



Amazon Simple Storage service (Version 2006-03-01)

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Service Operations	Host: <i>destinationBucket.s3.amazonaws.com</i> Date: <i>date</i> Authorization: AWS <i>AWSAccessKeyId:signature</i>	[x-amz-metadata-directive: <i>metadata_directive</i>] [x-amz-copy-source-if-match: <i>etag</i>] [x-amz-copy-source-if-none-match: <i>etag</i>] [x-amz-copy-source-if-unmodified-since: <i>time_stamp</i>] [x-amz-copy-source-if-modified-since: <i>time_stamp</i>] < <i>request metadata</i> >
GET Service Returns a list of all buckets owned by the authenticated request sender. GET / HTTP/1.1 Host: <i>s3.amazonaws.com</i> Date: <i>date</i> zzAuthorization: AWS <i>AWSAccessKeyId:signature</i>	POST Object For more information about POST, refer to the Amazon Simple Storage Service Developer Guide.	HEAD Object Retrieves information about an object for a user with read access without fetching the object. HEAD / <i>destinationObject</i> HTTP/1.1 Host: <i>destinationBucket.s3.amazonaws.com</i> Date: <i>date</i> Authorization: AWS <i>AWSAccessKeyId:signature</i>
Bucket Operations	Object Operations	DELETE Object Deletes the specified object. Once deleted, there is no method to restore or undelete an object. DELETE / HTTP/1.1 Host: <i>destinationBucket.s3.amazonaws.com</i> Date: <i>date</i> Authorization: AWS <i>AWSAccessKeyId:signature</i>
PUT Bucket Creates a new bucket belonging to the account of the authenticated request sender. Optionally, you can specify a EU (Ireland) or US-West (N. California) location constraint. PUT / HTTP/1.1 Host: <i>destinationBucket.s3.amazonaws.com</i> Date: <i>date</i> Authorization: AWS <i>AWSAccessKeyId:signature</i> Content-Length: {0 <i>length</i> } <<CreateBucketConfiguration> <LocationConstraint>EU</LocationConstraint> </CreateBucketConfiguration>	GET Object Gets an object for a user that has read access to the object. GET / <i>destinationObject</i> HTTP/1.1 Host: <i>destinationBucket.s3.amazonaws.com</i> Date: <i>date</i> Authorization: AWS <i>AWSAccessKeyId:signature</i> [Range:bytes= <i>byte_range</i>] [x-amz-metadata-directive: <i>metadata_directive</i>] [x-amz-if-match: <i>etag</i>] [x-amz-if-none-match: <i>etag</i>] [x-amz-if-unmodified-since: <i>time_stamp</i>] [x-amz-if-modified-since: <i>time_stamp</i>]	POST Object Adds an object to a bucket using forms. POST / HTTP/1.1 Host: <i>destinationBucket.s3.amazonaws.com</i> User-Agent: <i>browser_data</i> Accept: <i>file_types</i> Accept-Language: <i>locales</i> Accept-Encoding: <i>encoding</i> Accept-Charset: <i>character_set</i> Keep-Alive: 300 Connection: keep-alive Content-Type: multipart/form-data; boundary=-----ID Content-Length: <i>length</i> < <i>multipart_data</i> > Note: For more information about the multipart data, refer to the Amazon Simple Storage Service Developer Guide.
GET Bucket Lists information about the objects in a bucket for a user that has read access to the bucket. GET ?prefix= <i>prefix</i> &marker= <i>marker</i> &max-keys= <i>maxkeys</i> & delimiter= <i>delimiter</i> HTTP/1.1 Host: <i>destinationBucket.s3.amazonaws.com</i> Date: <i>date</i> Authorization: AWS <i>AWSAccessKeyId:signature</i>	PUT Object Adds an object to a bucket for a user that has write access to the bucket. A success response indicates the object was successfully stored; if the object already exists, it will be overwritten. PUT / <i>destinationObject</i> HTTP/1.1 Host: <i>destinationBucket.s3.amazonaws.com</i> Date: <i>date</i> Authorization: AWS <i>AWSAccessKeyId:signature</i> Content-Length: <i>length</i> Content-MD5: <i>md5_digest</i> Content-Type: <i>type</i> Content-Disposition: <i>object_information</i> Content-Encoding: <i>encoding</i> Cache-Control: <i>caching</i> Expires: <i>expiration</i> < <i>request metadata</i> >	
GET Bucket location Lists the location constraint of the bucket for the bucket owner. GET /?location HTTP/1.1 Host: <i>destinationBucket.s3.amazonaws.com</i> Date: <i>date</i> Authorization: AWS <i>AWSAccessKeyId:signature</i>	COPY Object Copies an object for a user that has write access to the bucket and read access to the object. All headers prefixed with x-amz- must be signed, including x-amz-copy-source. PUT / <i>destinationObject</i> HTTP/1.1 Host: <i>destinationBucket.s3.amazonaws.com</i> Date: <i>date</i> Authorization: AWS <i>AWSAccessKeyId:signature</i> x-amz-copy-source: / <i>source_bucket</i> / <i>sourceObject</i>	
DELETE Bucket Deletes the specified bucket. All objects in the bucket must be deleted before the bucket itself can be deleted. DELETE / HTTP/1.1		



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Miscellaneous

Bucket Name Restrictions

Amazon S3 bucket names must:

- Only contain lowercase letters, numbers, periods (.), and dashes (-)
- Start with a number or letter
- Be between 3 and 63 characters long
- Not be in an IP address style (e.g., "192.168.5.4")
- Not end with a dash
- Not contain dashes next to periods (e.g., "my-.bucket.com" and "my.-bucket" are invalid)

Note: Although legacy bucket names can be up to 255 characters, include underscores, and end with a dash, they are not recommended.

REST Request Signature

Construct a signature by making an RFC2104 HMAC-SHA1 of the following and converting it to Base64.

Item	Example
HTTP-Verb + "\n" +	GET\n
[Content-MD5] + "\n" +	4gJE4saaMU4BqNR0kLY+lw==\n
[Content-Type] + "\n" +	or \n
Date + "\n" +	image/jpeg\n or \n
[CanonicalizedAmzHeaders	Tue, 6 Mar 2007 19:42:41
+/\n]	+0000\n
[CanonicalizedResource]	x-amz-acl:public-read\n
	x-amz-meta-checksum:crc32\n
	/mybucket/photos/lolcatz.jpg

The content cannot contain whitespaces and \n represents Unicode code point U+000A.

Versioning

GET Bucket Object versions

Lists metadata about all of the versions of objects in a bucket.

GET /?versions HTTP/1.1

Host: *BucketName*.s3.amazonaws.com

GET Bucket versioning

Returns the versioning state of a bucket.

GET /?versioning HTTP/1.1

Host: *myBucket*.s3.amazonaws.com

PUT Bucket versioning

Sets the versioning state of an existing bucket.

PUT /?versioning HTTP/1.1

Host: *bucket*.s3.amazonaws.com

```
<VersioningConfiguration
xmlns="http://s3.amazonaws.com/
doc/2006-03-01/"> <Status>Enabled</Status>
</VersioningConfiguration>
```

DELETE Object versionId

Removes a specific object version.

DELETE /*my-third-image.jpg*?

Host: *bucket*.s3.amazonaws.com

versionId=<versionID>

GET Object versionId

Returns a specific object version.

GET /*myObject*?versionId=<versionID>

Host: *bucket*.s3.amazonaws.com

HEAD Object versionId

Returns metadata of a specific object version.

HEAD /*myObject*?versionId=<versionID>

Host: *bucket*.s3.amazonaws.com

PUT Object copy versionId

Copies a specific object version.

PUT /*my-second-image.jpg* HTTP/1.1

Host: *bucket*.s3.amazonaws.com

Date: Wed, 28 Oct 2009 22:32:00 GMT

x-amz-copy-source: /bucket/myimage.
jpg?versionId=<versionID>