# **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)

### **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, go to What is IAM? in Using IAM. For more information about permissions, go to 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, go to 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 into the Amazon S3 console at https://console.aws.amazon.com/s3 as you read the remainder of this section.

### 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.

Crea	ate Bucket	Actions •	None	Properties	Transfers	C
	uckets					
Q	example1buck	ket				1
Q	example2buck	ket				
Q	C example3bucket					
4		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

### **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.

Upload Create Folder Actions ~ None Properties Transfers C*					
Name HappyFace.jpg	Storage Class Standard	Size 3.1 KB	Object: HappyFace1.jpg ×		
HappyFace1 jpg     HappyFace2 jpg     HappyFace2 jpg     folderA     folderB	Standard Standard 	3.1 KB 3.1 KB  	Bucket: example Toucket Manne: Hepp/Face1.pp Lister: 31915 anazonava.com/example ToucketHappyFace1.pp Lister: 31917 Last Meditiod: Sun Feb 161.339.50 GMT-300.2014 Owner: Me ETag: 6005C/cf-66:004559748bb030d69ae Expiration Rule: N/A		
			Details     Permissions     Metadata		

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. 48).

### **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.

All Buckets / example1bucket					
	Name	Storage Class	Size		
	HappyFace.jpg	Standard	3.1 KB		
	HappyFace1.jpg	Standard	3.1 KB		
	HappyFace2.jpg	Standard	3.1 KB		
	folderA				
	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.

Buckets / examp	le1bucket / logs	
Name	Storage Class	Size
date 1.txt	Standard	6 bytes
date2.txt	Standard	6 bytes
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.

Upload Create Folder Actio	ns ¥		None Properties Transfers
Name	Storage Class	Size	Folder: folderA ×
HappyFace.jpg	Standard	3.1 KB	
HappyFace1.jpg	Standard	3.1 KB	Bucket: example1bucket
HappyFace2.jpg	Standard	3.1 KB	Name: loiderA
folderA	-	-	▼ Details
folderB			
			For all selected items:
			Storage Class: O Standard O Reduced Redundancy
			Existing values will remain unchanged
			Server Side Encryption: O None O AES-256
			Existing values will remain unchanged
			Save

### **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.

Upload - Select Files and Folders	Cancel 🗵
Upload to: All Buckets / example1bucket	
To upload files (up to 5 TB each) to Amazon S3, click Add Files. You can also drag and drop files and folders to the files already selected, click the X to the far right of the file name. Drag and drop files and folders to upload here.	
MyFolder/ (folder) Add Files Remove Selected Files	x
Number of files: 2 Total upload size: 6.2 KB SetDetails > Start Upload	Cancel

### **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.

All	Buckets		
	Name	Bucket: example1bucket	
9	187		
Q	awsexamplebucket	Permissions	
9			
ā,		✓ Lifecvcle	
٩	BURNELLING		
Q	manufactured as and the second second	You can manage the lifecycle of objects by using Lifecycle rules. Rule	
Q,	example1bucket	you to automatically archive the objects to the Glacier Storage Class (lower cost) and/or remove the objects after a specified time period. Rules are	
<u>a</u>	example2bucket	applied to all the objects that share the specified prefix.	
Q	example3bucket	Versioning is not currently enabled on this bucket.	
٩	H LENGTHELESS	You can use Lifecycle rules to manage all versions of your objects. This includes both the Current version and Previous versions.	
9	H LENGTHER AND	includes both the Current version and Previous versions.	
Q	a construction of the second	Add rule	
٩			

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

Create Bucket Actions ~	None Properties Transfers	C
<b>Q</b> *	Bucket: example1bucket	×
<u>G</u> ,		-
Q	Bucket: example1bucket Region: US Standard	1
Q	Creation Date: Thu Mar 06 17:19:04 GMT-800 2014	- 1
Q	Owner: Me	. 1
<b>9</b>	Permissions     Shows existing permissions     stored in bucket ACL	
<b>G</b>	stored in bucket ACL	1
Q example1bucket		
C example2bucket	Grantee: View Permissions Edit Permissions	x
C example3bucket		-1
<b>G</b> . •••••••		
G. Harantinani	O Add more permissions I Edit bucket policy I Add CORS Configuration	- 1
G. management	You can add more ACL- You can also attach Save Can	
Q	based permissions a bucket policy	Cer

• 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.

1	Services 🗸 Edit 🗸
Crea	ate Bucket Actions ~
All B	uckets
g.	example 1bucket
Q.	example2bucket
g,	example3bucket
viii.	

# **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 a Bucket (p. 12)
- Browsing the Objects in Your Bucket (p. 13)
- Editing Bucket Permissions (p. 14)
- Configuring a Bucket for Website Hosting (p. 16)
- Managing Bucket Logging (p. 18)
- Enabling RRS Lost Object Notifications (p. 19)
- Enabling Bucket Versioning (p. 20)
- Managing Lifecycle Configuration (p. 21)
- Managing Cost Allocation Tagging (p. 32)

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 Billing and Cost Management Console.

### **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. 59).

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 into 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.

Create a Bucket - Select a Bucket Name and Region	Cancel 🗙
A bucket is a container for objects stored in Amazon S3. When crea bucket, you can choose a Region to optimize for latency, minimize o address regulatory requirements. For more information regarding b naming conventions, please visit the Amazon S3 documentation.	costs, or
Bucket Name: Region: US Standard	
Set Up Logging > Creat	e Cancel

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.

Bucket names must comply with the following requirements.

- Can contain lowercase letters, numbers, periods (.), underscores (\_), and hyphens (-).
- Must start with a number or letter.
- Must be between 3 and 255 characters long.
- Must not be formatted as an IP address (e.g., 192.168.5.4) .

To conform with DNS requirements, we recommend the following, additional guidelines when creating bucket names. Bucket names:

- Should not contain underscores (\_)
- Should be between 3 and 63 characters long
- Should 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 Endoints in 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.

То	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:

Create a Bucket - Set Up Logging	Cancel 🗙
Enable logging for your bucket to get detailed access logs delivered bucket of your choice.	to the
Enabled:  Target Bucket: mybusinesslogfiles Target Prefix: logs/	
< Select Bucket Name And Region	Cancel

- 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.

Cr	eate Bucket Actions Y	None Properties Transfers	୯ ଡ
Buc	kets		
	Name	mybusinesslogfiles	×
Q	mybusinessbucket		
Q	mybusinesslogfiles	Bucket: mybusinesslogfiles Region: US Standard Creation Date: Thu Dec 13 15:15:37 GMT-800 2012 Owner: Me > Permissions > Static Website Hosting > Logging > Notifications	

# **Deleting a Bucket**

You can delete a bucket only if it is empty. If there are objects in the bucket, you must delete them before you delete the bucket. For information about deleting objects, see Deleting an Object (p. 52).

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

### Note

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**.



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

# **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  $\mathbf{c}$ , 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.

luck	ets /	YourExampleBu	cket / cDo			
		Name	1	Storage Class	Size	
		cDocument.txt		Standard	20 byte:	
	ľ	dDocument.txt	/	Standard	20 byte:	
		public		-	-	
		Jump string appears here				6
	L				cDo	6

- 3. While the jump dialog box is visible, do one of the following:
  - Press Enter This closes the jump dialog box. The jump results (such as the cDo shown in the preceding example screenshot) remain.
  - Press Esc This cancels the jump operation and the jump dialog box closes.

### Tip

To return to the top of the list, press the Backspace key.

## **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

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

	Name	
Q.	mybusinessbucket	* Permissions
<u>a</u>	mybusinesslogfiles	Grantee: UList Upload/Delete View Permissions X Edit Permissions
	I	Add more permissions
		Save Cancel

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

То	Do this
Change an existing permission	Beside the grantee whose permissions you want to change, select the check box for a permission to grant it, or clear the box to deny it.

То	Do this
Add permissions for a person or group	<ul> <li>a. Click Add more permissions.</li> <li>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 Amazon Simple Storage Service Developer Guide. You can add as many as 100 grantees.</li> <li>c. Select the check boxes next to the permissions you want to grant.</li> </ul>
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	<ul> <li>a. Click Add bucket policy.</li> <li>b. In the Bucket Policy Editor, paste your bucket policy into the box provided.</li> <li>For help in generating a policy, you can use the AWS Policy Generator. For examples of Amazon S3 bucket policies, see Example Cases for Amazon S3 Bucket Policies in the Amazon Simple Storage Service Developer Guide.</li> <li>c. Click Save.</li> </ul>
	Permissions  Grantee:  Cancel  Add more permissions  Add bucket policy  Add COBS Configuration  Save Cancel

То	Do this
Add a Cross-Origin Resource Sharing (CORS) configuration	a. 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 Amazon Simple Storage Service Developer Guide.

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

- Authenticated Users This group consists of any user that has an AWS account.
- Everyone This group grants anonymous access to your bucket.
- Log Delivery This group grants write access to your bucket when the bucket is used to stored server access logs.

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**.

Region:	
<ul> <li>Permission</li> </ul>	ns
• Static We	bsite Hosting
your bucket for	our static website entirely on Amazon S3. Once you enable static website hosting, all your content is accessible to web e Amazon S3 website endpoint for your bucket.
Endpoint: exam	nple.com.s3-website-us-east-1.amazonaws.com
Requests for yo be routed to the another host na	rves a website namespace (e.g. "www.example.com"). our host name (e.g. "example.com" or "www.example.com") can ne contents in your bucket. You can also redirect requests to ame (e.g. redirect "example.com" to "www.example.com"). See in for how to set up an Amazon S3 static website with your
O not ena	able website hosting
( a	bsite hosting
© Enable we	usice invstiling

- 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 stepby-step instructions, see Editing Bucket Permissions (p. 14).

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:

▼Logging		
Enabled:		
	Save	Cancel

- 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 RRS Lost Object Notifications**

You can enable event notifications, which are sent to an Amazon Simple Notification Service (Amazon SNS) topic. Currently, Amazon S3 sends a notification only when it detects that a Reduced Redundancy Storage (RRS) object has been lost.

This section explains how to use the Amazon S3 console to enable notifications. For information about using the Amazon S3 API to enable bucket notifications, see Setting Up Notification of Bucket Events in the Amazon Simple Storage Service Developer Guide.

Enabling bucket notifications requires an existing Amazon SNS topic where notifications can be published. For information about creating an Amazon SNS topic, go to Create a Topic in the Amazon Simple Notification Service Getting Started Guide.

A message is published to this Amazon SNS topic, and the topic subscribers are notified. To create an Amazon SNS topic by using the API, see Create Topic in the Amazon Simple Notification Service API Reference.

#### To enable or disable bucket 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 pane, click the bucket whose properties you want to view.
- 3. Click **Notifications**.

<ul> <li>Notifications</li> </ul>	3	
Notification Service	ons causes a message to be published to an Amazon Simple e (SNS) Topic when Amazon S3 detects that a Reduced ge object stored in this bucket is lost.	
Enabled:	]	
Enabled:	]	
_		
_	Save	Cancel

- 4. Select the **Enabled** check box to enable notifications, or clear the **Enabled** check box to disable notifications.
- In Amazon SNS Topic box, type the name of 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.
- 6. Click Save. Amazon S3 will send a test message to all subscribers.

# **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. 56).

#### 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/.
- 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**.

bu ac	ersioning allows you to preserve, retrieve, and restore every version of every object stored in this icket. This provides an additional level of protection by providing a means of recovery for cidental overwrites or expirations. Versioning-enabled buckets store all versions of your objects default.
Lif	u can use lifecycle rules to manage all versions of your objects as well as their associated costs. ecycle rules enable you to automatically archive your objects to the Glacier Storage Class and/or move them after a specified time period.
Or	nce enabled, Versioning cannot be disabled, only suspended.
Ve	ersioning is currently not enabled on this bucket.
	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.

✓ Versioning	
Versioning allows you to preserve, retrieve, and restore every version of every object stored in th bucket. This provides an additional level of protection by providing a means of recovery for accider overwrites or expirations. Versioning-enabled buckets store all versions of your objects by default	ntal
You can use lifecycle rules to manage all versions of your objects as well as their associated costs Lifecycle rules enable you to automatically archive your objects to the Glacier Storage Class and/o remove them after a specified time period.	
Once enabled, Versioning cannot be disabled, only suspended.	4
Versioning is currently enabled on this bucket.	4
Suspend Versioning	

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.

# **Managing Lifecycle Configuration**

This section explains how to manage lifecycle configuration rules for a bucket: adding, viewing, deleting, and disabling rules. You can use lifecycle configuration rules to archive or delete objects after a specified period of time. A transition action archives an object, and an expiration action deletes the object. For more information about lifecycle configuration transition and expiration actions, go to Object Lifecycle Management in the Amazon Simple Storage Service Developer Guide.

### **Archiving Objects**

You can use a lifecycle configuration rule to archive objects to Amazon Glacier. An archived object is not directly accessible unless you restore a temporary copy. Additionally, you cannot use a lifecycle configuration rule to change the storage class of the archived object from Glacier to Standard or RRS.

Amazon S3 objects that have been archived to the Glacier storage class are visible and available only through the Amazon S3 console or the API, not through the Amazon Glacier console or the API.

#### **Deleting Objects**

You can also use a lifecycle configuration rule to delete objects. You might have objects in Amazon S3 or archived to Amazon Glacier that you want to delete using a lifecycle configuration rule. For more information about archiving objects and scheduling object deletions, see Object Lifecycle Management in the Amazon Simple Storage Service Developer Guide.

You can add lifecycle rules to buckets that have object versioning enabled or suspended as well as to buckets that do not. For information on how to enable versioning on a bucket, see Enabling Bucket Versioning (p. 20).

#### Topics

- Lifecycle Configuration for a Bucket without Versioning (p. 22)
- Lifecycle Configuration for a Bucket with Versioning (p. 25)
- Maintaining Lifecycle Configuration Rules (p. 29)

### Lifecycle Configuration for a Bucket without Versioning

You can use lifecycle configuration rules to archive or delete objects after a specified period of time. For more information about lifecycle configuration rules, see the see Object Lifecycle Management in the *Amazon Simple Storage Service Developer Guide*.

The following example walkthrough creates a lifecycle configuration rule for a bucket that archives your log files after one week and then permanently deletes them after a year.

To 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, click the bucket whose lifecycle configuration you want to configure, click **Properties** and then click **Lifecycle**.

	ons ¥	None Properties Transfers
All Buckets / examplebucket1	Storage Class Standard Standard	Bucket: examplebucket1 Region: US Standard Creation plate: Tue Nov 05 18:56:26 GMT-800 2013 Owner: Me Permissions Static Website Hosting Logging Notifications Versioning
		Lifecycle     Jacs

3. Click Add rule.

You can manage the lifecycle of objects by using lifecycle rules. Rules enable you to automatically archive the objects to the Glacier Storage Class (lower cost) and/or remove the 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.	<ul> <li>Lifecycle</li> </ul>	
You can use lifecycle rules to manage all versions of your objects. This includes both the Current version and Previous versions.	to automatical and/or remove	ly archive the objects to the Glacier Storage Class (lower cost) e the objects after a specified time period. Rules are applied to all
both the Current version and Previous versions.         ③ Add rule	Versioning is	not currently enabled on this bucket.
	🚯 Add rule	
Save Cancel		Save Cancel

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

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

Lifecycle Rules			×
Step 1: Choose Rule Target Step 2: Configure Rule Step 3: Review and Name	Apply the Rule to:	<ul> <li>Whole Bucket: example-bucket-no-versioning</li> <li>A Prefix logs/         <ul> <li>Case sensitive. e.g. Myfolder/ or MyFolder/MyObject</li> <li>Rule will apply to all the objects that start with the specified prefix</li> </ul> </li> </ul>	*
		Don't include the bucket name in the prefix Cancel Configure Rule	•>

5. Select Archive and then Permanently Delete from the Action on Objects menu.

Lifecycle Rules	x	
Step 1: Choose Rule Target Step 2: Configure Rule Step 3: Review and Name	Lifecycle rules will help you manage your storage costs by controlling the lifecycle of your objects. Create lifecycle rules to automatically archive your objects to the Glacier Storage Class and remove them after a specified time period. Choose different options below to see what works best for your use case. No rule will take effect until you activate them at the end of this wizard.	•
	Action on Objects Archive and then Permanently Delete  See an example Archive to the Glacier Storage Class 7 days after the object's creation date. (Enter '0' for same-day archival) This rule reduces your storage costs. Amazon Glacier is an extremely low-cost storage service. Objects archived to the Glacier Storage Class are not immediately accessible (Learn More).	Е
	Permanently Delete 365 days after the object's creation date.	-
	Cancel < Set Target Review >	Ē

- a. Specify the number of days after the object's creation date that you want the rule to be applied for both **Archive to the Glacier Storage Class** and **Permanently Delete**.
- b. You can click **See an example** to see how your rule will work.

ermanently	Delete 100 da	ays after cro	eation date				
Day 0		Day 10	<b>1 1</b> 53		) O Day 100	<b>1</b> 53	
	Object Uploaded		Rule Takes Effect	Object Storage Class: Glacier		Rule Takes Effect	Object Deleted
The object 1st.	was uploaded	to the targe	et bucket or	n October 1st.	The creatior	n date of thi	s object is October
	r 11th, 10 days e object to the				Lifecycle rul	e takes effe	ect and automatically
	/ 9th, 100 days lly deletes the		bject's crea	ation date, the	Lifecycle rule	e takes effe	ect again and
The object	is now perman	ently delete	ed and can	not be recover	ed.		

- c. Click Review.
- 6. You can optionally 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.

Click Edit next to Rule Target or Rule Configuration if you want to make changes.

Lifecycle Rules		×
Step 1: Choose Rule Target Step 2: Configure Rule Step 3: Review and Name	Rule Name         Choose a descriptive name for your rule so you can easily identify it in the future. If you do not want to a name now, we will generate one for you.         Rule Name:       Archive-logs-delete-after-a-year         (Optional)	o enter
	Rule Target	Edit
	This rule will apply to Objects with the prefix: logs/ in the example-bucket-no-versioning bucket	
	Rule Configuration	Edit
	Action on Objects	
	Archive to the Glacier Storage Class 7 days after the object's creation date	
	Amazon Glacier is an extremely low-cost storage service. Objects archived to the Glacier Storage Class are not imme accessible (Learn More).	diately
	Permanently Delete 365 days after the object's creation date	
	As versioning is not enabled, lifecycle delete rule will permanently delete the objects with no recovery.	-
	Cancel < Configure Rule Create and Activat	te Rule

Click Create and Activate Rule when all of the settings are as you want them.

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

You can manage the lifecycle of object to automatically archive the objects t and/or remove the objects after a sp the objects that share the specified p	to the Glacier Storage Clas becified time period. Rules a	s (lower cost)
Versioning is not currently enabled	on this bucket.	
You can use lifecycle rules to manage both the Current version and Previou		ts. This includes
Enabled Name		
Enabled   Name Archive-logs-delete-after.	logs/	Modify X

### Note

If there is an issue with a rule, an error message is displayed with information about the issue. For example, if you have multiple rules, Amazon S3 determines if the rule being added will conflict with an existing rule. In that case, the rule cannot be saved.

For information on modifying, disabling, or deleting an existing lifecycle configuration rule, see Maintaining Lifecycle Configuration Rules (p. 29).

### Lifecycle Configuration for a Bucket with Versioning

You can add lifecycle rules to buckets that have object versioning enabled or suspended. You use object versioning to keep multiple versions of an object in an Amazon S3 bucket. A versioning-enabled bucket can have many versions of the same object, one current version and zero or more previous versions. For more information about versioning, see Using Versioning and Object Versioning in the Amazon Simple Storage Service Developer Guide.

### Note

The Amazon Simple Storage Service Developer Guide uses the term "noncurrent" version instead of "previous" version. Both terms mean the same thing.

This topic walks you through creating a lifecycle configuration rule for a bucket that has versioning enabled. You can also add lifecycle configuration rules to a bucket with versioning suspended. For information about how the rules work with a bucket in the versioning-suspended state, see Object Lifecycle Management in the *Amazon Simple Storage Service Developer Guide*.

### Archiving and Deleting Objects

You can use a lifecycle configuration rule to archive current and previous versions of your objects to Amazon Glacier. You can also use a lifecycle configuration rule to delete current and previous versions of your objects. For more information about archiving and scheduling object deletions, see Object Lifecycle Management in the Amazon Simple Storage Service Developer Guide.

The following example walkthrough adds a lifecycle configuration rule to a bucket with versioning enabled. The configuration rule archives the current version of the files that are in the documents folder after 20 days and archives the previous versions that are in the documents folder after a week, and deletes the previous versions after they have been stored for a year.

### To add a lifecycle configuration rule to a bucket with versioning enabled.

- 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 lifecycle configuration you want to configure, click **Properties** and then click **Lifecycle**.

Upload Create Folder Ac	ctions - Versions: Hide Show None Properties Transfers
All Buckets / example-bucket-v	rersioning
Name	Bucket: example-bucket-versioning
<ul> <li>documents</li> <li>logs</li> <li>s3-api.pdf</li> <li>s3-dg.pdf</li> </ul>	Bucket: example-bucket-versioning Region: Oregon Creation Date: Tue May 13 15:14:08 GMT-700 2014 Owner: Me MFA Delete: Not Enabled
s3-ug.pdf	▹ Permissions
	Static Website Hosting
	▸ Logging
	Notifications
	→ Versioning
	Lifecycle
have been a second and the second sec	and the second s

3. Click Add rule.

▼ Lifecycle
You can manage the lifecycle of objects by using lifecycle rules. Rules enable you to automatically archive the objects to the Glacier Storage Class (lower cost) and/or remove the objects after a specified time period. Rules are applied to all the objects that share the specified prefix.
Versioning is 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.
C Add rule
Save Cancel

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.)

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

Lifecycle Rules				×
Step 1: Choose Rule Target	Apply the Rule to:	0	Whole Bucket: example-bucket-versioning	
Step 2: Configure Rule		۲	A Prefix documents/	
Step 3: Review and Name			<ul> <li>Case sensitive. e.g. Myfolder/ or MyFolder/MyObject</li> <li>Rule will apply to all the objects that start with the specified prefix</li> <li>Don't include the bucket name in the prefix</li> </ul>	
			Cancel Configure Rule	>

5. Configure the rule.

Lifecycle Rules	×
Step 1: Choose Rule Target <b>Step 2: Configure Rule</b> Step 3: Review and Name	Lifecycle rules will help you manage your storage costs by controlling the lifecycle of your objects. Create lifecycle rules to automatically archive your objects to the Glacier Storage Class and remove them after a specified time period. You can use lifecycle rules to manage all versions of your objects. This includes both the Current version and Previous versions. Choose different options below to see what works best for your use case. No rule will take effect until you activate them at the end of this wizard.
	Action on Current Version       Active Only       See an example         Archive to the Glacier Storage Class       20       days after the object's creation date. (Enter '0' for same-day archival)         This rule reduces your storage costs. Amazon Glacier is an extremely low-cost storage service. Objects archived to the Glacier Storage Class are not immediately accessible (Learn More).
	Action on Previous Versions Active and then Permanently Detex See an example Archive to the Glacier Storage Class 7 days after expired/overwritten date. (Enter '0' for same-day archival) This rule reduces your storage costs. Amazon Glacier is an extremely low-cost storage service. Objects archived to the Glacier Storage Class are not immediately accessible (Learn More).
	Permanently Delete 365 days after expired/overwritten date. Cancel < Set Target Review >

a. Select Archive Only from the Action on Current Version menu.

Specify the number of days after the object's creation date that you want the rule to be applied.

b. Select Archive and then Permanently Delete from the Action on Previous Versions menu.

Specify the number of days after the object's expired/overwritten date that you want the rule to be applied for both **Archive to the Glacier Storage Class** and **Permanently Delete**.

c. You can click **See an example** to see how your rule will work.

<ul> <li>Pay 0 Pay 1 Pay</li></ul>	Archive to the Permanently	ne Glacier Sto v Delete 100 d	orage Class lays after exp	10 days after o bired/overwritte	expired/overwritten da n date.	ite				
Glacier The current version of an object was overwritten/expired in the target bucket on October 1st . Since Versioning is enabled on this bucket, this overwrite/expire operation retained the current version as a previous version of the object. The expired/overwritten date of the object is October 1st. Lifecycle rule on previous version will start its count from October 1st. On October 11th, 10 days after the overwrite/expiration, the Lifecycle rule takes effect and automatically archives the previous version to the Glacier Storage Class. On January 9th, 100 days after the overwrite/expiration, the Lifecycle rule takes effect again and automatically deletes the previous version.	Day 0			Rule Takes	Previous Version	Day 100 Rule Take	53 5 Previous Ve	rsion		
<ul> <li>Since Versioning is enabled on this bucket, this overwrite/expire operation retained the current version as a previous version of the object.</li> <li>The expired/overwritten date of the object is October 1st. Lifecycle rule on previous version will start its count from October 1st.</li> <li>On October 11th, 10 days after the overwrite/expiration, the Lifecycle rule takes effect and automatically archives the previous version to the Glacier Storage Class.</li> <li>On January 9th, 100 days after the overwrite/expiration, the Lifecycle rule takes effect again and automatically deletes the previous version.</li> </ul>		Overwritten		Effect		Effect	Delete	1		
<ul> <li>version of the object.</li> <li>The expired/overwritten date of the object is October 1st. Lifecycle rule on previous version will start its count from October 1st.</li> <li>On October 11th, 10 days after the overwrite/expiration, the Lifecycle rule takes effect and automatically archives the previous version to the Glacier Storage Class.</li> <li>On January 9th, 100 days after the overwrite/expiration, the Lifecycle rule takes effect again and automatically deletes the previous version.</li> </ul>	The current	t version of an	object was	overwritten/ex	pired in the target buc	ket on October 1	st .			
October 1st. On October 11th, 10 days after the overwrite/expiration, the Lifecycle rule takes effect and automatically archives the previous version to the Glacier Storage Class. On January 9th, 100 days after the overwrite/expiration, the Lifecycle rule takes effect again and automatically deletes the previous version.			led on this b	ucket, this over	write/expire operation	n retained the cur	ent version a	s a previous		
previous version to the Glacier Storage Class. On January 9th, 100 days after the overwrite/expiration, the Lifecycle rule takes effect again and automatically deletes the previous version.			late of the ot	ject is Octobe	r 1st. Lifecycle rule o	n previous version	n will start its o	ount from		
previous version.					ion, the Lifecycle rule	e takes effect and	automatically	archives the		
The previous version is now permanently deleted and cannot be recovered.			s after the ov	/erwrite/expirat	ion, the Lifecycle rule	e takes effect agai	n and automa	ically delete:	s the	
	The previou	us version is n	now permane	ently deleted ar	nd cannot be recover	ed.				

- d. Click Review.
- 6. You can optionally 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.

Click Edit next to Rule Target or Rule Configuration if you want to make changes.

Lifecycle Rules		×
Step 1: Choose Rule Target Step 2: Configure Rule Step 3: Review and Name	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 gener Rule Name: ManageDocuments (Optional)	rate one for you.
	Rule Target	Edit
	This rule will apply to Objects with the prefix: documents/ in the example-bucket-versioning bucket	
	Rule Configuration	Edit
	Action on Current Version	
	Archive to the Glacier Storage Class 20 days after the object's creation date	-
	Amazon Glacier is an extremely low-cost storage service. Objects archived to the Glacier Storage Class are not immediately accessible (Learn More).	
	Action on Previous Versions	
	Archive to the Glacier Storage Class 7 days after overwrite/expiration date.	
	Amazon Glacier is an extremely low-cost storage service. Objects archived to the Glacier Storage Class are not immediately accessible (Learn More).	
	Permanently Delete 365 days after overwrite/expiration date.	
	You cannot recover Permanently Deleted objects.	
	Cancel < Configure Rule Create and	d Activate Rule

Click Create and Activate Rule when all of the settings are as you want them.

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

You can manage the lifecycle of objects by using lifecycle rules. Rules enable you to automatically archive the objects to the Glacier Storage Class (lower cost) and/or remove the objects after a specified time period. Rules are applied to all the objects that share the specified prefix.				
ersionin	g is currently enabled o	n this bucket.		
	nd Previous versions.	ge all versions of your objects. Thi Rule Target	is includes both the Current	
	ManageDocuments	documents/	📝 Modify X	

#### Note

If there is an issue with a rule, an error message is displayed with information about the issue. For example, if you have multiple rules, Amazon S3 determines if the rule being added will conflict with an existing rule. In that case, the rule cannot be saved.

For information on modifying, disabling, or deleting an existing lifecycle configuration rule, see Maintaining Lifecycle Configuration Rules (p. 29)

### **Maintaining Lifecycle Configuration Rules**

Lifecycle configuration rules for a bucket are displayed in the Lifecycle pane.

▼ Lifecycle		
	by using Lifecycle rules. Rules enable you to auto s (lower cost) and/or remove the objects after a spects that share the specified prefix.	
Versioning is not currently enabled of	n this bucket.	
You can use Lifecycle rules to manage and Previous versions.	all versions of your objects. This includes both the	Current version
Enabled Name	Rule Target	
Archive-logs-delete-after	logs/	📝 Modify 🛛 X
ArchiveDocuments	documents/	📝 Modify 🛛 X
Add rule		
	S	ave Cancel

### To modify a lifecycle configuration rule

#### Note

You cannot modify legacy lifecycle configuration rules that use a specific date. The legacy rules will continue to work, but you cannot change them. However, you can disable or delete the date-based rules.

- 1. In the **Buckets** list, click the name of the bucket that contains the rule, and then click **Lifecycle**.
- 2. Click **Modify** at the end of the row that describes the rule that you want to delete.

<ul> <li>Lifecy</li> </ul>	cle		
the object	s to the Glacier Storage Clas	by using Lifecycle rules. Rules enable you t s (lower cost) and/or remove the objects af ects that share the specified prefix.	
Versionin	g is not currently enabled o	n this bucket.	
	se Lifecycle rules to manage ous versions.	all versions of your objects. This includes bo	oth the Current version
Enabled	Name	Rule Target	
$\checkmark$	Archive-logs-delete-after	logs/	📝 Modify 🛛 🗙
	ArchiveDocuments	documents/	📝 Modify 🛛 🛛
G Add r			Save Cancel

3. Modify your rule.

Lifecycle Rules		>	
Step 1: Choose Rule Target	Rule Name		
Step 2: Configure Rule Step 3: Review and Name	Choose a descriptive name for your rule so you can easily identify it in the future. do not want to enter a name now, we will generate one for you.		
	Rule Name: Archive-logs-delete-after-a-year	Optional)	
	Rule Target	Edit	
	This rule will apply to Objects with the prefix: logs/ in the example-bucket-no-versioning bucket		
	Rule Configuration	Edit	
	Action on Objects		
	Archive to the Glacier Storage Class 0 days after the object's cre	ation date.	
	Amazon Glacier is an extremely low-cost storage service. Objects archived Class are not immediately accessible (Learn More).	to the Glacier Storage	
	Permanently Delete 365 days after the object's creation date		
	As versioning is not enabled, lifecycle delete rule will permanently delete th recovery.	e objects with no	
	Cancel < Configure	Rule Save Rule	

4. Click **Save Rule** when you are finished modifying your rule.

### To delete a lifecycle configuration rule

- 1. In the **Buckets** list, click the name of the bucket that contains the rule, and then click Lifecycle.
- 2. Click the x at the end of the row that describes the rule that you want to delete.

<ul> <li>▼ Lifecy</li> </ul>	cle		
the object	s to the Glacier Storage Clas	by using Lifecycle rules. Rules enable you to auto s (lower cost) and/or remove the objects after a sp ects that share the specified prefix.	
Versionin	g is not currently enabled o	n this bucket.	
	se Lifecycle rules to manage a ous versions.	all versions of your objects. This includes both the	Current version
Enabled	Name	Rule Target	
$\checkmark$	Archive-logs-delete-after	logs/	📝 Modify 🛛 🗴
$\checkmark$	ArchiveDocuments	documents/	📝 Modify 🛛 🛛
Add r	ule	s	ave Cancel

3. Click Save.

### To disable a lifecycle configuration rule

- 1. In the **Buckets** list, click the name of the bucket that contains the rule, and then click Lifecycle.
- 2. Clear the **Enabled** check box for the rule.

<ul> <li>Lifecycle</li> </ul>		
ou can manage the lifecycle of obje ne objects to the Glacier Storage Cl eriod. Rules are applied to all the o	ass (lower cost) and/or remove	
ersioning is not currently enabled	on this bucket.	
ou can use Lifecycle rules to manag nd Previous versions.	e all versions of your objects. Th	nis includes both the Current version
Enabled   Name	Rule Target	
Archive-logs-delete-after.	logs/	📝 Modify 🛛 🗙
ArchiveDocuments	documents/	🔀 Modify 🗙 🗙
Add rule		
		Save Cancel

3. Click Save.

The rule is not deleted; you can enable it again later if you want.

Rules that apply to an object are displayed with the object properties.

### To view an object's expiration rule

• In the **Object and Folders** list, click the object whose properties you want to view.

Among the object properties, the **Expiry Date** and **Lifecycle Rule** indicate which object expiration rule applies to the object. If no object expiration rule applies to the object, the **Expiry Date** field displays **None**, and the **Lifecycle Rule** field displays **N/A**.

The following example shows the properties for an object in which an rule named "Trans-Logs-And-Expr" applies to the object.

20121025-mylo	20121025-mylogfile.txt			
Bucket:	mybusinessbucket			
Folder:	logs			
Name:	20121025-mylogfile.txt			
Size:	3.8 KB			
Last Modified:	Thu Dec 13 16:15:07 GMT-800 2012			
Owner:	Me			
ETag:	ccbbb8ccd5c30543fdff21a37eb8b1ba			
Expiry Date:	Sat Dec 14 16:00:00 GMT-800 2013			
Expiration Rule:	Trans-Logs-And-Expr			

The following examples shows the properties for an object in which no expiration rule applies to the object.

	SampleDocument.txt				
	Bucket:	mybusinessbucket			
	Name:	SampleDocument.txt			
	Size:	20 bytes			
	Last Modified:	Thu Dec 13 16:20:14 GMT-800 2012			
	Owner:	Me			
	ETag:	7b8a93f4ef624fdfdad779d256af9ab3			
	Expiry Date:	None			
	Expiration Rule:	N/A			
1					

# **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 keyvalue 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**.

	▼Tags					
	You can view your Amazon S3 bill aggregated by tags in your AWS Cost Allocation report. For more information, go to the Cost Allocation Tags topic in the Amazon S3 Developer Guide.					
	No tags added					
	C Add more tags	And a				
~~~	Save Cancel	-				

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

1	You can view your Amazon S3 bill aggregated by tags in your AWS Cost							
		report. For n on S3 Develo	nore informatior per Guide.	n, go to t	he Cost Alloca	tion Tags t	opic in	
	Key:	project		Value:	ProjectName		x	
	🚱 Add m	ore tags	Remove sele	ected tags				

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.
- 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.
|                                    | n S3 Developer Guid |        | he Cost Allocation Ta | gs topic in |
|------------------------------------|---------------------|--------|-----------------------|-------------|
|                                    |                     |        |                       |             |
| Key:                               | project             | Value: | ProjectName           | x           |
| Key:                               | cost-center         | Value: | 5562                  | x           |
| Add more tags Remove selected tags |                     |        |                       |             |

You can also click the  ${\boldsymbol x}$  to the right of a tag's  ${\boldsymbol V}{\boldsymbol a}{\boldsymbol l}{\boldsymbol u}{\boldsymbol e}$  field to delete just that tag.

3. Click Save.

# **Working with Objects**

#### Topics

- Uploading Objects into Amazon S3 (p. 35)
- Editing Object Properties (p. 40)
- Opening an Object (p. 48)
- Downloading an Object (p. 48)
- Copying an Object (p. 50)
- Renaming an Object (p. 51)
- Deleting an Object (p. 52)
- Restoring an Object (p. 53)
- Managing Objects in a Versioning-Enabled Bucket (p. 56)

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.

## **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 im- ages/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 into 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.

Upload - Sel	ect Files		Cancel 🗵
Upload to: Buck	tets / YourExampleBucket		
(BETA), which	n can take up to 2 minutes as the <b>X</b> to the far right of the fil		Amazon S3, dick <b>Enable Enhanced Uploader</b> <u>6 Update 10 or later</u> ). To remove files already
Add Files	CREMOVE Selected Files	Enable Enhanced Uploader (BETA)	Number of files: 0 Total upload size: 0
			Set Details > Start Upload Cancel

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.

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.

#### 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.

🛓 Select files an	nd folders to upload
Look In:	public 🔽 🖬 🛱 🛱 🐯 🔚
SampleFol	der cument.txt
File <u>N</u> ame:	C:\public\public
Files of <u>Type</u> :	All Files
	Open Cancel

- 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. Choose one of the following options:

То	Do this
Upload objects immediately	Click <b>Start Upload</b> . You can skip the rest of this procedure.
Use Reduced Redundancy Storage or Server-Side Encryption	Click <b>Set Details</b> , and then select the appropriate check box or boxes.
Set permissions on the objects	Click <b>Set Details</b> , click <b>Set Permissions</b> , and then continue.
Set metadata for your objects	Click <b>Set Details</b> , click <b>Set Permissions</b> and then continue.

et Details			Cancel 2
pload to: Buckets / mybusinessbucket / images			
etails: Set additional details for all of the objects you upload. You can choose l torage. You can also choose whether or not to <u>encrypt your files</u> on the server	rd Storage and <u>Rec</u>	duced Redund	ancy
Use Reduced Redundancy Storage			
Use Server Side Encryption			

- 7. 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.

Set Permissions	Cancel 🗙
Upload to: Buckets / mybusinessbucket / images	
Permissions: Grant or remove permissions for specific accounts. By default, you are granted full control of all objects you upload Amazon S3 using the AWS Management Console.	lto
No permissions added	
Add more permissions Remove selected permissions	
< Set Details Set Metadata > Start Upload	Cancel

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

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.
- 9. There are two built-in groups that you can choose from the **Grantee** box:
  - 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.
  - Everyone—This group grants anonymous access to your object

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
- 10. 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.

Set Metadata	Cancel 🗵
Upload to: Buckets / mybusinessbucket / images	
Metadata: Add metadata to all of the objects you upload. You can specify common HTTP headers, su Disposition, as well as custom metadata for these.	ch as Content-Type and Content-
Figure out content types automatically	
No metadata added	
Add more metadata Remove selected metadata	
< Set Permissions	Start Upload Cancel

11. Click Start Upload.

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

Тір

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 name.
  - To view object properties, in the Objects and Folders list, click the object.

Name	Storage Class	Chrysanthemum.jpg	×
Chrysanthemum.jpg	Standard	, , , , , , , , , , , , , , , , , , ,	
 Desert.jpg Hydrangeas.jpg	Standard Standard	Bucket: mybusinessbucket Folder: images	
 Jellyfish.jpg	Standard	Name: Chrysanthemum.jpg Link: ahttps://s3.amazonaws.com////Chrysanthemum.jpg	
 Koala.jpg	Standard	Size: 858.7 KB Last Modified: Thu Dec 13 16:23:48 GMT-800 2012	
 Lighthouse.jpg	Standard	Owner: Me ETag: 076e3caed758a1c18c91a0e9cae3368f	
Penguins.jpg Tulips.jpg	Standard Standard	Expiry Date: None Expiration Rule: N/A	

#### 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. 44)) 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.

## **Editing Object Properties**

#### Topics

- Editing Object Details (p. 41)
- Editing Object Permissions (p. 44)
- Editing Object Metadata (p. 47)

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 and includes the object's details, permissions, and metadata.

#### To access the properties of an object

- 1. In the Objects and Folders list, click the object.
- 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. 41).
- To edit object permissions, click **Permissions**, and then edit the permissions as explained in Editing Object Permissions (p. 44).
- To edit object metadata, click **Metadata**, and then edit the permissions as explained in Editing Object Metadata (p. 47).

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:

- Standard and Reduced Redundancy Storage (RRS) Class When an object is in the Standard or RRS storage class, the properties of an object you can see and change include the object's storage redundancy and the state of server-side encryption. In general, you use Amazon S3 RRS to reduce costs by storing noncritical, reproducible data at lower levels of redundancy than Amazon S3 standard storage. For more information, see Using Reduced Redundancy Storage in the Amazon Simple Storage Service Developer Guide. You can use server-side encryption to encrypt objects at rest. For more information, see Using Encryption in the Amazon Simple Storage Service Developer Guide.
- Amazon Glacier Storage Class When an object is in the Amazon Glacier storage class, the properties of the object are view-only if the object has not been restored. When the object is restored, you can modify the date until which the object is restored. In general, you assign objects to the Amazon Glacier storage class for archival purposes and you don't need real-time access to them. For more information, see Object Archival (Amazon Glacier Storage Class) in the Amazon Simple Storage Service Developer Guide.

### **Standard and Reduced Redundancy Storage Class**

When you select an object stored in the Standard or Reduced Redundancy Storage (RRS) class and click **Details**, the details become visible. You can change the **Storage Class** property or **Server Side Encryption** property of the object and click **Save** to save change to the properties. The following example shows the details for an object.

Document.t	xt >	
Bucket:		
	aDocument.txt	
	https://s3.amazonaws.com/aDocument.txt	
	10 bytes	
	Tue Oct 23 13:29:05 GMT-700 2012	
Owner:		
	2b73ebad8987b6b74eb037a16aa3b678	
	Wed Oct 23 17:00:00 GMT-700 2013	
Expiration Rule: Expire-Objects-Rule		
• Details		
St	orage Class: 🖲 Standard 🛛 Reduced Redundancy	
Server Side	Encryption:  None  AES-256	
	Save Cancel	
~~~~~		

When you select two or more objects in a bucket and click **Details**, no selections for **Storage** or **Server Side Encryption** are shown, regardless of the settings of these properties for the files that are part of the selection. In this multiple object select case, 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**, then all of the selected objects will be encrypted. The following example shows the details for two selected items.

Name	Storage Class	x
SampleDocument.txt	Standard	
📄 💼 backup		Bucket
glacierobjects		Selected: 2
0g_82930.log	Standard	
🔳 📄 presigned.txt	Standard	• Details
s3objects		For all selected items: Storage Class: Standard Reduced Redundancy Existing values will remain unchanged Server Side Encryption: None AES-256 Existing values will remain unchanged Save Cancel

### **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.

SampleDocu	ment.txt	>
Bucket:	Recentering	
Folder:	process of the second	
	SampleDocument.txt	
Link:	https://s3.amazonaws.com/ /SampleDocument.txt	1001110000
Size:	10 bytes	
	Tue Oct 23 13:26:27 GMT-700 2012	
Owner:		
	2b73ebad8987b6b74eb037a16aa3b678	
	Wed Oct 23 17:00:00 GMT-700 2013	
Expiration Rule:	Trans-To-Glacier	
• Details		
St	orage Class: Glacier	
Server Side	Encryption: None	

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. 53).

photo1.JPG	Glacier	▼ Details
photo2.JPG photo3.JPG photo4.JPG presentation.pptx report.pdf	Glacier Glacier Glacier Glacier Glacier	Storage Class: Glacier Restoration in progress Server Side Encryption: None
		▶ Permissions

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.

	×
No. of Concession of Concessio	
geometrige in	
photo1.JPG	
https://s3.amazonaws.com/ /photo1.JPG	
4.1 MB	
Tue Oct 23 13:25:10 GMT-700 2012	
Me	
1d0af8371c4e21ca23b273267e91585d	
Wed Oct 23 17:00:00 GMT-700 2013	
Trans-To-Glacier	
orage Class: Glacier	
Restored until Mon, 31 Dec 2012 00:00:00 GMT 🛛 Modify	
Encryption: None	
	photo1.JPG https://s3.amazonaws.com///photo1.JPG 4.1 MB Tue Oct 23 13:25:10 GMT-700 2012 Me 1d0af8371c4e21ca23b273267e91585d Wed Oct 23 17:00:00 GMT-700 2013 Trans-To-Glacier orage Class: Glacier Restored until Mon, 31 Dec 2012 00:00:00 GMT

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**.

	ĽII	SampleDocument.txt	Standard	<ul> <li>Details</li> </ul>
		aDocument.txt	Standard	- Developing
		bDocument.txt	Standard	<ul> <li>Permissions</li> </ul>
	E	cDocument.txt	Standard	
		dDocument.txt	Standard	Grantee: tech View Permissions View View View View View View View View
		images	-	Edit Permissions
		logs		O Add more permissions
		public		Save Cancel
~~~~	~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		

3. Do one of the following:

То	Do this
Change a current permission	Select or clear the check boxes next to the permissions that you want to grant (select) or remove (clear).
To add permissions for a person or group	<ul> <li>a. Click Add more permissions.</li> <li>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.</li> <li>c. Select or clear the check boxes, as appropriate, next to the permissions you want to grant or deny.</li> </ul>
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 two built-in groups that you can choose from the **Grantee** box:

- 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.
- Everyone—This group grants anonymous access to your object

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.

Grantee: tec	h	☑ Open/Download ☑ View Permission	s 🛛 Edit Permissions	x
Grantee: Eve	eryone	♥ Open/Download ■ View Permission	s Edit Permissions	x
Add more pe	ermissions			

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

Object: SampleDocument.txt					
Bucket:					
Name:	SampleDocument.txt	- 1			
Link:	https://s3.amazonaws.com/ /SampleDocument.txt	1			
Size:	18108				
Last Modified:	Wed May 08 14:01:38 GMT-700 2013				
Owner:	Me	- 9			
ETag:	03d7c59a813a3714b27f91ad351f3a6a	- 1			
Expiry Date:	None	- 1			
Expiration Rule:	N/A	- 3			
	~^~^~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				

## **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.

	Name	Storage Class
	SampleDocument.txt	Standard
_	✓ Metadata	
	Key: Content-Type	Value: text/plain * x
	Add more metadata	Remove selected metadata
		Save Cancel

3. Do one of the following:

То	Do This
Add metadata	<ul> <li>a. Click Add more metadata.</li> <li>b. In the Key box, click one of the available keys, or type a new one.</li> <li>c. In the corresponding Value box, click an entry in the list, if available, or type a value.</li> </ul>
Delete metadata	<ul> <li>a. Click the key/value pair that you want to remove.</li> <li>b. Click <b>Remove selected metadata</b>, or click the "x" on the line of the key/value pair that you want to remove.</li> </ul>

4. Click Save.

## **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**.

#### Тір

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

	Name		Storag
	SampleDocum	ent.txt	Standa
	aDocument.txt		da
	bDocument.txt	Download	da
E	cDocument.txt	Make Public Rename	da
	dDocument.txt	Delete	da
	images		
	logs	Cut	
	public	Сору	
		Properties	

## **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**.

	Name	Storag
	SampleDocun	nda
	aDocument.tx	Open nda
Ē	bDocument.tx	Make Public nda
	cDocument.tx	Rename nda
Ĩ	dDocument.to	Delete nda
	images	Initiate Restore
	logs	Cut
	public	Сору
		Properties

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.

Enter name of file to	o save to				×
🕒 🗢 📕 « OS	Disk (C:) + public +	49	Search public		P
Organize 🕶 New	w folder			88 -	
퉬 Public					
File name:	SampleDocument.txt				-
Save as type:	Text Document				•
Hide Folders			Save	Can	cel

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.

#### 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 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.

Name	Storage Class	Transfers Automatic	cally clear finished transfers X				
SampleDocument.txt	Standard		-				
glacierobjects							
images		ODne					
logs		Move: L Tulips.jpg from projectdocs to images					
page1.html	Standard						
projectdocs	-						

#### 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.

	Name	Storage Class	Transfers	Automatically clear finished transfers
🗌 🖹 s	SampleDocument.txt	Standard		
🗌 💼 g	lacierobjects			
📄 💼 ir	mages		One Done	
🗌 💼 Id	ogs		Move: Tulips.jpg from projectdocs	Clear
🗌 🗋 🛛	age1.html	Standard		
🗌 💼 p	projectdocs	-		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

- Sign in to the AWS Management Console and open the Amazon S3 console at https://con-1. sole.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 checkmark 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**.

#### Note

You might use Amazon S3 to store objects that have a well-defined lifetime. 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, go to Object Lifecycle Management in the *Amazon Simple Storage Service Developer Guide*.

## **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 Amazon 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 a.m. 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 a.m. 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 storage class Glacier 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.

Initiate Restore	Cancel 🗶
Initiate a restore operation by specifying the number of days for which your archived be temporarily accessible. Once initiated, the data will be accessible in 3 to 5 hours. view the status of your restore operation in the properties pane for the object(s).	
days	
You are charged a Glacier retrieval fee if you choose to restore more than 5% of your monthly storage (pro-rated daily) in a month. Click here to learn more.	average
OK	Cancel

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. 41).

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

photo1.JPG	Glacier	* Details
photo2.JPG     photo3.JPG     photo4.JPG     presentation.pptx     report.pdf	Glacier Glacier Glacier Glacier Glacier	Storage Class: Glacier Restoration in progress Server Side Encryption: None
		> Permissions

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

photo1.JPG		×	ĺ
Bucket: Folder: Name:	photo1.JPG		
Link:	https://s3.amazonaws.com/ /photo1.JPG		
012.01	4.1 MB Tue Oct 23 13:25:10 GMT-700 2012		
Owner:			
	1d0af8371c4e21ca23b273267e91585d		
	Wed Oct 23 17:00:00 GMT-700 2013		
Expiration Rule:	Trans-To-Glacier		
• Details			
St	orage Class: Glacier		
	Restored until Mon, 31 Dec 2012 00:00:00 GMT Modify		
Server Side	Encryption: None		ļ

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**.

photo1.JPG		×
Bucket:	Haustan all garan divisions	
Folder:	And the second second	
Name:	photo1.JPG	
Link:	https://s3.amazonaws.com/ /photo1.JPG	
	4.1 MB	
	Tue Oct 23 13:25:10 GMT-700 2012	
Owner:		
	1d0af8371c4e21ca23b273267e91585d	
	Wed Oct 23 17:00:00 GMT-700 2013	=
Expiration Rule:	Trans-To-Glacier	
• Details		
5	torage Class: Glacier	
50		a. I.
	Restored until Mon, 31 Dec 2012 00:00:00 GMT 🏼 🕅 Modify	
Server Side	Encryption: None	-

- 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.

Initiate Restore	Cancel 🗵
Initiate a restore operation by specifying the number of days for which your archived be temporarily accessible. Once initiated, the data will be accessible in 3 to 5 hours. view the status of your restore operation in the properties pane for the object(s).	
days	
You are charged a Glacier retrieval fee if you choose to restore more than 5% of your monthly storage (pro-rated daily) in a month. Click here to learn more.	r average
OK	Cancel

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

photo1.JPG		×	ſ
Bucket: Folder:	The state of the s		
Name:	photo1.JPG		
Link:	https://s3.amazonaws.com photo1.JPG		
Size:			
	Tue Oct 23 13:25:10 GMT-700 2012		
Owner:			
	1d0af8371c4e21ca23b273267e91585d		
	Wed Oct 23 17:00:00 GMT-700 2013		
	Trans-To-Glacier		
▪ Details			
St	torage Class: Glacier		
	Restored until Sat, 05 Jan 2013 00:00:00 GMT 🛛 Modify		
Server Side	e Encryption: None		
22.767 2100	The second se		
			1

## 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.

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.

				÷					
Upload Create Folder Actions *	Versions:	Hide	Show		None	Properties	Transfers	C	6
Buckets / versionenabledexamplebucket	-								
Name				Stor	age Class	Size	Last Mod	lified	
Example1.pdf				Stand	lard	429.9 KB	Sun Dec 3	0 13:11:54 GMT	-800 201
Example2.pdf				Stand	lard	2.5 MB	Sun Dec 3	0 13:12:22 GMT	-800 201
Example3.pdf				Redu	ced Redundancy	974.7 KB	Sun Dec 3	0 13:12:44 GMT	-800 201

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

Create Folder Actions ~	Versions: Hide	Show	
ckets / versionenabledexamplebucket			
Name / Version Create Date	Storage Class	Version ID	Size
Example1.pdf	-	-	
Sun Dec 30 13:27:39 GMT-800 2012	Standard	H4Mn0Dbj3jQhcii3rmmTiY6oYptAECCR	429.9 KB
Sun Dec 30 13:21:55 GMT-800 2012	Standard	SddwXhkExtOSQUdHtWCatNuBWIlzq.g1	429.9 KB
Sun Dec 30 13:11:54 GMT-800 2012	Standard	PKWnukhgVIs_M5xmXf1jJpOD9TNGes3C	429.9 KB
Example2.pdf	-	-	
Sun Dec 30 13:12:22 GMT-800 2012	Standard	5.DRsEhTkrLWU4nleSkgF1Pe1dzbLO3V	2.5 MB
Example3.pdf		-	
Sun Dec 30 13:12:44 GMT-800 2012	Reduced Redundancy	TNFHPgTVJHotcuKfTJVzoMvuG8SKBQoo	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. 35).

## **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. 40).

### 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:

Upload Create Folder Actions 🛩	Versions:	Hide	Show		None	Properties	Transfers		୯ 0
Buckets / versionenabledexamplebucke	t								
Name	-			Stora	ge Class	Size	Last Mod	ified	
Example1.pdf				Standa	ird	429.9 KB	Sun Dec 30	) 13:11:54 GM	IT-800 2012
Example2.pdf				Standa	ird	2.5 MB	Sun Dec 30	) 13:12:22 GI	NT-800 201:
Example3.pdf				Reduc	ed Redundancy	974.7 KB	Sun Dec 30	0 13:12:44 GM	NT-800 201:

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:

Upload Create Folder	Actions ¥	Versions:	Hide	Show		
Buckets / versionenabled	examplebucket					- 4
Name	Storage	e Class Siz	ze	Last Modi	fied	Tr
Example2.pdf	Standard	2.5	MB	Sun Dec 30	13:12:22 GMT-	4
Example3.pdf	Reduced	Redundancy 974	.7 KB	Sun Dec 30	13:12:44 GMT-	ŝ
	~~~~~		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	٦

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.

Opload Create Folder Actions Y Versions:	Hide Show No	one Properties Transfers	C"
ickets / versionenabledexamplebucket			
Name / Version Create Date	Storage Class	Version ID	Size
Example1.pdf	-		-
Sun Dec 30 13:55:06 GMT-800 2012 (Delete Marker)	-	KRQ05.1UBX2OzdJHPazC8.7P8Zq.Z84p	0 bytes
Sun Dec 30 13:27:39 GMT-800 2012	Standard	H4Mn0Dbj3jQhcii3rmmTiY6oYptAECCR	429.9 KB
Sun Dec 30 13:21:55 GMT-800 2012	Standard	SddwXhkExtOSQUdHtWCatNuBWIlzq.g1	429.9 KB
Sun Dec 30 13:11:54 GMT-800 2012	Standard	PKWnukhgVls_M5xmXf1jJpOD9TNGes30	429.9 KB
Example2.pdf	-		
Sun Dec 30 13:12:22 GMT-800 2012	Standard	5.DRsEhTkrLWU4nleSkgF1Pe1dzbLO3V	2.5 MB
Example3.pdf	-	-	
Sun Dec 30 13:12:44 GMT-800 2012	Reduced Redundancy	TNFHPgTVJHotcuKfTJVzoMvuG8SKBQoo	974.7 KB

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. 52).

## **Working with Folders**

#### Topics

- Creating a Folder (p. 59)
- Deleting a Folder (p. 60)

The AWS Management Console allows you to create folders that you can use to group your objects. Just like in a file system, a folder is a means of grouping objects. The folder name becomes part of the URL of the object in it. For example, if you upload an object called history.txt to the logs folder using the AWS Management Console, the full key name for this object is logs/history.txt.

You can have folders within folders, but not buckets within buckets. You can upload and copy objects directly into a folder.

In Amazon S3 buckets and objects are the primary resources. You store objects in the bucket. It is a flat structure with no hierarchy that you see in a typical file system. However, the Amazon S3 console supports the folder concept using key name prefixes for objects. For example, you can create a folder called photos in the console and store an object <code>myphoto.jpg</code> in it. But the folder concept is supported only in the console not in Amazon S3. In Amazon S3, the object is stored in the bucket with the key name <code>photos/myphoto.jpg</code>. In other words, the console supports the concept of folders using the key names. 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, 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.

So the console uses object key names to present folders and hierarchy. In Amazon S3, you have only buckets and objects.

## **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 Amazon Simple Storage Service Getting Started Guide 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 Amazon Simple Storage Service API Reference describes Amazon S3 operations in detail.
Amazon Simple Storage Service Developer Guide	The developer guide 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.
Amazon S3 product information	The primary web page for information about Amazon S3.

Resource	Description
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 Amazon S3.

- API version: 2006-03-01
- Latest documentation update: May 20, 2014

Change	Description	Date Changed
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. 21).	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. 20), and Managing Objects in a Versioning-Enabled Bucket (p. 56).	December 31, 2012
Support for static website hosting at the root domain	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. For an example walkthrough, go to go to Example: Setting Up a Static Website Using a Custom Domain. For conceptual information, go to Hosting Static Websites on Amazon S3 in the Amazon Simple Storage Service Developer Guide.	December 27, 2012

Change	Description	Date Changed
Console revision	Amazon S3 console has been updated. The documentation topics that refer to the console have been revised accordingly.	December 14, 2012
Support for Archiving Data to Amazon Glacier	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.	November 13, 2012
	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. 21).	
	For conceptual information, go to Object Lifecycle Management in the Amazon Simple Storage Service Developer Guide.	
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 Object Expiration.	December 27, 2011
New Region supported	Amazon S3 now supports the South America (Sao Paulo) Region. For more information, go to Regions and Endoints in Amazon Web Services General Reference.	December 14, 2011
New Region supported	Amazon S3 now supports the US West (Oregon) Region. go to Regions and Endoints in Amazon Web Services General Reference.	November 8, 2011
Documentation Update	This release includes enhancements to the object properties related sections. Information about what the <b>Details</b> properties tab show when you select one or more objects. For more information, see Editing Object Properties (p. 40).	October 17, 2011

Change	Description	Date Changed
Support for server-side encryption in Amazon S3	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. 35). For more information about server-side encryption for data stored in Amazon S3, see Using Server-Side Encryption in the Amazon S3 <i>Developer Guide</i> .	October 5, 2011
AWS Management Console enhancements	<ul> <li>This release includes the following AWS Management Console enhancements:</li> <li>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. 35)</li> <li>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. 13)</li> </ul>	June 6, 2011
Support for hosting static websites in Amazon S3	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., http://mywebsite.com/subfolder) 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. 16).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> .	February 17, 2011
Large object support	Now, you can use AWS Management Console to upload large objects, up to 5 TB each, to an Amazon S3 bucket.	December 9, 2010
Bucket notifications in the console	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.	September 8, 2010
Bucket policies in the console	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.	August 13, 2010
New Guide	This is the first release of the <i>Amazon Simple Storage Service</i> <i>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.