden, you can update all the object properties; when versions are shown, you can update only the permissions for the specific object version.

For more information about updating object properties, see [Editing Object Properties \(p. 55\)](#).

Deleting Objects from a Versioning-Enabled Bucket

In a versioning-enabled bucket, you can either delete an object from the object list (version information hidden) or delete a specific version of the object.

With version information hidden, the console shows the object list as shown in the following example:

The screenshot shows the Amazon S3 console interface. At the top, there are buttons for 'Upload', 'Create Folder', and 'Actions'. Below these are two buttons: 'Versions: Hide' (which is selected) and 'Show'. To the right of these are 'None', 'Properties', and 'Transfers' buttons. The main area shows a table with three rows of objects. The columns are 'Name', 'Storage Class', 'Size', and 'Last Modified'. The objects listed are 'Example1.pdf', 'Example2.pdf', and 'Example3.pdf'. The 'Last Modified' column shows dates like 'Sun Dec 30 13:11:54 GMT-800 2012'.

Name	Storage Class	Size	Last Modified
Example1.pdf	Standard	429.9 KB	Sun Dec 30 13:11:54 GMT-800 2012
Example2.pdf	Standard	2.5 MB	Sun Dec 30 13:12:22 GMT-800 2012
Example3.pdf	Reduced Redundancy	974.7 KB	Sun Dec 30 13:12:44 GMT-800 2012

If you select and delete the Example1.pdf object, Amazon S3 adds a delete marker for the object and the object no longer appears in the object list:

This screenshot shows the same Amazon S3 interface after the 'Example1.pdf' object has been deleted. The table now only contains 'Example2.pdf' and 'Example3.pdf'. The 'Last Modified' column shows 'Sun Dec 30 13:12:22 GMT-800 2012' for 'Example2.pdf' and 'Sun Dec 30 13:12:44 GMT-800 2012' for 'Example3.pdf'.

Name	Storage Class	Size	Last Modified
Example2.pdf	Standard	2.5 MB	Sun Dec 30 13:12:22 GMT-800 2012
Example3.pdf	Reduced Redundancy	974.7 KB	Sun Dec 30 13:12:44 GMT-800 2012

However, if you click **Show** to list object versions, the Example1.pdf object appears in the list with all versions and a delete marker at the top.

This screenshot shows the Amazon S3 interface with the 'Show' button selected under 'Versions'. The table lists the versions of 'Example1.pdf'. It includes the original file and three additional versions, each with a timestamp and a 'Delete Marker' status. The 'Delete Marker' row for 'Sun Dec 30 13:27:39 GMT-800 2012' is highlighted with a red box.

Name / Version Create Date	Storage Class	Version ID	Size
Example1.pdf	--	--	--
Sun Dec 30 13:27:39 GMT-800 2012 (Delete Marker)	--	KRQ05.1UBx2OzdJHPazC8.7P8zqZ84p	0 bytes
<i>Sun Dec 30 13:21:55 GMT-800 2012</i>	Standard	H4Mn0Dbj3Qhcl3rmmTiY6o1ptAECCR	429.9 KB
<i>Sun Dec 30 13:11:54 GMT-800 2012</i>	Standard	SddwXhKEt0tSQUdHWCatNuBVWtzq.g1	429.9 KB
Example2.pdf	--	PKWnukhgVls_M5xmxf1JpOD9TNGes3C	429.9 KB
<i>Sun Dec 30 13:12:22 GMT-800 2012</i>	Standard	5.DRsEhTkrLWU4nleSkgF1Pe1dzblL03V	2.5 MB
Example3.pdf	Reduced Redundancy	TNFHPgTVJHotcuKfIJVzoMvuG8SKBQoo	974.7 KB
<i>Sun Dec 30 13:12:44 GMT-800 2012</i>	--	--	--

To delete an object permanently, you must delete all the versions of the object, including the delete marker (if present). If you delete only a specific object version, Amazon S3 permanently deletes only that specific version. If you delete the delete marker, the object reappears in the object list. For more information, see [Deleting an Object \(p. 69\)](#).

Working with Folders

Topics

- [Public Folders \(p. 76\)](#)
- [Creating a Folder \(p. 76\)](#)
- [Deleting a Folder \(p. 76\)](#)

In Amazon S3, buckets and objects are the primary resources, where objects are stored in buckets. Amazon S3 has a flat structure with no hierarchy like you would see in a typical file system. However, for the sake of organizational simplicity, the Amazon S3 console supports the folder concept as a means of grouping objects. Amazon S3 does this by using key name prefixes for objects.

For example, you can create a folder in the console called `photos`, and store an object called `myphoto.jpg` in it. The object is then stored with the key name `photos/myphoto.jpg`, where `photos/` is the prefix.

Here are two more examples:

- If you have three objects in your bucket—`logs/date1.txt`, `logs/date2.txt`, and `logs/date3.txt`—the console will show a folder named `logs`. If you open the folder in the console, you will see three objects: `date1.txt`, `date2.txt`, and `date3.txt`.
- If you have an object named `photos/2013/example.jpg`, the console will show you a folder named `photos` containing the folder `2013` and the object `example.jpg`.

You can have folders within folders, but not buckets within buckets. You can upload and copy objects directly into a folder. Folders can be created, deleted, and made public, but they cannot be renamed. Objects can be moved from one folder to another. For more information about moving objects, see [Support for Moving Data \(p. 5\)](#).

Important

The Amazon S3 console treats all objects that have a forward slash "/" character as the last (trailing) character in the key name as a folder, for example `examplekeyname/`. You cannot upload an object with a key name with a trailing "/" character by using the Amazon S3 console. However, objects named with a trailing "/" can be uploaded with the Amazon S3 API by using the AWS CLI, the AWS SDKs, or REST API.

An object named with a trailing "/" displays as a folder in the Amazon S3 console. The Amazon S3 console does not display the content and metadata for such an object. When

copying an object named with a trailing "/" by using the Amazon S3 console, a new folder is created in the destination location but the object's data and metadata are not copied.

Public Folders

You can make folders public, which means that all of the objects that appear within a public folder in the console are available for viewing or downloading to anyone on the Internet. However, as mentioned previously, the folder concept is only supported in the console. If you use a web browser to view a folder that you made public, you will get an access denied error because the folder is just a naming prefix, for an object or group of objects.

Note

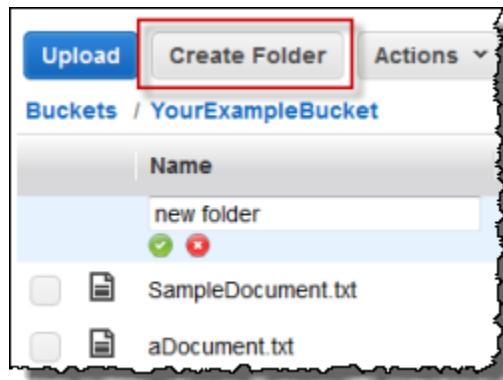
It is easy to make a folder public, but you cannot make a folder private after you make it public. To make the objects in a public folder private, you have to go through each object in the public folder that you want to make private and set the permissions individually. For more information about how to set an object's permissions, see [Editing Object Permissions \(p. 59\)](#).

Creating a Folder

This section describes how to use the console to create a folder.

To create a folder

1. Click the bucket in the **All Buckets** list in which you want to create a folder.
2. Click **Create Folder**.



3. Under **Name**, in the box that appears, type a name for the folder, and then click the check mark.

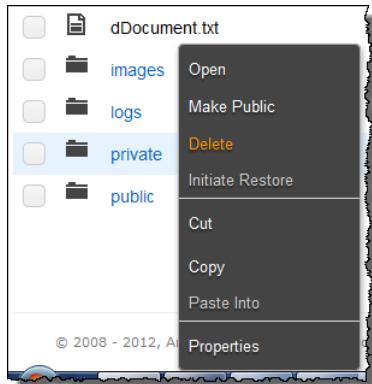
Deleting a Folder

This section describes how to use the console to delete a folder.

Caution

When you delete a folder, any objects or folders contained in the folder will be automatically deleted. If you want to retain those objects, you must move them elsewhere before you delete the folder. For information about moving objects, see [Copying an Object](#).

1. In the **Objects and Folders** list, right-click the folder that you want to delete, and then click **Delete**.



2. When a confirmation message appears, click **OK**.

Amazon S3 Resources

Following is a table that lists related resources that you'll find useful as you work with this service.

Resource	Description
Amazon Simple Storage Service Getting Started Guide	The <i>Amazon Simple Storage Service Getting Started Guide</i> provides a quick tutorial of the service using the AWS Management Console to accomplish basic Amazon S3 tasks.
Amazon Simple Storage Service API Reference	The <i>Amazon Simple Storage Service API Reference</i> describes Amazon S3 operations in detail.
Amazon Simple Storage Service Developer Guide	The <i>Amazon Simple Storage Service Developer Guide</i> describes how to use Amazon S3 operations.
Amazon S3 Technical FAQ	The FAQ covers the top 20 questions developers have asked about this product.
Amazon S3 Release Notes	The Release Notes give a high-level overview of the current release. They specifically note any new features, corrections, and known issues.
AWS Home Page	A central starting point to find documentation, code samples, release notes, and other information to help you build innovative applications with AWS.
AWS Management Console	The console allows you to perform Amazon S3 functions using a simple and intuitive web user interface.
Discussion Forums	A community-based forum for developers to discuss technical questions related to AWS.
AWS Support Center	The home page for AWS Technical Support, including access to our Developer Forums, Technical FAQs, Service Status page, and Premium Support.
AWS Premium Support	The primary web page for information about AWS Premium Support, a one-on-one, fast-response support channel to help you build and run applications on AWS Infrastructure Services.

Resource	Description
Amazon S3 product information	The primary web page for information about Amazon S3.
Amazon S3 pricing information	The primary web page for information about Amazon S3 pricing.
Contact Us	A central contact point for inquiries concerning AWS billing, account, events, abuse, etc.
Conditions of Use	Detailed information about the copyright and trademark usage at Amazon.com and other topics.

Document History

The following table describes the important changes to the documentation since the last release of the *Amazon Simple Storage Service Console User Guide*.

Relevant Dates to this History:

- **Current product version:** 2006-03-01
- **Last documentation update:** April 19, 2016

Change	Description	Date Changed
Amazon S3 Transfer Acceleration	<p>Amazon S3 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.</p> <p>For information about enabling Transfer Acceleration on a bucket, see Enabling Amazon S3 Transfer Acceleration (p. 28). For more information about transfer acceleration, see Transfer Acceleration in the <i>Amazon Simple Storage Service Developer Guide</i>.</p>	In this release
Lifecycle configuration now supports the clean up of incomplete multipart uploads	<p>The Amazon S3 lifecycle configuration rules user interface now supports the option to end and clean up multipart uploads that don't complete within a specified number of days after being initiated. When an incomplete multipart upload becomes eligible for clean up, Amazon S3 ends the multipart upload and deletes any uploaded parts.</p> <p>For related changes in this guide, see the following:</p> <ul style="list-style-type: none">• Lifecycle Configuration for a Bucket without Versioning (p. 30)• Lifecycle Configuration for a Bucket with Versioning (p. 34) <p>For more information, see the following topics in the <i>Amazon Simple Storage Service Developer Guide</i>:</p> <ul style="list-style-type: none">• Aborting Incomplete Multipart Uploads Using a Bucket Lifecycle Policy• Elements to Describe Lifecycle Actions	March 16, 2016

Change	Description	Date Changed
Lifecycle configuration now supports removing expired object delete markers	<p>The Amazon S3 lifecycle configuration rules user interface now allows you to direct Amazon S3 to remove expired object delete markers in a versioned bucket.</p> <p>For related changes in this guide, see Lifecycle Configuration for a Bucket with Versioning (p. 34).</p> <p>For more information, see Elements to Describe Lifecycle Actions in the Amazon Simple Storage Service Developer Guide.</p>	March 16, 2016
Searching for objects by prefix	<p>The Amazon S3 console now supports searching within a bucket or folder for objects with the same object key name prefix. For related changes in this guide, see Searching for Objects by Prefix (p. 63).</p>	November 9, 2015
New storage class	<p>Amazon S3 now offers a new storage class, STANDARD_IA (IA, for infrequent access) for storing objects. This storage class is optimized for long-lived and less frequently accessed data.</p> <p>For related changes in this guide, see Uploading Objects into Amazon S3 (p. 47) and Editing Object Properties (p. 55). For more information, see Storage Classes in the <i>Amazon Simple Storage Service Developer Guide</i>.</p> <p>Lifecycle configuration feature updates now allow you to transition objects to the STANDARD_IA storage class. For related changes in this guide, see Managing Lifecycle Configuration (p. 30). For more information, see Object Lifecycle Management in the <i>Amazon Simple Storage Service Developer Guide</i>.</p> <p>Previously, the cross-region replication feature used the storage class of the source object for object replicas. Now, when you configure cross-region replication you can specify a storage class for the object replica created in the destination bucket.</p> <p>For related changes in this guide, see Managing Cross-Region Replication (p. 41). For more information, see Cross-Region Replication in the <i>Amazon Simple Storage Service Developer Guide</i>.</p>	September 16, 2015
Bucket lifecycle configuration update	<p>The Amazon S3 lifecycle configuration rules user interface has been updated to improve usability. For more information, see Lifecycle Configuration for a Bucket without Versioning (p. 30) and Lifecycle Configuration for a Bucket with Versioning (p. 34).</p>	August 11, 2015
Event notifications	<p>Amazon S3 event notifications have been updated to add notifications when objects are deleted and to add filtering on object names with prefix and suffix matching. For more information, see Enabling Event Notifications (p. 21).</p>	July 28, 2015
Support for deleting and emptying non-empty buckets	<p>Amazon S3 now supports deleting and emptying non-empty buckets. For more information, see Deleting or Emptying an Amazon S3 Bucket (p. 12).</p>	July 16, 2015

Change	Description	Date Changed
Event notifications	Event notifications have been updated in the Amazon S3 console to support the switch to resource-based permissions for AWS Lambda functions. For more information, see Enabling Event Notifications (p. 21) .	April 9, 2015
Cross-region replication	The Amazon S3 console now supports cross-region replication. Cross-region replication is the automatic, asynchronous copying of objects across buckets in different AWS regions. For more information, see Managing Cross-Region Replication (p. 41) .	March 24, 2015
Event notifications	Amazon S3 now supports new event types and destinations in a bucket notification configuration. Prior to this release, Amazon S3 supported only the <code>s3:ReducedRedundancyLostObject</code> event type and an Amazon SNS topic as the destination. For more information about the new event types, go to Setting Up Notification of Bucket Events in the <i>Amazon Simple Storage Service Developer Guide</i> .	November, 13, 2014
Amazon S3 now supports lifecycle rules for versioning	The Amazon S3 console now supports lifecycle configuration rules for buckets with versioning. For more information see, Managing Lifecycle Configuration (p. 30) .	May 20, 2014
Console support for enabling bucket versioning	The Amazon S3 console now supports bucket versioning and managing objects in a versioning-enabled bucket. For more information see, Enabling Bucket Versioning (p. 27) , and Managing Objects in a Versioning-Enabled Bucket (p. 73) .	December 31, 2012
Support for static website hosting at the root domain	<p>Amazon S3 now supports hosting static websites at the root domain. Visitors to your website can access your site from their browser without specifying "www" in the web address (e.g., "example.com"). Many customers already host static websites on Amazon S3 that are accessible via a "www" subdomain (e.g., "www.example.com"). Previously, to support root domain access, you needed to run your own web server to proxy root domain requests from browsers to your website on Amazon S3. Running a web server to proxy requests introduces additional costs, operational burden, and another potential point of failure. Now, you can take advantage of the high availability and durability of Amazon S3 for both "www" and root domain addresses.</p> <p>For an example walkthrough, go to Example: Setting Up a Static Website Using a Custom Domain in the <i>Amazon Simple Storage Service Developer Guide</i>. For conceptual information, go to Hosting Static Websites on Amazon S3 in the <i>Amazon Simple Storage Service Developer Guide</i>.</p>	December 27, 2012
Console revision	Amazon S3 console has been updated. The documentation topics that refer to the console have been revised accordingly.	December 14, 2012

Change	Description	Date Changed
Support for Archiving Data to Amazon Glacier	<p>Amazon S3 now support a storage option that enables you to utilize Amazon Glacier's low-cost storage service for data archival. To archive objects, you define archival rules identifying objects and timeline when you want Amazon S3 to archive these objects to Amazon Glacier. You can easily set the rules on a bucket using the Amazon S3 console or programmatically using the Amazon S3 API or AWS SDKs.</p> <p>In addition to setting object expiration, you can now use lifecycle management to archive data in Amazon S3. For more information, see Managing Lifecycle Configuration (p. 30).</p> <p>For conceptual information, go to Object Lifecycle Management in the <i>Amazon Simple Storage Service Developer Guide</i>.</p>	November 13, 2012
Cross-Origin Resource Sharing (CORS) support	Amazon S3 now supports Cross-Origin Resource Sharing (CORS). CORS defines a way in which client web applications that are loaded in one domain can interact with or access resources in a different domain. With CORS support in Amazon S3, you can build rich client-side web applications on top of Amazon S3 and selectively allow cross-domain access to your Amazon S3 resources. For more information, see Enabling Cross-Origin Resource Sharing in the <i>Amazon Simple Storage Service Developer Guide</i> .	August 31, 2012
AWS Cost Allocation Tagging support	You can use AWS Cost Allocation to control how storage resources are organized on your bill. You do this by defining one or more tags for a bucket. For more information, go to Cost Allocation Tagging in the <i>Amazon Simple Storage Service Developer Guide</i> .	August 21, 2012
Object Expiration support	You can use Object Expiration to schedule automatic removal of data after a configured time period. You set object expiration by adding lifecycle configuration to a bucket. For more information, go to Elements to Describe Lifecycle Actions in the <i>Amazon Simple Storage Service Developer Guide</i> .	December 27, 2011
New region supported	Amazon S3 now supports the South America (São Paulo) region. For more information, go to Regions and Endpoints in <i>AWS General Reference</i> .	December 14, 2011
New region supported	Amazon S3 now supports the US West (Oregon) region. For more information, go to Regions and Endpoints in <i>AWS General Reference</i> .	November 8, 2011
Documentation Update	This release includes enhancements to the object properties related sections. Information about what the Details properties tab show when you select one or more objects. For more information, see Editing Object Properties (p. 55) .	October 17, 2011

Change	Description	Date Changed
Support for server-side encryption in Amazon S3	<p>This release includes support for server-side encryption in the Amazon S3 console. You can now specify that data stored in Amazon S3 is encrypted at rest. When you upload objects to Amazon S3 using the console, you can choose server-side encryption for your data. For more information, see Uploading Objects into Amazon S3 (p. 47). For more information about server-side encryption for data stored in Amazon S3, see Using Server-Side Encryption in the <i>Amazon Simple Storage Service Developer Guide</i>.</p>	October 5, 2011
AWS Management Console enhancements	<p>This release includes the following AWS Management Console enhancements:</p> <ul style="list-style-type: none"> • Folder upload—You can now use AWS Management Console to upload folders into Amazon S3. Amazon S3 uploads all the files, and subfolders from the specified folder to your bucket. For more information, see Uploading Objects into Amazon S3 (p. 47) • Jump feature—Instead of scrolling through a long list to find an object or folder, you can now simply start typing the first few characters of an object or folder name into the browser when looking at a listing. The console will jump to objects that match or follow what you type. For more information, see Browsing the Objects in Your Bucket (p. 14) 	June 6, 2011
Support for hosting static websites in Amazon S3	<p>Amazon S3 introduces enhanced support for hosting static websites. This includes support for index documents and custom error documents. When using these features, requests to the root of your bucket or a subfolder (e.g., <code>http://mywebsite.com/subfolder</code>) returns your index document instead of the list of objects in your bucket. If an error is encountered, Amazon S3 returns your custom error message instead of an Amazon S3 error message. For information on managing website configuration using the AWS Management Console, see Configuring a Bucket for Website Hosting (p. 18). For more information about Amazon S3's website configuration feature, go to Hosting Websites on Amazon S3 in the <i>Amazon Simple Storage Service Developer Guide</i>.</p>	February 17, 2011
Large object support	<p>Now, you can use AWS Management Console to upload large objects, up to 5 TB each, to an Amazon S3 bucket.</p>	December 9, 2010
Bucket notifications in the console	<p>Now, you can configure bucket properties to enable notifications. These notifications are posted to Amazon SNS (SNS) topic in the event a Reduced Redundancy Storage (RRS) object is lost from the bucket.</p>	September 8, 2010
Bucket policies in the console	<p>Now, you can add and edit Amazon S3 bucket policies using the AWS Management Console. You can access bucket policies in the AWS Management Console by viewing the properties of the specific bucket. Using bucket policies, you can define security rules that apply to all objects or a subset of objects within a bucket. This makes updating and managing permissions easier.</p>	August 13, 2010

Change	Description	Date Changed
New Guide	This is the first release of the <i>Amazon Simple Storage Service Console User Guide</i> . It describes how to use Amazon S3 in the AWS Management Console.	June 8, 2010

AWS Glossary

For the latest AWS terminology, see the [AWS Glossary](#) in the *AWS General Reference*.