Cloud Object Storage

API Documentation

Product Introduction

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API Documentation Introduction

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The XML APIs of Tencent Cloud Object Storage (COS) service are a kind of lightweight interfaces without connection state. You can call these APIs to send requests and receive responses directly via http/https, in order to interact with the backend of Tencent Cloud Object Storage. The contents of both requests and responses for these APIs are in XML format.

Note:
Currently, the available Regions of COS have different values for XML APIs and JSON APIs, and the corresponding region fields are required when using different APIs and their SDKs. For more information, see the document Available Regions.
In order to use the XML APIs of Tencent Cloud Object Storage service more efficiently, please read Request Signature carefully before reviewing other API documents.

Terminology Information

Some main concepts and terms appear in the text:

Name	Description
APPID	A unique resource ID in user dimension owned by a developer when accessing COS services, which is used to indicate resources
SecretId	The project identity ID owned by a developer, which is used for identity authentication
SecretKey	The project identity key owned by a developer
Bucket	The container used to store data in COS
Object	The specific file stored in COS, which is the basic entity that is stored
Region	The region information in domain name. For enumerated values, please see the document Available Regions, such as: ap-beijing, ap-hongkong, eu-frankfurt, etc.
ACL	Access Control List, which refers to the access control information list of specified Buckets or Objects
CORS	Cross-Origin Resource Sharing, which refers to the HTTP request for resources from a different domain
Multipart Uploads	Refers to a multipart upload mode provided by Tencent Cloud COS service for uploading files

Quick Start

To use the Tencent Cloud object storage APIs, you need to follow these steps first:

1. Purchase the Tencent Cloud Object Storage (COS) service
2. Create a Bucket in Tencent Cloud Object Storage Console
3. Obtain APPID, SecretId, and SecretKey on the console Personal API Key page
4. Write an algorithm program for requesting signature (or use any of server-side SDKs)
5. Calculate the signature and call API to perform operation

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APIs of Other Versions

JSON APIs

JSON API is the API provided by Tencent Cloud COS service for users to access COS before launching the XML API, and the upload domain name is [Region].file.myqcloud.com. JSON APIs and standard XML APIs have the same underlying infrastructure, and thus data interoperability is possible and they can be cross-used. However, they're not compatible with each other and have different domains. After the XML API service of Tencent Cloud COS is launched, it is recommended that you use the XML API interface. JSON APIs will be kept in a state of maintenance, and they will be available for use but no new features will be added.

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Common Request Headers

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Description

This document describes Common Request Headers to be used when using APIs. The headers described below will not be discussed in later API documents.

List of Request Headers

Header Name	Description	Type	Required
Authorization	Contain authentication information, signature information used to verify the validity of requests. This header is not required for files that can be read by public users.	String	No
Content-Length	HTTP request content length defined in RFC 2616 (bytes), commonly used in API operations of PUT type.	String	No
Content-Type	HTTP request content type defined in RFC 2616 (MIME), for example: text/plain	String	No
Content-MD5	128-bit content MD5 check value encoded using Base64, defined in RFC 1864. This header is used to check whether the file content has changed.	String	No
Date	GMT time defined in RFC 1123, for example: Wed, 30 Mar. 2016 23:00:00 GMT.	String	No
Expect	If Expect: 100-continue is used, the request content will not be sent until the receipt of response from server. This option can be used to check whether a header is valid, without the need to send the data content. Valid value: 100-continue.	String	No
Host	Request host, in a form of -.cos..myqcloud.com	String	Yes

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Error Codes

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Overview

This document describes the error codes and corresponding error messages returned when a request encounters an error.

Format of Returned Error Message

Response Header

Content-Type: application/xml

Corresponding HTTP status code: 3XX, 4XX, 5XX

Response Content

Syntax Format

```
<?xml version="1.0" encoding="UTF-8"?>
<Error>
<Code>[Error code]</Code>
<Message>[Error message]</Message>
<Resource>[Resource Address]</Resource>
<RequestId>[Request ID]</RequestId>
<TraceId>[Error ID]</TraceId>
</Error>
```

Element Description

Element Name	Description	Type
Error	Contain all error information.	Container
Code	Error codes are used to locate a unique error condition and determine scenario of the error. Error codes are described in detail below.	String
Message	Contain detailed error information.	String
Resource	Resource address: Bucket address or Object address.	String
RequestId	The server will automatically generate a unique ID for the request when the request is sent. When a problem occurs, request-id can help COS locate the problem faster.	String
TraceId	When a request encounters an error, the server will automatically generate a unique ID for the error. When a problem occurs, trace-id can help COS locate the problem faster. When a request encounters an error, one trace-id corresponds to one request-id.	String

Error Codes

3XX Errors

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Error Code	Description	HTTP Status Code
PermanentRedirect	This resource has been moved to another location permanently, please use HTTP Location to redirect to the new location	301 Moved Permanently
TemporaryRedirect	This resource has been moved to another location temporarily, please use HTTP Location to redirect to the new location	302 Moved Temporarily
Redirect	Temporary redirection	307 Moved Temporarily
TemporaryRedirect	You will be redirected temporarily during DNS update process	307 Moved Temporarily

4XX Errors

Error Code	Description	HTTP Status Code
BadDigest	The provided x-cos-SHA-1 value is different from the SHA-1 value of the file received by the server end	400 Bad Request
EntityTooSmall	The size of the file to be uploaded is smaller than the required minimum size, which is common for multipart upload	400 Bad Request
EntityTooLarge	The size of the file to be uploaded is larger than the required maximum size	400 Bad Request
ImcompleteBody	The actual content length of the request is inconsistent with the specified Conent-Length	400 Bad Request
IncorrectNumberOfFilesInPostRequest	Only one file is allowed to be uploaded at a time for a Post request	400 Bad Request
InlineDataTooLarge	The size of inline data is larger than the required maximum size	400 Bad Request
InvalidArgument	URI is invalid	400 Bad Request
InvalidBucketName	Bucket name is invalid	400 Bad Request
InvalidDigest	x-cos-SHA-1 value is invalid	400 Bad Request
InvalidPart	Part is missing or SectionID is invalid	400 Bad Request
InvalidPolicyDocunment	Policy configuration file is invalid	400 Bad Request
InvalidURI	URI is invalid	400 Bad Request
KeyTooLong	File path is too long	400 Bad Request
MalformedACLError	Described ACL policy does not comply with XML syntax	400 Bad Request

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Error Code	Description	HTTP Status Code
MalformedPOSTRequest	The Body content of the POST request is invalid	400 Bad Request
MalformedXML	"body" in XML format does not comply with XML syntax	400 Bad Request
MaxMessageLengthExceeded	Request is too long	400 Bad Request
MaxPostPreDataLengthExceededError	The data prefix of the POST request is too long, this usually happens for multipart upload operations	400 Bad Request
MatadataTooLarge	The size of metadata is larger than the required maximum size	400 Bad Request
MissingRequestBodyError	Request Body is missing	400 Bad Request
MissingSecurityHeader	Required Header is missing	400 Bad Request
MissingContentMD5	Content-MD5 is missing in request header	400 Bad Request
MissingAppid	Appid is missing in request header	400 Bad Request
MissingHost	Host is missing in request header	400 Bad Request
RequestIsNotMultiPartContent	The Content-Type of the POST request is invalid	400 Bad Request
RequestTimeOut	Read timeout. Check whether the network is too slow or number of concurrent file uploads is too large	400 Bad Request
TooManyBucket	The number of Buckets exceeded the limit (200)	400 Bad Request
UnexpectedContent	Relevant content is not supported for the request	400 Bad Request
UnresolvableGrantByUID	The provided UID does not exist	400 Bad Request
UserKeyMustBeSpecified	The path must be specified for the POST operation performed against a Bucket	400 Bad Request
AccessDenied	Access denied due to invalid signature or permission	403 Forbidden
AccountProblem	This operation has been denied by your account	403 Forbidden
InvaildAccessKeyId	AccessKey does not exist	403 Forbidden
InvalidObjectState	Request content is in conflict with Object attribute	403 Forbidden

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Error Code	Description	HTTP Status Code
InvalidSecurity	Signature string is invalid	403 Forbidden
RequestTimeTooSkewed	Request time is beyond the valid period of permission	403 Forbidden
SignatureDoesNotMatch	Incorrect signature	403 Forbidden
NoSuchBucket	Specified Bucket does not exist	404 Not Found
NoSuchUpload	Specified multipart upload does not exist	404 Not Found
NoSuchBucket	Specified Bucket policy does not exist	404 Not Found
MethodNotAllowed	The HTTP method is not supported by this resource	405 Method Not Allowed
BucketAlreadyExists	BucketName specified by CreateBucket is already in use. Select another BucketName	409 Conflict
BucketNotEmpty	Delete files and unfinished multipart upload tasks before performing DeleteBucket operation	409 Conflict
InvalidBucketState	Bucket status conflicts with operation request, for example, multi-version management conflicts with cross-region duplication	409 Conflict
actionAborted	This operation is not supported by specified resource	409 Conflict
MissingContentLength	Header Content-Length is missing	411 Length Required
PreconditionFailed	Precondition matching failed	412 Precondition
InvalidRange	Requested file range is invalid	416 Requested Range Not Satisfiable
InvalidSHA1Digest	sha1 of the request content is invalid	400 Bad Request
NoSuchUpload	"uploadid" specified when performing multipart upload operation does not exist	400 Bad Request
InvalidPart	Part is missing	400 Bad Request
InvalidPartOrder	The numbers of uploaded parts are discontinuous	400 Bad Request
ObjectNotAppendable	Specified file is not appendable	400 Bad Request

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Error Code	Description	HTTP Status Code
AppendPositionErr	Append: file length is inconsistent with position	400 Bad Request
NoSuchVersion	Specified version does not exist	400 Bad Request
NoLifecycle	Lifecycle does not exist	400 Bad Request
PreconditionFailed	Precondition matching failed	400 Bad Request
UnexpectedContent	Relevant content is not supported for the request	400 Bad Request
MultiBucketNotSupport	Only one bucket is configured for cross-region duplication	400 Bad Request
NotSupportedStorageClass	Specified storage type is invalid	400 Bad Request
InvalidAccessKeyId	AccessKey does not exist	403 Forbidden
ExpiredToken	Signature string expired	403 Forbidden

5XX Errors

Error code	Description	HTTP status code
InternalError	Internal error occurred on the server end	500 Internal Server
NotImplemented	A method in the Header cannot be implemented	501 Not Implemented
ServiceUnavailable	Internal error on the server. Try again	503 Service Unavailable
SlowDown	Please reduce access frequency	503 Slow Down

Other Errors

Error code	Description	HTTP status code
InvaildAddressingHeader	Anonymous access is required	N/A

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Request signature

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Note:

1. This document applies only to the COS V5 version, which can be viewed on the COS console after login.
2. This document does not apply to the HTTP requests of POST object.

With the Object Storage Service (COS), an anonymous HTTP request or HTTP signature request can be made to the COS through the RESTful API. For a signature request, the COS server will authenticate its initiator.

- Anonymous request: The HTTP request does not include any identity and authentication information, and the HTTP request is performed through the RESTful API.
- Signature request: A signature is added in the HTTP request, and authentication is performed after the COS server receives the message. The request is accepted and executed after a successful authentication, otherwise it is discarded with an error message.

Tencent Cloud COS object storage is authenticated based on the custom HTTP solution for key HMAC (Hash Message Authentication Code).

Signature Usage Scenarios

In scenarios where the COS object storage service is used, the object can usually be set to public read and private write for the data that requires an external publishing class. That is, the object can be viewed by everyone and written through the specified account or IP of ACL policies. In this case, you can associate the ACL policy with an API request signature to authenticate the access, and control the permissions and expiration of the operation.

Note:

The API request signature described herein is already included if you are using SDK for development. ** You only need to follow the steps described herein if you want to make a secondary development through the original APIs.

In the above scenario, a variety of safety protections can be included for the API request:

1. **Requester Authentication**. Confirm the requester identity with the unique ID and key of a visitor.
2. **Prevent Tampering of Transmission Data**. Encrypt and verify the data to ensure the integrity of transmission content.
3. **Prevent Theft of Signature**. Set the timeliness of signature, and encrypt data, so as to avoid the signature theft and re-use.

Signature Process

The client signs the HTTP request, and then sends it to Tencent Cloud for signature verification. The specific process is shown in the figure below.

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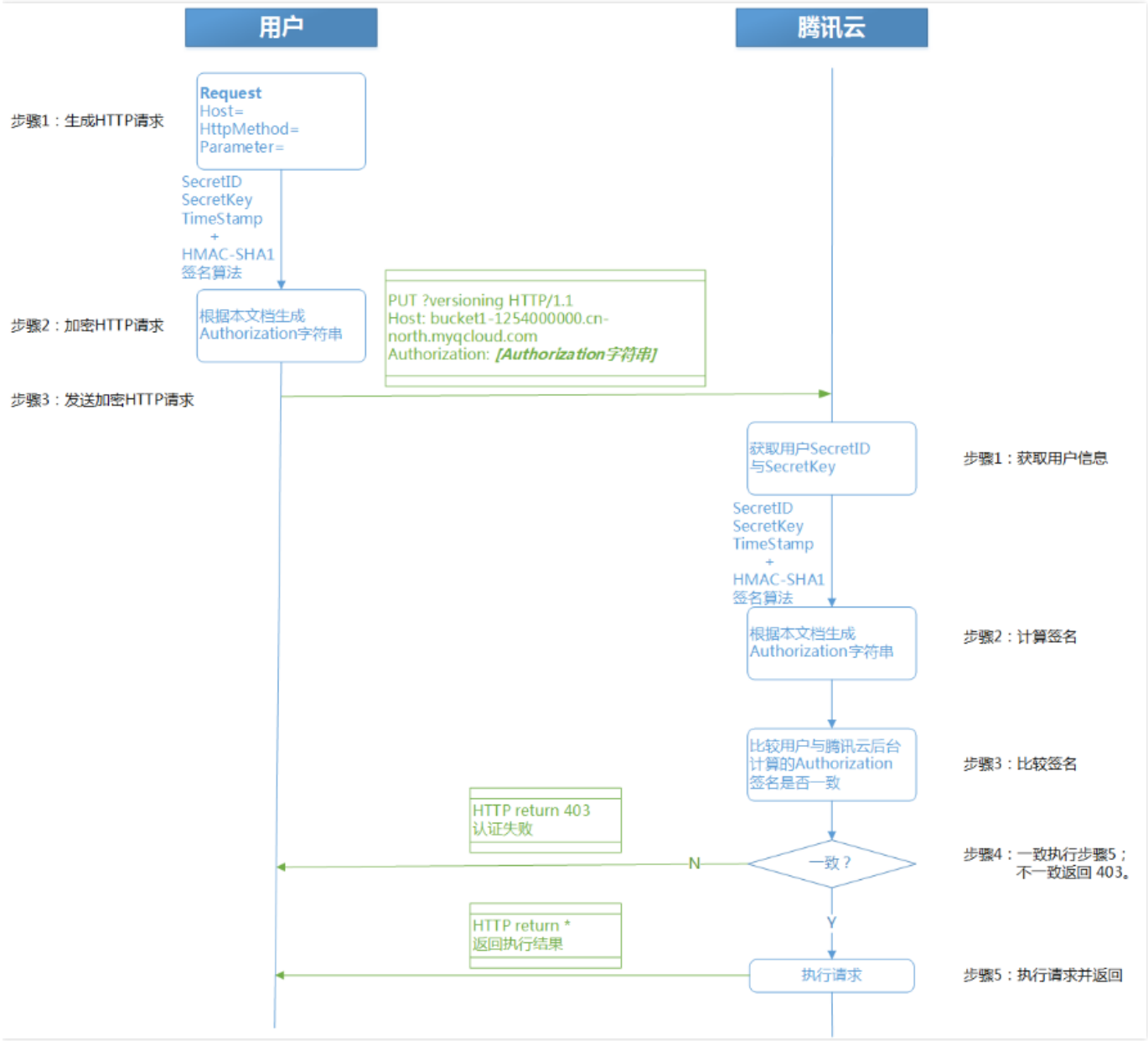

Preparations

1. APPID, SecretId and SecretKey.
   They are available on the Cloud API Key page of console.
2. Specify the development languages:
   Support but not limited to Java, PHP, C Sharp, C++, node.js, Python, and specify the corresponding HMAC-SHA1, SHA1 functions.

Signature Content

The HTTP signature request initiated to COS through the RESTful API is passed by using the standard HTTP Authorization header, as shown in the following example:

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```
PUT ?versioning HTTP/1.1
Host: bucket1-1254000000.cos.ap-beijing.myqcloud.com
Authorization: q-sign-algorithm=sha1&q-ak=AKIDQjz3ltompVjBni5LitkWHFlFpwkn9U5q&q-sign-time=1480932292;1481012298&q-key-time=1480932292;1481012298&q-header-list=host&q-url-param-list=versioning&q-signature=438023e4a4207299d87bb75d1c739c06cc9406bb
```

Where, the signature content is formed by a number of key=value pairs linked with "&". The format is as follows:

```
q-sign-algorithm=sha1&q-ak=[SecretID]&q-sign-time=[SignTime]&
q-key-time=[KeyTime]&q-header-list=[SignedHeaderList]&
q-url-param-list=[SignedParameterList]&q-signature=[Signature]
```

Key Value Description

Where, the key value (key=value) pairs which form the signature content are described as follows:

Key(key)	Value(value)	Description
q-sign-algorithm	sha1	Required. It is sha1, as only sha1 is currently supported for the signature algorithm.
q-ak	parameter[*SecretID*]	Required. Account ID, namely SecretID, which is available on the Cloud API Key page of console. **For example:** AKIDQjz3ltompVjBni5LitkWHFlFpwkn9U5q.
q-sign-time	parameter[*SignTime*]	Required. The valid start/end time of this signature, which are described by the Unix timestamp[Note 1] in seconds, in the format of [*start-seconds*];[*end-seconds*]. **For example:** 1480932292;1481012298.
q-key-time	parameter[*KeyTime*]	Required. Its value is the same as q-sign-time.
q-header-list	parameter[*SignedHeaderList*]	Required. HTTP request header. Some or all keys need to be extracted from key:value pairs. The key need to be converted to lowercase, and multiple keys need to be sorted in lexicographical order and can be connected by ";". **For example:** Suppose an HTTP request "Host: bucket1-1254000000.cos.ap-beijing.myqcloud.com Content-Type: image/jpeg". Its SignedHeaderList is content-type;host.

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Key(key)	Value(value)	Description
q-url-param-list	parameter[*SignedParameterList*]	Required. HTTP request parameters. Some or all keys need to be extracted from key:value pairs. The key need to be converted to lowercase, and multiple keys need to be sorted in lexicographical order and can be connected by ";". **For example:** Suppose an HTTP requrest "GET /?prefix=abc&max-keys=20". Its SignedParameterList is max-keys;prefix or prefix.
q-signature	parameter[Signature]	Required. For HTTP content signature, please see Signature Calculation.

Note 1: **About q-sign-time and q-key-time**

1. Unix timestamp is the total number of seconds from Greenwich time at 00:00:00 on January 01, 1970 (Beijing time at 08:00:00 on January 01, 1970) to the current time.
2. The end timestamp must be greater than the start timestamp, otherwise it will cause the signature to expire immediately.

Signature Calculation

Signature calculation is divided into four steps:

1. Encrypt the calculated value SignKey for the valid start/end time of the temporary key.
2. Generate HttpString according to the fixed format combination.
3. Encrypt HttpString, and generate StringToSign according to the fixed format combination.
4. Encrypt StringToSign to generate Signature.

Code Description

The pseudo codes are:

```
SignKey = HMAC-SHA1(SecretKey,"[q-key-time]")
HttpString = [HttpMethod]\n[HttpURI]\n[HttpParameters]\n[HttpHeaders]\n
StringToSign = [q-sign-algorithm]\n[q-sign-time]\nSHA1-HASH(HttpString)\n
Signature = HMAC-SHA1(SignKey,StringToSign)
```

Where the following parts should be adapted to language specifications under different development language environments:

1. The definition and assignment of variables. Please update according to the specification of the language used.
2. The pseudo function SHA1_FUNC. It is output in hexadecimal lowercase. Please replace it with the corresponding function in the development language used, as shown in the following table:

Pseudo function	PHP	Java
HMAC-SHA1	hash_hmac	HmacUtils.hmacSha1Hex
SHA1-HASH	sha1	DigestUtils.sha1Hex

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Code Example (PHP)

For example, in the PHP development environment, the above codes are:

```
$SignKey = hash_hmac($SecretKey,"[q-key-time]")
$HttpString = [HttpMethod]\n[HttpURI]\n[HttpParameters]\n[HttpHeaders]\n
$StringToSign = [q-sign-algorithm]\n[q-sign-time]\nsha1($HttpString)\n
$Signature = hash_hmac($SignKey,$StringToSign)
```

Parameter Description

Parameter	Description
[q-key-time]	must be consistent with the q-key-time descripted in Key Description.
[HttpMethod]	HTTP request method. Only lowercase is supported, such as get, post, put, delete, head, and options. **For example:** Suppose an HTTP request "GET /testfile". Its HttpMethod is get.
[HttpURI]	The URI part of an HTTP request. Namely the part starting from the "/" virtual root path. **For example:** Suppose an HTTP request "GET /testfile". Its HttpURI is /testfile.
[HttpParameters]	HTTP request parameter. This is the part after "?" and linked with "&" in URI. You need to select part or all of key=value pairs, and the key and value are required to be converted to lowercase. Many pairs of key=value are linked with "&" and sorted in the lexicographical order. **For example:** Suppose an HTTP request "GET /?prefix=abc&max-keys=20". Its HttpParameters is max-keys=20&prefix=abc or prefix=abc. **Note:** The key in the key=value pair it contains must be consistent with the key in q-url-param-list descripted in Key Description.
[HttpHeaders]	HTTP request header. You need to select part or all of the key:value pairs, and convert them into the key=value format. Besides, the key needs to be converted to lowercase, and the URLEncode conversion is to perform on its value. Multiple pairs of key=value are linked with "&" and sorted in the lexicographical order. **For example:** Suppose an HTTP request "Host: bucket1-1254000000.cos.ap-beijing.myqcloud.com Content-Type: image/jpeg". Its HttpHeaders is content-type=image/jpeg&host=bucket1-1254000000.cos.ap-beijing.myqcloud.com. **Note:** The key in the key=value pair it contains must be consistent with the key in q-header-list descripted in Key Description.
[q-sign-algorithm]	sha1. Only sha1 encryption algorithm is currently supported.
[q-sign-time]	Must be consistent with the q-sign-time descripted in Key Description.

Parameter Instance

Parameter	Value
[q-key-time]	1417773892;1417853898
[HttpMethod]	get
[HttpURI]	/testfile

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Parameter	Value
[HttpParameters]	max-keys=20&prefix=abc
[HttpHeaders]	host=bucket1-1254000000.cos.ap-beijing.myqcloud.com
[q-sign-algorithm]	sha1
[q-sign-time]	1417773892;1417853898

Examples

A user wants to download and upload objects using the API calling method, and make a signature to the calling.

Preparations

Obtain APPID, SecretId, and SecretKey by logging in to the Cloud API Key page, and specify the development language as follows:

APPID	SecretId	SecretKey	Development Language
1254000000	AKIDQjz3ltompVjBni5LitkWHFlFpwkn9U5q	BQYIM75p8x0iWVFSIgqEKwFprpRSVHlz	PHP

Upload Objects

Requirement: Upload objects to the Bucket bucket1

The original HTTP request is:

```
PUT /testfile2 HTTP/1.1
Host: bucket1-1254000000.cos.ap-beijing.myqcloud.com
x-cos-content-sha1: 7b502c3a1f48c8609ae212cdfb639dee39673f5e
x-cos-storage-class: nearline

Hello world
```

The signed HTTP request is:

```
PUT /testfile2 HTTP/1.1
Host: bucket1-1254000000.cos.ap-beijing.myqcloud.com
x-cos-content-sha1: 7b502c3a1f48c8609ae212cdfb639dee39673f5e
x-cos-storage-class: nearline
Authorization: q-sign-algorithm=sha1&q-ak=AKIDQjz3ltompVjBni5LitkWHFlFpwkn9U5q&q-sign-time=1417773892;1417853898&q-key-time=1417773892;1417853898&q-header-list=host;x-cos-content-sha1;x-cos-storage-class&q-url-param-list=&q-signature=84f5be2187452d2fe276dbdca932143ef8161145

Hello world
```

The value and description corresponding to each parameter are as follows:

Key(key)	Value(value)	Note
q-sign-algorithm	sha1	Only sha1 signature algorithm is currently supported.
q-ak	AKIDQjz3ltompVjBni5LitkWHFlFpwkn9U5q	SecretId field

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Key(key)	Value(value)	Note
q-sign-time	1417773892;1417853898	2014/12/5 18:04:52 to 2014/12/6 16:18:18
q-key-time	1417773892;1417853898	2014/12/5 18:04:52 to 2014/12/6 16:18:18
q-header-list	host;x-cos-content-sha1;x-cos-storage-class	The list of HTTP header keys in lexicographical order.
q-url-param-list		The HTTP parameter list is empty.
q-signature	84f5be2187452d2fe276dbdca932143ef8161145	Calculated by codes

Where, the calculation code of q-signature is:

```
$signTime = '1417773892;1417853898';
$signKey = hash_hmac('sha1', $signTime, 'BQYIM75p8x0iWVFSIgqEKwFprpRSVHlz');
$httpString = "put\n/testfile2\n\nhost=bucket1-1254000000.cos.ap-beijing.myqcloud.com&x-cos-content-sha1=7b502c3a1f48c8609ae212cdfb639dee39673f5e&x-cos-storage-class=nearline\n";
$sha1edHttpString = sha1($httpString);
$stringToSign = "sha1\n$signTime\n$sha1edHttpString\n";
$signature = hash_hmac('sha1', $stringToSign, $signKey);
```

Download Objects

Requirement: Download the first 4 bytes of objects in the Bucket bucket1

The original HTTP request is:

```
GET /testfile HTTP/1.1
Host: bucket1-1254000000.cos.ap-beijing.myqcloud.com
Range: bytes=0-3
```

The signed HTTP request is:

```
GET /testfile HTTP/1.1
Host: bucket1-1254000000.cos.ap-beijing.myqcloud.com
Range: bytes=0-3
Authorization: q-sign-algorithm=sha1&q-ak=AKIDQjz3ltompVjBni5LitkWHFlFpwkn9U5q&q-sign-time=1417773892;1417853898&q-key-time=1417773892;1417853898&q-header-list=host;range&q-url-param-list=&q-signature=4b6cbab14ce01381c29032423481ebffd514e8be
```

The value and description corresponding to each parameter are as follows:

Key(key)	Value(value)	Note
q-sign-algorithm	sha1	Only sha1 signature algorithm is currently supported.
q-ak	AKIDQjz3ltompVjBni5LitkWHFlFpwkn9U5q	SecretId field
q-sign-time	1417773892;1417853898	2014/12/5 18:04:52 to 2014/12/6 16:18:18

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Key(key)	Value(value)	Note
q-key-time	1417773892;1417853898	2014/12/5 18:04:52 to 2014/12/6 16:18:18
q-header-list	host;range	List of HTTP header keys
q-url-param-list		The HTTP parameter list is empty.
q-signature	4b6cbab14ce01381c29032423481ebffd514e8be	Calculated by codes

Where, the calculation code of q-signature is:

```
$signTime = '1417773892;1417853898';
$signKey = hash_hmac('sha1', $signTime, 'BQYIM75p8x0iWVFSIgqEKwFprpRSVHlz');
$httpString = "get\n/testfile\n\nhost=bucket1-1254000000.cos.ap-beijing.myqcloud.com&range=bytes=0-3\n";
$sha1edHttpString = sha1($httpString);
$stringToSign = "sha1\n$signTime\n$sha1edHttpString\n";
$signature = hash_hmac('sha1', $stringToSign, $signKey);
```

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Overview

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Below are Tencent Cloud Object Storage (COS) service related APIs and their descriptions:

About Service Operation

API	Description
Get Service	List all Buckets under this account

About Bucket Operations

API	Description
Get Bucket	List some or all of the Objects under the specified Bucket
Get Bucket ACL	Obtain the ACL table of the Bucket
Get Bucket CORS	Obtain the cross-domain access configuration of the Bucket
Get Bucket Location	Obtain the region of the Bucket
Get Bucket Lifecycle	Read lifecycle management configurations
Put Bucket	Create a Bucket under the specified account
Put Bucket ACL	Write to the ACL table of the Bucket
Put Bucket CORS	Configure the cross-domain access permission of the Bucket
Put Bucket Lifecycle	Set the features for lifecycle management
Delete Bucket	Delete the Bucket under the specified account
Delete Bucket CORS	Delete the cross-domain access configuration of the Bucket
Delete Bucket Lifecycle	Delete lifecycle management
Head Bucket	Confirm whether a specified Bucket exists under the specified account
List Multipart Uploads	Query the ongoing multipart upload

About Object Operations

API	Description
Append Object	Upload an Object (file/object) to the specified Bucket via multipart upload method
Get Object	Download an Object (file/object) to the local computer
Get Object ACL	Obtain the ACL table of the Object (file/object)
Put Object	Upload an Object (file/object) to the specified Bucket

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API	Description
Put Object ACL	Write to the ACL table of the Object (file/object)
Delete Object	Delete the specified Object (file/object) in the Bucket
Delete Multiple Object	Delete Objects (files/objects) in batch in the Bucket
Head Object	Obtain the meta information of the Object
Options Object	A preflight request for cross-domain access
Initiate Multipart Upload	Initialize the Multipart Upload operation
List Multipart Uploads	Multipart upload files
List Parts	Query the uploaded parts in a specific multipart upload operation
Complete Multipart Upload	Complete the multipart upload of the entire file
Abort Multipart Upload	Abort a multipart upload operation and delete the uploaded parts
Put Object Copy	Copy a file from the source path to the destination path

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Service APIs
GET Service

Last updated：2018-08-13 10:20:24

Description

The API Get Service is used to obtain all Bucket lists of the requester. The API does not support anonymous requests. To obtain Bucket list, you should use a request authenticated by Authorization signature. In addition, this API can only obtain the Bucket list under the account to which the AccessID in signature belongs.

Request

Syntax:

```
GET / HTTP/1.1
Host: service.cos.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
GET / HTTP/1.1
```

This API allows GET request.

Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common header

No particular request header information for this request operation.

Request Body

The request body of this request is null.

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

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No particular response header for this response.

Response Body

application/xml data is returned for the response body, including the complete node data, as show below:

```
<ListAllMyBucketsResult>
<Owner>
<ID></ID>
<DisplayName></DisplayName>
</Owner>
<Buckets>
<Bucket>
<Name></Name>
<Location></Location>
<CreateDate></CreateDate>
</Bucket>
...
</Buckets>
</ListAllMyBucketsResult>
```

Detailed data content is shown as below:

Node Name (Keyword)	Parent Node	Description	Type
ListAllMyBucketsResult	No	List all the information returned for the request	Container

Content of Container node ListAllMyBucketsResult:

Node Name (Keyword)	Parent Node	Description	Type
Owner	ListAllMyBucketsResult	Provide the information of Bucket owner	Container
Buckets	ListAllMyBucketsResult	List all the information of Bucket lists returned for the request	Container

Content of Container node Owner:

Node Name (Keyword)	Parent Node	Description	Type
ID	ListAllMyBucketsResult.Owner	ID of Bucket owner	String
DisplayName	ListAllMyBucketsResult.Owner	Name information of Bucket owner	String

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Content of Container node Buckets:

Node Name (Keyword)	Parent Node	Description	Type
Bucket	ListAllMyBucketsResult.Buckets	Information of a single Bucket	Container

Content of Container node Bucket:

Node Name (Keyword)	Parent Node	Description	Type
Name	ListAllMyBucketsResult.Buckets.Bucket	Name of Bucket	String
Location	ListAllMyBucketsResult.Buckets.Bucket	Region in which Bucket resides. For enumerated values, please see the document Available Regions, such as: ap-beijing, ap-hongkong, eu-frankfurt, etc.	String
CreateDate	ListAllMyBucketsResult.Buckets.Bucket	Date on which the Bucket was created. It takes an ISO8601 format, for example, 2016-11-09T08:46:32.000Z	Date

Practical Case

Request

```
GET / HTTP/1.1
Host: service.cos.myqcloud.com
Date: Thu, 12 Jan 2016 19:12:22 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1489110340;32468694340
&q-key-time=1489110340;32562006340&q-header-list=host&q-url-param-list=&q-signature=cb46d5ce6daed2d3dc0db7130a571934
97605620
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 19935
Connection: keep-alive
Date: Thu, 12 Jan 2016 19:12:22 GMT
Server: tencent-cos
x-cos-request-id: NThjMjA1NGFfNTViMjM1XzI0NWRfMjA4OGIx
```

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```
<ListAllMyBucketsResult>
<Owner>
<ID>qcs::cam::uin/1147518609:uin/1147518609</ID>
<DisplayName>1147518609</DisplayName>
</Owner>
<Buckets>
<Bucket>
<Name>01</Name>
<Location>ap-beijing</Location>
<CreateDate>2016-09-13 15:20:15</CreateDate>
</Bucket>
<Bucket>
<Name>0111</Name>
<Location>ap-hongkong</Location>
<CreateDate>2017-01-11 17:23:51</CreateDate>
</Bucket>
<Bucket>
<Name>1201new</Name>
<Location>eu-frankfurt</Location>
<CreateDate>2016-12-01 09:45:02</CreateDate>
</Bucket>
</Buckets>
</ListAllMyBucketsResult>
```

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Bucket APIs
DELETE Bucket

Last updated：2018-08-31 19:36:17

Description

Delete Bucket API request is used to delete a Bucket under a specified account. The Bucket must be empty before it can be deleted. The Bucket can be deleted only if its content is removed.

Request

Syntax:

```
DELETE / HTTP/1.1
Host: <BucketName>-<APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
DELETE / HTTP/1.1
```

This API allows DELETE request.

Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

No particular request header information for this request operation.

Request Body

The request body of this request is null.

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

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No particular response header for this response.

Response Body

Null is returned for the response body,

Practical Case

Request

```
DELETE / HTTP/1.1
Host: arlenhuangtestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
Date: Wed, 23 Oct 2016 21:32:00 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484708950;32557604950&q-key-time=1484708950;32557604950&q-header-list=host&q-url-param-list=&q-signature=2b27b72ad2540ff2dde341dc7579a66ee8cb2afc
```

Response

```
HTTP /1.1 204 OK
Content-Type: application/xml
Content-Length: 0
Connection: keep-alive
Date: Wed, 23 Oct 2016 21:32:00 GMT
Server: tencent-cos
x-cos-request-id: NTg3ZWRjNjBfOTgxZjRlXzZhYjlfMTg0
```

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DELETE Bucket cors

Last updated：2018-08-13 10:22:05

Description

DELETE Bucket cors API request is used to delete configuration information of cross-domain access.

Request

Syntax:

```
DELETE /?cors HTTP/1.1
Host: <Bucketname-APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature)

Request Line

```
DELETE /?cors HTTP/1.1
```

This API allows DELETE request.

Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

No particular request header information for this request operation.

Request Body

The request body of this request is null.

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

No particular response header for this response.

Response Body

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Null is returned for the response body.

Practical Case

Request

```
DELETE /?cors HTTP/1.1
Host: arlenhuangtestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
Date: Tue, 23 Oct 2016 21:32:00 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484816036;32557712036&q-key-time=1484816036;32557712036&q-header-list=host&q-url-param-list=cors&q-signature=e92eecbf0022fe7e5fd39b2c500b22da062be50a
```

Response

```
HTTP /1.1 204 No Content
Content-Type: application/xml
Content-Length: 405
Connection: keep-alive
Date: Tue, 23 Oct 2016 21:32:00 GMT
Server: tencent-cos
x-cos-request-id: NTg4MDdlYWNfOTgxZjRlXzZhYTlfZjAz
x-cos-trace-id: OGVmYzZiMmQzYjA2OWNhODk0NTRkMTBiOWVmMDAxODczNTBmNjMwZmQ0MTZkMjg0NjlkNTYyNmY4ZTRkZTk0N2M2MTdkZGZlMGNhOWQyYjk3MWNmNWNkYzFhMjQzNzRiZTE1NjgzNzFhOGI5M2EwZDMyNGM4Y2ZmMzhiNTllMjk=
```

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DELETE Bucket lifecycle

Last updated：2018-08-13 10:22:27

Description

DELETE Bucket lifecycle is used to delete the life cycle configuration of the Bucket. If the Bucket does not have a lifecycle rule configured, it will return NoSuchLifecycleConfiguration.

##Request
Grammar example:

```
DELETE /?lifecycle HTTP/1.1
Host: <BucketName-APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String , see the section Request Signature for details.

Request line

```
DELETE /?lifecycle HTTP/1.1
```

The API interface accepts a `DELETE` request.

Request header

Common headers

The implementation of this request operation uses the common request header. For details on the common request header, see the Common Request Header section.

Non-common header

The request operation has no special request header information.

Request body

The request request body is empty.

Response

Response header

Common response header

The response uses a common response header. For a detailed description of the public response header, see the Common Response Header section.

Unique response header

The request operation has no special response header information.

Response

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The request response body is empty.

Error codes

Error code	Description	Status Code
None	Deleted successfully. The response body returns empty	204 No Content
NoSuchBucket	The Bucket does not exist	404 Not Found

Sample Code

Request

```
DELETE /?lifecycle HTTP/1.1
Host:lifecycletest-73196696.cos.ap-beijing.myqcloud.com
Date: Wed, 16 Aug 2017 12:59:09 GMT
Authorization:q-sign-algorithm=sha1&q-ak=AKIDZfbOAo7cIlgPvF9cXFrJD0a1ICvR98JM&q-sign-time=1502859472;1502939472&q-key-time=1502859472;1502939472&q-header-list=host&q-url-param-list=lifecycle&q-signature=49c1414c700643f11139219384332a3ec4e9485b
```

Response

```
HTTP /1.1 204 No Content
Content-Type: application/xml
Date: Wed, 16 Aug 2017 12:59:09 GMT
Server: tencent-cos
X-cos-request-id: NTk5NDQxOWNfMjQ4OGY3Xzc3NGRfMjE=
```

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GET Bucket

Last updated：2018-08-13 10:23:45

Description

Get Bucket request is identical to List Object request. It is used to list partial or all of the Objects under the Bucket. The caller of this API requires Read permission for the Bucket.

Request

Syntax:

```
GET / HTTP/1.1
Host: <BucketName>-<APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
GET / HTTP/1.1
```

This API allows GET request.

Request Parameters

Example of request line that contains all request parameters.

```
GET /?prefix=Prefix&delimiter=Delimiter&encoding-type=EncodingType&marker=Marker&max-keys=MaxKeys HTTP/1.1
```

See the details below:

Parameter Name	Description	Required
prefix	Prefix match, used to specify the prefix address of the returned file	No
delimiter	Delimiter is a sign. If Prefix exists, the same paths between Prefix and delimiter are grouped as the same type and defined as Common Prefix, and then all Common Prefixes are listed. If Prefix does not exist, the listing process starts from the beginning of the path	No
encoding-type	Specify the encoding method of the returned value. Available value: url	No
marker	Entries are listed using UTF-8 binary order by default, starting from the marker	No
max-keys	Maximum number of entries returned each time. Default is 1,000	No

Request Header

Common Header

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This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

No particular request header information for this request operation.

Request Body

The request body of this request is null.

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

No particular response header for this response.

Response Body

application/xml data is returned for the response body, including the complete node data, as show below:

```
<ListBucketResult>
<Name></Name>
<Encoding-Type></Encoding-Type>
<Prefix></Prefix>
<Marker></Marker>
<MaxKeys></MaxKeys>
<IsTruncated></IsTruncated>
<NextMarker></NextMarker>
<Contents>
<Key></Key>
<LastModified></LastModified>
<ETag></ETag>
<Size></Size>
<Owner>
<ID></ID>
</Owner>
<StorageClass></StorageClass>
</Contents>
<CommonPrefixes>
<Prefix></Prefix>
</CommonPrefixes>
</ListBucketResult>
```

Detailed data content is shown as below:

Node Name (Keyword)	Parent Node	Description	Type

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Node Name (Keyword)	Parent Node	Description	Type
ListBucketResult	None	Store all the information of Get Bucket request result	Container

Content of Container node ListBucketResult:

Node Name (Keyword)	Parent Node	Description	Type
Name	ListBucketResult	Provide the information of Bucket	String
Encoding-Type	ListBucketResult	Encoding method	String
Prefix	ListBucketResult	Prefix match, used to specify the prefix address of the file returned for response request	String
Marker	ListBucketResult	Entries are listed using UTF-8 binary order by default, starting from the marker	String
MaxKeys	ListBucketResult	Maximum number of entries of the result returned for response request each time	String

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Node Name (Keyword)	Parent Node	Description	Type
IsTruncated	ListBucketResult	Whether the response request entry is truncated. Boolean: true, false	Boolean
NextMarker	ListBucketResult	If the returned entry is truncated, the returned NextMarker indicates the beginning of the next entry	String
Contents	ListBucketResult	Metadata information	Container
CommonPrefixes	ListBucketResult	The same paths between Prefix and delimiter are grouped as the same type and defined as Common Prefix	Container

Content of Container node Contents:

Node Name (Keyword)	Parent Node	Description	Type
Key	ListBucketResult.Contents	Key of Object	String
LastModified	ListBucketResult.Contents	The last modification time of Object	Date
ETag	ListBucketResult.Contents	MD-5 algorithm check value of the file	String
Size	ListBucketResult.Contents	File size (in Byte)	String
Owner	ListBucketResult.Contents	Information of Bucket owner	Container

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Node Name (Keyword)	Parent Node	Description	Type
StorageClass	ListBucketResult.Contents	The storage class of Object. Enumerated values: STANDARD, STANDARD_IA, NEARLINE	String

Content of Container node CommonPrefixes:

Node Name (Keyword)	Parent Node	Description	Type
Prefix	ListBucketResult.Contents.CommonPrefixes	Single Common prefix	Container

Content of Container node Owner:

Node Name (Keyword)	Parent Node	Description	Type
ID	ListBucketResult.Contents.Owner	AppID of Bucket	Container

Practical Case

Request

```
GET / HTTP/1.1
Host: zuhaotestnorth-1251668577.cos.ap-beijing.myqcloud.com
Date: Wed, 18 Oct 2014 22:32:00 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484213451;32557109451
&q-key-time=1484213451;32557109451&q-header-list=host&q-url-param-list=&q-signature=0336a1fc8350c74b6c081d4dff8e7a2db9
007dce
```

Response

```
HTTP /1.1 200 OK
Content-Type: application/xml
Content-Length: 1132
Connection: keep-alive
Vary: Accept-Encoding
Date: Wed, 18 Oct 2014 22:32:00 GMT
Server: tencent-cos
x-cos-request-id: NTg3NzRjY2VfYmRjMzVfMTc5M182MmIyNg==

<?xml version='1.0' encoding='utf-8' ?>
<ListBucketResult>
<Name>zuhaotestnorth</Name>
<Encoding-Type>url</Encoding-Type>
<Prefix>ela</Prefix>
<Marker/>
<MaxKeys>1000</MaxKeys>
<Delimiter>/</Delimiter>
```

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```
<IsTruncated>false</IsTruncated>
<NextMarker>1234.txt</NextMarker>
<Contents>
<Key>testL</Key>
<LastModified>2017-06-23T12:33:26.000Z</LastModified>
<ETag>"79f2a852fac7e826c9f4dbe037f8a63b"</ETag>
<Size>10485760</Size>
<Owner>
<ID>1252375641</ID>
</Owner>
<StorageClass>STANDARD</StorageClass>
</Contents>
<Contents>
<Key>testL1</Key>
<LastModified>2017-06-23T12:33:26.000Z</LastModified>
<ETag>"3f9a5dbff88b25b769fa6304902b5d9d"</ETag>
<Size>10485760</Size>
<Owner>
<ID>1252375642</ID>
</Owner>
<StorageClass>STANDARD</StorageClass>
</Contents>
<Contents>
<Key>testLLL</Key>
<LastModified>2017-06-23T12:33:26.000Z</LastModified>
<ETag>"39bfb88c11c65ed6424d2e1cd4db1826"</ETag>
<Size>10485760</Size>
<Owner>
<ID>1252375643</ID>
</Owner>
<StorageClass>STANDARD</StorageClass>
</Contents>
<Contents>
<Key>testLOL</Key>
<LastModified>2017-06-23T12:33:26.000Z</LastModified>
<ETag>"fb31459ad10289ff49327fd91a3e1f6a"</ETag>
<Size>4</Size>
<Owner>
<ID>1252375644</ID>
</Owner>
<StorageClass>STANDARD</StorageClass>
</Contents>
</ListBucketResult>
```


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GET Bucket acl

Last updated：2018-08-13 10:24:13

Description

GET Bucket acl API is used to obtain ACL (access control list) of Bucket, that is, the access permission control list of Bucket. Only the Bucket owner has permission to use this API.

Request

Syntax:

```
GET /?acl HTTP/1.1
Host: <BucketName>-<APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
GET /?acl HTTP/1.1
```

This API allows GET request.

Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

Required Header

This request operation is implemented using the following required headers:

Name	Description	Type	Required
Authorization	Signature string	String	Yes

Request Body

The request body of this request is null.

Response

Response Header

Common Response Header

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This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

No particular response header for this response.

Response Body

application/xml data is returned for the response body, including the complete node data, as show below:

```
<AccessControlPolicy>
<Owner>
<ID>qcs::cam::uin/<OwnerUin>:uin/<SubUin></ID>
<DisplayName>qcs::cam::uin/<OwnerUin>:uin/<SubUin></DisplayName>
</Owner>
<AccessControlList>
<Grant>
<Grantee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="RootAccount">
<ID>qcs::cam::uin/<OwnerUin>:uin/<SubUin></ID>
<DisplayName>qcs::cam::uin/<OwnerUin>:uin/<SubUin></DisplayName>
</Grantee>
<Permission></Permission>
</Grant>
<Grant>
<Grantee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="RootAccount">
<ID>qcs::cam::uin/<OwnerUin>:uin/<SubUin></ID>
<DisplayName>qcs::cam::uin/<OwnerUin>:uin/<SubUin></DisplayName>
</Grantee>
<Permission></Permission>
</Grant>
</AccessControlList>
</AccessControlPolicy>
```

Detailed data content is shown as below:

Node Name (Keyword)	Parent Node	Description	Type
AccessControlPolicy	None	Container for saving results of Get Bucket ACL	Container

Content of Container node AccessControlPolicy:

Node Name (Keyword)	Parent Node	Description	Type
Owner	AccessControlPolicy	Information of Bucket owner	Container
AccessControlList	AccessControlPolicy	Information of authorized account and permissions	Container

Content of Container node Owner:

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Node Name (Keyword)	Parent Node	Description	Type
ID	AccessControlPolicy.Owner	Bucket owner ID. Format: qcs::cam::uin/<OwnerUin>:uin/<SubUin> in case of root account, <OwnerUin> and <SubUin> use the same value	String
DisplayName	AccessControlPolicy.Owner	Name of Bucket owner	String

Content of Container node AccessControlList:

Node Name (Keyword)	Parent Node	Description	Type
Grant	AccessControlPolicy.AccessControlList	A single Bucket authorization information entry. Each AccessControlList can contain 100 Grant entries	Container

Content of Container node Grant:

Node Name (Keyword)	Parent Node	Description	Type
Grantee	AccessControlPolicy.AccessControlList.Grant	Provide the information of the authorized user. "type" can be RootAccount and Subaccount. In case of RootAccount, ID is specified as root account. In case of Subaccount, ID is specified as sub-account	Container
Permission	AccessControlPolicy.AccessControlList.Grant	Indicate the information of permissions granted to the authorized user. Enumerated value: READ, WRITE, FULL_CONTROL	String

Content of Container node Grantee:

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Node Name (Keyword)	Parent Node	Description	Type
ID	AccessControlPolicy.Owner	User ID. In case of root account, format: qcs::cam::uin/<OwnerUin>:uin/<OwnerUin> or qcs::cam::anyone:anyone (referring to all users). In case of sub-account, format: qcs::cam::uin/<OwnerUin>:uin/<SubUin>	String
DisplayName	AccessControlPolicy.Owner	Name of user	String

Practical Case

Request

```
GET /?acl HTTP/1.1
Host: zuhaotestnorth-1251668577.cos.ap-beijing.myqcloud.com
Date: Fri, 10 Mar 2016 09:45:46 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484213027;32557109027
&q-key-time=1484213027;32557109027&q-header-list=host&q-url-param-list=acl&q-signature=dcc1eb2022b79cb2a780bf062d3a40
e120b40652
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 266
Connection: keep-alive
Date: Fri, 10 Mar 2016 09:45:46 GMT
Server: tencent-cos
x-cos-request-id: NTg3NzRiMjVfYmRjMzVfMTViMl82ZGZmNw==

<AccessControlPolicy>
<Owner>
<ID>qcs::cam::uin/12345:uin/12345</ID>
<DisplayName>qcs::cam::uin/12345:uin/12345</DisplayName>
</Owner>
<AccessControlList>
<Grant>
<Grantee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="RootAccount">
<ID>qcs::cam::uin/12345:uin/12345</ID>
<DisplayName>qcs::cam::uin/12345:uin/12345</DisplayName>
</Grantee>
<Permission>FULL_CONTROL</Permission>
</Grant>
<Grant>
<Grantee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="RootAccount">
<ID>qcs::cam::uin/54321:uin/54321</ID>
<DisplayName>qcs::cam::anyone:anyone</DisplayName>
</Grantee>
<Permission>READ</Permission>
</Grant>
</AccessControlList>
</AccessControlPolicy>
```

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GET Bucket cors

Last updated：2018-08-13 10:24:39

Description

The API Get Bucket CORS helps Bucket owner configure the information of cross-origin resource shared on the Bucket. (CORS is short for cross-origin resource sharing, which is based on W3C standards). By default, the Bucket owner has the permission of this API and can grant it to others.

Request

Syntax:

```
GET /?cors HTTP/1.1
Host: <Bucketname-APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
GET /?cors HTTP/1.1
```

This API allows GET request.

Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

No particular request header information for this request operation.

Request Body

The request body of this request is null.

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

No particular response header for this response.

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Response Body

application/xml data is returned for the response body, including the complete node data, as show below:

```
<CORSConfiguration>
<CORSRule>
<ID></ID>
<AllowedOrigin></AllowedOrigin>
<AllowedMethod></AllowedMethod>
<AllowedHeader></AllowedHeader>
<MaxAgeSeconds></MaxAgeSeconds>
<ExposeHeader></ExposeHeader>
</CORSRule>
<CORSRule>
...
</CORSRule>
...
</CORSConfiguration>
```

Detailed data content is shown as below:

Node Name (Keyword)	Parent Node	Description	Type
CORSConfiguration	None	Provide all configuration information of cross-origin resource sharing, containing up to 100 CORSRule entries	Container

Content of Container node CORSConfiguration:

Node Name (Keyword)	Parent Node	Description	Type
CORSRule	CORSConfiguration	A single configuration information entry	Container

Content of Container node CORSRule:

Node Name (Keyword)	Parent Node	Description	Type
ID	CORSConfiguration.CORSRule	ID of the configuration rule (Optional)	String
AllowedOrigin	CORSConfiguration.CORSRule	Allowed access source. Wildcard "*" is supported Format: protocol://domain name[:port], such as: http://www.qq.com	String

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Node Name (Keyword)	Parent Node	Description	Type
AllowedMethod	CORSConfiguration.CORSRule	Allowed HTTP operations. Enumerated values: GET, PUT, HEAD, POST, DELETE	Enum
AllowedHeader	CORSConfiguration.CORSRule	When sending an OPTIONS request, notify the server end about which custom HTTP request headers are allowed to be used by subsequent requests. Wildcard "*" is supported	String
MaxAgeSeconds	CORSConfiguration.CORSRule	Configure the valid period for the results obtained by OPTIONS request	Integer
ExposeHeader	CORSConfiguration.CORSRule	Configure the custom header information from server end that can be received by browser	String

Practical Case

Request

```
GET /?cors HTTP/1.1
Host: arlenhuangtestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
Date: Wed, 28 Oct 2016 21:32:00 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484815944;32557711944
&q-key-time=1484815944;32557711944&q-header-list=host&q-url-param-list=cors&q-signature=a2d28e1b9023d09f9277982775a4b
3b705d0e23e
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 345
Connection: keep-alive
Date: Wed, 28 Oct 2016 21:32:00 GMT
Server: tencent-cos
x-cos-request-id: NTg4MDdlNGZfNDYyMDRlXzM0YWFfZTBh

<CORSConfiguration>
<CORSRule>
<ID>1234</ID>
<AllowedOrigin>http://www.qq.com</AllowedOrigin>
<AllowedMethod>PUT</AllowedMethod>
```

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```
<AllowedHeader>x-cos-meta-test</AllowedHeader>
<ExposeHeader>x-cos-meta-test1</ExposeHeader>
<MaxAgeSeconds>500</MaxAgeSeconds>
</CORSRule>
</CORSConfiguration>
```

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GET Bucket location

Last updated：2018-08-13 10:25:22

Description

The GET Bucket location API is used to obtain the location information of the Bucket. The GET operation uses the location sub-resource to return the location of the Bucket. Only the Bucket holder has the operation permission of the API.

Request

Request example:

```
GET /?location HTTP/1.1
Host: <Bucketname-APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (see Request Signature for details)

Request line

```
GET /?location HTTP/1.1
```

The API accepts `GET` requests.

Request header

Public header

The implementation of this request operation uses the common request header. For details on the common request header, see the Common Request Header.

Non-common head

The request operation has no special request header information.

Request body

The request request body is empty.

Response

Response header

Common response header

The response uses a common response header. For a detailed description of the public response header, see the Common Response Header section.

API response header

The request operation has no special response header information.

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Response body

The response body is empty if the upload is successful.

```
<?xml version="1.0" encoding="UTF-8" ?>
<LocationConstraint>string</LocationConstraint>
```

The specific data is described as follows:

Node Name	Parent Node	Description	Type	Required
LocationConstraint	None	Describes the location of the bucket. For the enumerated values, see Availability Zones documents, such as: ap-beijing, ap-hongkong, eu-Frankfurt et al	String	Yes

###Error Codes

Error Code	Description	HTTP Status Code
SignatureDoesNotMatch	Does not match the rule	403 Forbidden
NoSuchBucket	The Bucket does not exist	404 Not Found

Sample Code

Request

```
GET /?location HTTP/1.1
Host: arlenhuangtestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
Date: Wed, 18 Oct 2014 22:32:00 GMT
Authorization: q-sign-algorithm = sha1 & q-ak = AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO & q-sign-time = 1484817522; 32557
713522 & q-key-time = 1484817522; 32557713522 & q-header-list = host & q-url-param-list = location & q-signature = ceb96fc92966
3dd4d2e6dc0aeb304cdde6761ed
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 92
Connection: keep-alive
Date: Wed, 18 Oct 2014 22:32:00 GMT
Server: tencent-cos
X-cos-request-id: NTg4MDg0NzlfNDYyMDRlXzM0OWFfZjFk
```

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```
<LocationConstraint>cos.ap-beijing</LocationConstraint
```

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GET Buket lifecycle

Last updated：2018-08-13 10:26:07

Description

GET Buket lifecycle is used to query the life cycle configuration of the Bucket. If the Bucket does not have a lifecycle rule configured, it will return `NoSuchLifecycleConfiguration`.

Request

Grammar example:

```
GET /?lifecycle HTTP/1.1
Host: <BucketName-APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (see Request Signature for details)

Request Line

```
GET /?lifecycle HTTP/1.1
```

The API accepts `GET` requests.

Request header

Public Header

The implementation of this request operation uses the public request header. For details on the public request header, see the Common Request Header section.

Non-public Header

The request operation has no special request header information.

Request Body

The request body of the request is empty.

Response

Response Header

Public Response Header

The response uses a common response header. See the Public Response Header section for details on the public response header.

API-specific Response Header

There is no specific response header for this response.

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Response Body

The content and meaning of each element in the response body is the same as that of the PUT Buket lifecycle. For details, see PUT Bucket lifecycle request body node description.

Error Codes

The following describes some of the common mistakes and the special circumstances of this request may occur:

Error Code	HTTP Status Code	Description
NoSuchBucket	404 Not Found	The Bucket does not exist
NoSuchLifecycleConfiguration	404 Not Found	Lifecycle configuration does not exist.

For more information on COS error codes, or a list of all product errors, please see the Error Codes documentation.

Sample Code

Request

```
GET /?lifecycle HTTP/1.1
Host: lifecycletest-73196696.cos.ap-beijing.myqcloud.com
Date: Wed, 16 Aug 2017 12:23:54 GMT
Authorization: q-sign-algorithm = sha1 & q-ak = AKIDZfbOAo7cllgPvF9cXFrJD0a1ICvR98JM & q-sign-time = 1502857357; 1502937357 & q-key-time = 1502857357; 1502937357 & q-header-list = host & q-url-param-list = lifecycle & q-signature = da155cda3461bee7422ee95367ac8013ef847e02
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 312
Date: Wed, 16 Aug 2017 12:23:54 GMT
Server: tencent-cos
X-cos-request-id: NTk5NDM5NWFfMjQ4OGY3Xzc3NGRfMjA=

<LifecycleConfiguration>
<Rule>
<ID> id1 </ ID>
<Filter>
<Prefix>documents/</Prefix>
</Filter>
<Status>Enabled</Status>
<Transition>
<Days>100</Days>
<StorageClass>STANDARD_IA</StorageClass>
</Transition>
</Rule>
<Rule>
<ID>id2</ID>
<Filter>
<Prefix>logs/</Prefix>
</Filter>
```

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```
<Status>Enabled</Status>
<Expiration>
<Days>10</Days>
</Expiration>
</Rule>
</LifecycleConfiguration>
```

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HEAD Bucket

Last updated：2018-08-13 10:27:08

Description

The HEAD Bucket request can confirm whether the Bucket exists and whether the user has permission to access it. The HEAD permissions are the same as Read. When the Bucket exists, an HTTP status code of 200 is returned; when the Bucket has no access, an HTTP status code of 403 is returned; and when the Bucket does not exist, an HTTP status code of 404 is returned.

Remarks: At present, APIs to obtain Bucket attributes are not available.

Request

Grammar example:

```
HEAD / HTTP/1.1
Host: <BucketName-APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (see Request Signature for details)

Request Line

```
HEAD / HTTP/1.1
```

The API accepts a `HEAD` request.

Request Header

Public header

The implementation of this request operation uses the public request header. For details on the public request header, see the Common Request Header section.

Non-public header

The request operation has no special request header information.

Request body

The request body of the request is empty.

Response

Response header

Public response header

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The response uses a common response header. See the Public Response Header section for details on the public response header.

API-specific response header

There is no specific response header for this API.

Response body

The response body returns empty.

Sample Code

Request

```
HEAD / HTTP/1.1
Host: zuhaotestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
Date: Thu, 27 Oct 2015 20:32:00 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484640517;32557536517
&q-key-time=1484640517;32557536517&q-header-list=host&q-url-param-list=&q-signature=7bedc2f84a0a3d29df85fe727d0c1e388c
410376
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 0
Date: Thu, 27 Oct 2015 20:32:00 GMT
X-cos-request-id: NTg3ZGQxNDNfNDUyMDRlXzUyOWNfMjY5
```

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List Multipart Uploads

Last updated：2018-09-17 10:30:25

Description

List Multipart Uploads is used to query multipart upload operations that are still in process. Up to 1,000 such operations can be listed for each request.

Request

Syntax:

```
GET /?uploads HTTP/1.1
Host: <BucketName>-<APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Parameters

See the details below:

Name	Description	Type	Required
delimiter	Delimiter is a sign. Objects that contain the same string between the prefix , if specified, and the first occurrence of the delimiter after the prefix are grouped under a single result element: common prefix. If you don't specify the prefix parameter, the substring starts at the beginning of the path	String	No
encoding-type	Indicate the encoding method of the returned value. Valid value: url	String	No
prefix	Specify that the returned Object key must be prefixed with Prefix. Note that the returned key will still contain Prefix when querying with prefix	String	No
max-uploads	Set the maximum number of multipart returned. Valid value: from 1 to 1,000. Default: 1,000	String	No
key-marker	Used together with upload-id-marker If upload-id-marker is not specified, entries whose ObjectNames are in front of key-marker (according to alphabetical order) will be listed If upload-id-marker is specified, besides the above entries, those whose ObjectNames are equal to key-marker and UploadIDs are in front of upload-id-marker (according to alphabetical order) will also be listed.	String	No
upload-id-marker	Used together with key-marker If key-marker is not specified, upload-id-marker will be ignored If key-marker is specified, entries whose ObjectNames are in front of key-marker (according to alphabetical order) will be listed, and entries whose ObjectNames are equal to key-marker and UploadIDs are in front of upload-id-marker (according to alphabetical order) will also be listed.	String	No

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Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

No particular request header information for this request operation.

Request Body

The request body of this request is null.

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

No particular response header for this response.

Response Body

application/xml data is returned for the response body, including the complete node data, as show below:

```
<ListMultipartUploadsResult>
<Bucket></Bucket>
<Encoding-Type></Encoding-Type>
<KeyMarker></KeyMarker>
<UploadIdMarker></UploadIdMarker>
<NextKeyMarker></NextKeyMarker>
<NextUploadIdMarker></NextUploadIdMarker>
<MaxUploads></MaxUploads>
<IsTruncated></IsTruncated>
<Prefix></Prefix>
<Delimiter></Delimiter>
<Upload>
<Key></Key>
<UploadID></UploadID>
<StorageClass></StorageClass>
<Initiator>
<ID></ID>
<DisplayName></DisplayName>
</Initiator>
<Owner>
<ID></ID>
<DisplayName></DisplayName>
</Owner>
<Initiated></Initiated>
</Upload>
<CommonPrefixs>
<Prefix></Prefix>
</CommonPrefixs>
</ListMultipartUploadsResult>
```

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Detailed data content is shown as below:

Node Name (Keyword)	Parent Node	Description	Type
ListMultipartUploadsResult	Indicate information of all multipart upload operations	Container	

Content of Container node ListMultipartUploadsResult:

Node Name (Keyword)	Parent Node	Description	Type
Bucket	ListMultipartUploadsResult	The target Bucket for multipart upload	String
Encoding-Type	Indicate the encoding method of the returned value. Valid value: url	String	
KeyMarker	ListMultipartUploadsResult	Entries will be listed starting from this key value	String
UploadIdMarker	ListMultipartUploadsResult	Entries will be listed starting from this UploadId value	String
NextKeyMarker	ListMultipartUploadsResult	If the returned entry is truncated, the returned NextKeyMarker indicates the beginning of the next entry	String
NextUploadIdMarker	ListMultipartUploadsResult	If the returned entry is truncated, the returned UploadId indicates the beginning of the next entry	String
MaxUploads	ListMultipartUploadsResul	Set the maximum number of multipart returned. Valid value: from 1 to 1,000	String
IsTruncated	ListMultipartUploadsResult	Indicate whether the returned entry is truncated. Boolean: TRUE, FALSE	Boolean

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Node Name (Keyword)	Parent Node	Description	Type
Prefix	ListMultipartUploadsResult	Specify the returned Object key must be prefixed with Prefix. Note that the returned key will still contain Prefix when querying with prefix	String
delimiter	ListMultipartUploadsResult	Delimiter is a sign. Objects that contain the same string between the prefix , if specified, and the first occurrence of the delimiter after the prefix are grouped under a single result element: common prefix. If you don't specify the prefix parameter, the substring starts at the beginning of the path	String
Upload	ListMultipartUploadsResult	Information regarding each Upload	Container
CommonPrefixs	The same paths between prefix and delimiter are grouped as the same type and defined Common Prefix	Container	

Content of Container node Upload:

Node Name (Keyword)	Parent Node	Description	Type
Key	ListMultipartUploadsResult.Upload	Name of Object	String
UploadID	ListMultipartUploadsResult.Upload	Indicate the ID of current multipart upload	String

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Node Name (Keyword)	Parent Node	Description	Type
StorageClass	ListMultipartUploadsResult.Upload	Indicate the storage class of uploaded parts; enumerated values include STANDARD, STANDARD_IA, NEARLINE	String
Initiator	ListMultipartUploadsResult.Upload	Indicate the information of the initiator of current upload	Container
Owner	ListMultipartUploadsResult.Upload	Indicate the information of the owner of these parts	Container
Initiated	ListMultipartUploadsResult.Upload	Start time of the multipart upload	Date

Content of Container node Initiator:

Node Name (Keyword)	Parent Node	Description	Type
ID	ListMultipartUploadsResult.Upload.Initiator	CAM ID	String
DisplayName	ListMultipartUploadsResult.Upload.Initiator	UIN	String

Content of Container node Owner:

Node Name (Keyword)	Parent Node	Description	Type
ID	ListMultipartUploadsResult.Upload.Initiator	CAM ID	String
DisplayName	ListMultipartUploadsResult.Upload.Initiator	UIN	String

Content of Container node CommonPrefixs:

Node Name (Keyword)	Parent Node	Description	Type
Prefix	ListMultipartUploadsResult.CommonPrefixs	Display detailed CommonPrefixs	String

Practical Case

Request

```
GET /?uploads HTTP/1.1
Host: arlenhuangtestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
```

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```
Date: Wed, 18 Jan 2015 21:32:00 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484727508;32557623508
&q-key-time=1484727508;32557623508&q-header-list=host&q-url-param-list=uploads&q-signature=5bd4759a7309f7da9a0550c224
d8c61589c9dbbf
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 1203
Date: Wed, 18 Jan 2015 21:32:00 GMT
Server: tencent-cos
x-cos-request-id: NTg3ZjI0ZGRfNDQyMDRlXzNhZmRfMjRl

<ListMultipartUploadsResult>
<Bucket>arlenhuangtestsgnoversion</Bucket>
<Encoding-Type/>
<KeyMarker/>
<UploadIdMarker/>
<MaxUploads>1000</MaxUploads>
<Prefix/>
<Delimiter>/</Delimiter>
<IsTruncated>false</IsTruncated>
<Upload>
<Key>Object</Key>
<UploadID>1484726657932bcb5b17f7a98a8cad9fc36a340ff204c79bd2f51e7dddf0b6d1da6220520c</UploadID>
<Initiator>
<UIN>14847266009/14847266009<UIN/>
</Initiator>
<Owner>
<UID>1251668577</UID>
</Owner>
<StorageClass>Standard</StorageClass>
<Initiated>Wed Jan 18 16:04:17 2017</Initiated>
</Upload>
<Upload>
<Key>Object</Key>
<UploadID>1484727158f2b8034e5407d18cbf28e84f754b791ecab607d25a2e52de9fee641e5f60707c</UploadID>
<Initiator>
<UIN>14847266009/14847266009<UIN/>
</Initiator>
<Owner>
<UID>1251668577</UID>
</Owner>
<StorageClass>Standard</StorageClass>
<Initiated>Wed Jan 18 16:12:38 2017</Initiated>
</Upload>
<Upload>
<Key>ObjectName</Key>
<UploadID>1484727270323ddb949d528c629235314a9ead80f0ba5d993a3d76b460e6a9cceb9633b08e</UploadID>
<Initiator>
<UIN>14847266009/14847266009<UIN/>
</Initiator>
<Owner>
<UID>1251668577</UID>
</Owner>
<StorageClass>Standard</StorageClass>
<Initiated>Wed Jan 18 16:14:30 2017</Initiated>
```

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```
</Upload>
</ListMultipartUploadsResult>
```

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PUT Putcket

Last updated：2018-07-25 17:19:34

Description

Put Bucket request is used to create a Bucket under specified account. The API does not support anonymous requests. To create a Bucket, you should use a request authenticated by Authorization signature. By creating the Bucket, you become the bucket owner.

Request

Syntax:

```
PUT / HTTP/1.1
Host: <BucketName>-<APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
PUT / HTTP/1.1
```

This API allows PUT request.

Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

This request operation is implemented using header x-cos-acl in request Put to set the access permission of Bucket. Bucket supports three access permissions: public-read-write, public-read and private. The default permission is private if not set. Users can also be clearly granted with permission of read, write or read-write separately. See the details below:

For more information on ACL, please see Put Bucket ACL.

Name	Description	Type	Required
x-cos-acl	Define the ACL attribute of Object. Valid values: private, public-read-write, public-read. Default value: private	String	No
x-cos-grant-read	Give the authorized person read access. Format: x-cos-grant-read: id="[OwnerUin]"	String	No
x-cos-grant-write	Gives permission to the authorized person to write. Format: x-cos-grant-write: id="[OwnerUin]"	String	No

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Name	Description	Type	Required
x-cos-grant-full-control	Give the authorized person read and write permissions. Format: x-cos-grant-full-control: id="[OwnerUin]"	String	No

Request Body

The request body of this request is null.

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

No particular response header for this response.

Response Body

Null is returned for the response body.

Practical Case

Request

```
PUT / HTTP/1.1
Host: arlenhuangtestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
Date: Thu, 12 Jan 2016 19:12:22 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484708728;32557604728
&q-key-time=1484708728;32557604728&q-header-list=host&q-url-param-list=&q-signature=b394a86624cbcc705b11bc6fc505843c5
e2dd9c9
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 0
Connection: keep-alive
Date: Thu, 12 Jan 2016 19:12:22 GMT
Server: tencent-cos
x-cos-request-id: NTg3ZWRiODJfOWIxZjRlXzZmNDBfMTUz
```

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PUT Bucket acl

Last updated：2018-08-28 11:16:12

Description

The PUT Bucket acl interface is used to write the acl table of the bucket. You can do this via Header:"x-cos-acl", "x-cos-grant-read", "x-cos-grant-write", "x-cos -grant-full-control" Pass in acl information, or pass acl information in XML format via Body.

Notes:

- The Header and Body cannot be selected at the same time.
- PUT Bucket acl is an overlay operation, passing in a new acl will overwrite the original acl.
- Only Bucket creators are authorized to operate.

Note

1. It can be set either by head or by XML body. It is recommended to use only one method.
2. You can set a folder in a private Bucket to public, then the files in the folder are public; but after the folder is set to private, the public properties set in the folder will not take effect.

Request

Grammar example:

```
PUT /?acl HTTP/1.1
Host: <BucketName-APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Content-Type: application/xml
Content-MD5: MD5
X-cos-acl: [corresponding authority]
X-cos-grant-read: id="",id=""
X-cos-grant-write: id="",id=""
X-cos-grant-full-control: id="",id=""
Authorization: Auth String
```

Authorization: Auth String (see Request Signature for details)

Request line

```
PUT /?acl HTTP/1.1
```

Request header

Public header

The implementation of this request operation uses the public request header. For details on the public request header, see the Common Request Header section.

Non-public header

You can use the x-cos-acl header in the PUT request to set the Bucket access permissions. A Bucket has three access rights: public-read-

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write, public-read, and private. If not set, the default is private. It is also possible to explicitly give the user read, write or read and write permissions. The content is as follows:

Name	Description	Type	Required
x-cos-acl	Defines the acl attribute of an Object. Valid values: private, public-read-write, public-read; Default: private	String	No
x-cos-grant-read	Give the authorized person read access. Format: x-cos-grant-read: id="[OwnerUin]"	String	No
x-cos-grant-write	Gives permission to the authorized person to write. Format: x-cos-grant-write: id="[OwnerUin]"	String	No
x-cos-grant-full-control	Give the authorized person read and write permissions. Format: x-cos-grant-full-control: id="[OwnerUin]"	String	No

Request body

The implementation of the request operation can also set the Bucket access permission in the request body by using a specific request parameter, but only one of the request body parameter mode and the request header acl sub-resource mode can be selected.
Example of all nodes:

```
<AccessControlPolicy>
<Owner>
<ID>qcs::cam::uin/<OwnerUin>:uin/<SubUin></ID>
</Owner>
<AccessControlList>
<Grant>
<Grantee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="RootAccount">
<ID>qcs::cam::uin/<OwnerUin>:uin/<SubUin></ID>
</Grantee>
<Permission></Permission>
</Grant>
<Grant>
<Grantee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="RootAccount">
<ID>qcs::cam::uin/<OwnerUin>:uin/<SubUin></ID>
</Grantee>
<Permission></Permission>
</Grant>
</AccessControlList>
</AccessControlPolicy>
```

The specific data content is as follows:

Node name (keyword)	Parent node	Description	Type	Required
AccessControlPolicy	None	Save GET Bucket acl Result Container	Container	Yes

The contents of the Container node AccessControlPolicy:

Node name (keyword)	Parent node	Description	Type	Required

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Node name (keyword)	Parent node	Description	Type	Required
Owner	AccessControlPolicy	Bucket Holder Information	Container	Yes
AccessControlList	AccessControlPolicy	Authorized Information and Permission Information	Container	Yes

The contents of the Container node Owner:

Node name (keyword)	Parent node	Description	Type	Required
ID	AccessControlPolicy.Owner	Bucket Holder ID, Format: qcs::cam::uin/<OwnerUin>:uin/<SubUin> If it is the root account, <OwnerUin> and < SubUin> is the same value	String	Yes

The contents of the Container node AccessControlList:

Node Name (Keyword)	Parent Node	Description	Type	Required
Grant	AccessControlPolicy.AccessControlList	Authorization information for a single Bucket. An AccessControlList can have 100 Grants	Container	Yes

The contents of the Container node Grant:

Node Name (Keyword)	Parent Node	Description	Type	Required

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Node Name (Keyword)	Parent Node	Description	Type	Required
Grantee	AccessControlPolicy.AccessControlList.Grant	Authorized resource information. The type can be RootAccount, SubAccount; When the type is RootAccount, you can fill in QQ in uin, you can fill in QQ in id, or you can use anyone (refer to all types of users) instead of uin/<OwnerUin> and uin/<SubUin>. When the type is RootAccount, uin represents the root account account, Subaccount represents the sub-account account	Container	Yes
Permission	AccessControlPolicy.AccessControlList.Grant	Indicates the permission information granted to the authorized person. Values can be: READ, WRITE, FULL_CONTROL	String	Yes

The contents of the Container node Grantee:

Node Name (Keyword)	Parent Node	Description	Type	Required
ID	AccessControlPolicy.AccessControlList.Grant.Grantee	User ID, Format: qcs::cam::uin/<OwnerUin>:uin/<SubUin> If it is the root account, <OwnerUin> and <SubUin> is the same value	String	Yes

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Response

Response header

Public response header

The response uses a common response header. See the Public Response Header section for details on the public response header.

API-specific response header

There is no specific response header for this API.

Response body

The response body returns empty.

Error Codes

The following describes some special and common error conditions that can occur with this request:

Error Code	HTTP Status Code	Description
InvalidDigest	400 Bad Request	User's Content-MD5 is inconsistent with the COS calculation body's Content-MD5
MalformedXM	400 Bad Request	The incoming XML format is incorrect, please compare it carefully with the restful API documentation
InvalidArgument	400 Bad Request	Parameter error, please refer to the error message for details

Sample Code

Request

```
PUT /?acl HTTP/1.1
Host: arlenhuangtestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
Date: Fri, 25 Feb 2017 04:10:22 GMT
Authorization: q-sign-algorithm = sha1 & q-ak = AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO & q-sign-time = 1484724784; 32557620784 & q-key-time = 1484724784; 32557620784 & q-header-list = host & q-url-param-list = acl & q-signature = 785d9075b8154119e6a075713c1b9e56ff0bddfc
Content-Length: 229
Content-Type: application/x-www-form-urlencoded

<AccessControlPolicy>
<Owner>
<ID>qcs::cam::uin/12345:uin/12345</ID>
</Owner>
<AccessControlList>
<Grant>
<Grantee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="RootAccount">
```

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```
<ID>qcs::cam::uin/12345:uin/12345</ID>
</Grantee>
<Permission>FULL_CONTROL</Permission>
</Grant>
<Grant>
<Grantee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="RootAccount">
<ID>qcs::cam::anyone:anyone</ID>
</Grantee>
<Permission>READ</Permission>
</Grant>
</AccessControlList>
</AccessControlPolicy>
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 0
Connection: keep-alive
Date: Fri, 25 Feb 2017 04:10:22 GMT
Server: tencent-cos
x-cos-request-id: NTg3ZjFjMmJfOWIxZjRlXzZmNDhfMjIw
```

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PUT Bucket cors

Last updated：2018-07-16 20:06:06

Description

PUT Bucket cors API is used to set cross-origin resource sharing permission for your Bucket. You can do so by importing configuration files of XML format (file size limit: 64 KB). By default, the Bucket owner has the permission of this API and can grant it to others.

> **Note:**
> The rule permissions created via PUT Bucket cors override all current rules instead of adding a permission rule.

Request

Syntax:

```
PUT /?cors HTTP/1.1
Host: <Bucketname-APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Content-Length: length
Content-Type: application/xml
Content-MD5: MD5
Authorization: Auth String

<XML file>
```

> Authorization: Auth String (For more information, please see Access Control chapter)

Request Line

```
PUT /?cors HTTP/1.1
```

This API allows PUT request.

Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

The implementing of this request operation needs the request header with Content-MD5 to verify the integrity of message, as follows:

Name	Description	Type	Required
Content-MD5	128-bit content MD5 algorithm check value defined in RFC 1864, which is used to verify that the request body was not corrupted in transit.	String	Yes

Request Body

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The implemented of this request operation requires request body. The following is an example of request body with all nodes:

```
<CORSConfiguration>
<CORSRule>
<ID></ID>
<AllowedOrigin></AllowedOrigin>
...
<AllowedMethod></AllowedMethod>
...
<AllowedHeader></AllowedHeader>
...
<MaxAgeSeconds></MaxAgeSeconds>
<ExposeHeader></ExposeHeader>
...
</CORSRule>
<CORSRule>
...
</CORSRule>
...
</CORSConfiguration>
```

The detailed data are described as follows:

Node Name (Keyword)	Parent Node	Description	Type	Required
CORSConfiguration	None	Provide all configuration information of cross-origin resource sharing, containing up to 100 CORSRule entries	Container	Yes

Content of Container node CORSConfiguration:

Node Name (Keyword)	Parent Node	Description	Type	Required
CORSRule	CORSConfiguration	Provide Information of a single configuration entry	Container	Yes

Content of Container node CORSRule:

Node Name (Keyword)	Parent Node	Description	Type	Required
ID	CORSConfiguration.CORSRule	ID of the configuration rule (optional)	String	No

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Node Name (Keyword)	Parent Node	Description	Type	Required
AllowedOrigin	CORSConfiguration.CORSRule	Allowed access source. Wildcard "*" is supported. Format: protocol://domain name[:port], for example, http://www.qq.com	String	Yes
AllowedMethod	CORSConfiguration.CORSRule	Allowed HTTP operations. Enumerated values: GET, PUT, HEAD, POST, DELETE	Enum	Yes
AllowedHeader	CORSConfiguration.CORSRule	When sending an OPTIONS request, notify the server end about the custom HTTP request headers allowed to be used by subsequent requests. Wildcard "*" is supported.	String	No
MaxAgeSeconds	CORSConfiguration.CORSRule	Configure the valid period for the results obtained by OPTIONS request	Integer	No
ExposeHeader	CORSConfiguration.CORSRule	Configure the custom header information that can be received by browser from server end	String	No

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

No particular response header for this response.

Response Body

Null is returned for the response body.

Practical Case

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Request

```
PUT /?cors HTTP/1.1
Host: arlenhuangtestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
Date: Fri, 10 Mar 2017 09:45:46 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484814927;32557710927
&q-key-time=1484814927;32557710927&q-header-list=host&q-url-param-list=cors&q-signature=8b9f05dabce2578f3a79d732386e7c
bade9033e3
Content-Type: application/xml
Content-Length: 280

<CORSConfiguration>
<CORSRule>
<ID>1234</ID>
<AllowedOrigin>http://www.qq.com</AllowedOrigin>
<AllowedMethod>PUT</AllowedMethod>
<AllowedHeader>x-cos-meta-test</AllowedHeader>
<MaxAgeSeconds>500</MaxAgeSeconds>
<ExposeHeader>x-cos-meta-test1</ExposeHeader>
</CORSRule>
</CORSConfiguration>
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 0
Connection: keep-alive
Date: Fri, 10 Mar 2017 09:45:46 GMT
Server: tencent-cos
x-cos-request-id: NTg4MDdiZWRfOWExZjRlXzQ2OWVfZGY0
```

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PUT Bucket lifecycle

Last updated：2018-08-28 11:25:07

Description

COS allows users to manage the lifecycle of Objects in a Bucket. A lifecycle configuration contains one or more rule sets that will be applied to a set of object rules (where each rule defines an action for COS).
There are two types of operations:

- **Conversion** Defines when the object is converted to another storage class. For example, you can choose to convert an object to a low-frequency storage (STANDARD_IA for infrequent access) storage class 30 days after it is created. It also supports the sinking of data to archive storage (Archive, which is cheaper and currently only for Mainland China regions). For specific parameters, see the `Transition` item in the request example description.
- **Expiration:**Specifies the expiration time of the Object. COS will automatically delete expired Objects for the user.

Notes

PUT Bucket lifecycle is used to create a new lifecycle configuration for Bucket. If the Bucket has been configured with a lifetime, using this interface to create a new configuration will overwrite the original configuration.

Request

Grammar example:

```
PUT /?lifecycle HTTP/1.1
Host: <BucketName-APPID>.cos.<Region>.myqcloud.com
Content-Length: length
Date: GMT Date
Authorization: Auth String
Content-MD5: MD5

Lifecycle configuration in the request body
```

Authorization: Auth String (see Request Signature for details)

Request line

```
PUT /?lifecycle HTTP/1.1
```

The API interface accepts PUT requests.

Request header

Public header

The implementation of this request operation uses the public request header. For details on the public request header, see the Common Request Header section.

Non-public header

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Required header

The implementation of this request operation uses the following mandatory headers:

Name	Description	Type	Required
Content-MD5	**Base64** encoded 128-bit content MD5 checksum as defined in RFC 1864. This header is used to check if the contents of the file have changed.	String	Yes

Request body

The specific node content of the request body requested by the API is:

```
<LifecycleConfiguration>
<Rule>
<ID></ID>
<Filter>
<Prefix></Prefix>
</Filter>
<Status></Status>
<Transition>
<Days></Days>
<StorageClass></StorageClass>
</Transition>
<NoncurrentVersionExpiration>
<NoncurrentDays></NoncurrentDays>
</NoncurrentVersionExpiration>
</Rule>
<Rule>
<ID></ID>
<Filter>
<Prefix></Prefix>
</Filter>
<Status></Status>
<Transition>
<Days></Days>
<StorageClass></StorageClass>
</Transition>
<NoncurrentVersionTransition>
<NoncurrentDays></NoncurrentDays>
<StorageClass></StorageClass>
</NoncurrentVersionTransition>
</Rule>
<Rule>
<ID></ID>
<Filter>
<Prefix></Prefix>
</Filter>
<Status></Status>
<Expiration>
<ExpiredObjectDeleteMarker></ExpiredObjectDeleteMarker>
</Expiration>
<NoncurrentVersionExpiration>
<NoncurrentDays></NoncurrentDays>
</NoncurrentVersionExpiration>
</Rule>
</LifecycleConfiguration>
```

The specific content is described as follows:

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Node Name (Keyword)	Parent Node	Description	Type	Required
LifecycleConfiguration	None	Lifecycle Configuration	Container	Yes
Rule	LifecycleConfiguration	Rules Description	Container	Yes
Filter	LifecycleConfiguration.Rule	Filter The Object collection that describes the impact of the rule	Container	Yes
Status	LifecycleConfiguration.Rule	Indicates if the rule is enabled, enumeration value: Enabled, Disabled	Container	Yes
ID	LifecycleConfiguration.Rule	Used to uniquely identify rules up to 255 characters in length	String	No
And	LifecycleConfiguration.Rule.Filter	Use to combine Prefix with Tag	Container	No
Prefix	LifecycleConfiguration.Rule.Filter or LifecycleConfiguration.Rule.Filter.And	Specifies the prefix to which the rule applies. Objects that match the prefix are affected by this rule. Prefix can only have at most one	Container	No
Tag	LifecycleConfiguration.Rule.Filter or LifecycleConfiguration.Rule.Filter.And	Label, Tag can have zero or more	Container	No
Key	LifecycleConfiguration.Rule.Filter.Tag or LifecycleConfiguration.Rule.Filter.And.Tag	Tag Key, no more than 128 bytes. It cannot start with "cos:". It supports only letters, numbers, spaces, and symboles (+ - = . _ : /)	String	Yes

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Node Name (Keyword)	Parent Node	Description	Type	Required
Value	LifecycleConfiguration.Rule.Filter.Tag or LifecycleConfiguration.Rule.Filter.And.Tag	Tag Value, no more than 256 bytes in length, only supports letters, numbers, spaces, and +-=._:/ These symbols	String	is
Expiration	LifecycleConfiguration.Rule	Rules Expired Properties	Container	No
Transition	LifecycleConfiguration.Rule	Rules conversion properties, when objects are converted to Standard_IA or Archive	Container	No
Days	LifecycleConfiguration.Rule.Transition or Expiration	Indicates how many days the action corresponding to the rule operates after the last modified date of the object. If it is Transition, the valid value of the field is a non-negative integer; if it is Expiration, the valid value of the field Is a positive integer	Integer	No
Date	LifecycleConfiguration.Rule.Transition or Expiration	Indicates when the action corresponding to the rule is operating	String	No
ExpiredObjectDeleteMarker	LifecycleConfiguration.Rule.Expiration	Delete expired object delete tag, enum value true,false	String	No

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Node Name (Keyword)	Parent Node	Description	Type	Required
AbortIncompleteMultipartUpload	LifecycleConfiguration.Rule	Set the maximum time allowed for shard uploads to keep running	Container	No
DaysAfterInitiation	LifecycleConfiguration.Rule .AbortIncompleteMultipartUpload	Indicates how many days after the start of the shard upload must be completed	Integer	Yes
NoncurrentVersionExpiration	LifecycleConfiguration.Rule	Indicate when the non-current version object expires	Container	No
NoncurrentVersionTransition	LifecycleConfiguration.Rule	Indicates when a non-current version object is converted to STANDARD_IA or ARCHIVE	Container	No
NoncurrentDays	LifecycleConfiguration.Rule .NoncurrentVersionExpiration or NoncurrentVersionTransition	Specifies that the action corresponding to the rule is executed after the object becomes non-current version. If it is Transition, the valid value of the field is a non-negative integer; if it is Expiration, Field valid values are positive integers	Integer	No
StorageClass	LifecycleConfiguration.Rule.Transition or NoncurrentVersionTransition	Specifies the target storage type to which the Object is dumped, enumeration value: STANDARD_IA, ARCHIVE	String	Yes

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Response

Response example:

```
HTTP/1.1 200 OK
Content-Type: application/xml
Date: Sat, 05 Aug 2017 07:13:50 GMT
Content-Length: 0
Server: tencent-cos
X-cos-request-id: NTk4NTcwMDNfMjQ4OGY3MGFfNDI0Y181
```

Response header

Public response header

The response uses a common response header. See the Public Response Header section for details on the public response header.

Unique response header

There is no special response header for this response.

Response body

The response body returns empty.

Error Codes

The following describes some of the common mistakes and the special circumstances of this request may occur:

Error Code	HTTP Status Code	Description
NoSuchBucket	404 Not Found	When accessing Bucket does not exist
MalformedXML	400 Bad Request	XML format is not legal, please compare it with restful api document
InvalidRequest	400 Bad Request	The request is invalid. If "Conflict lifecycle rule" is displayed in the error description, it means that there are conflicting parts in the rule in the xml data.
InvalidArgument	400 Bad Request	The request parameter is invalid. If "Rule ID must be unique. Found same ID for more than one rule" is displayed in the error description, it means that the id fields of multiple Rule are the same.

Note: The specific cause of the error can be checked by referring to the returned message.
For more information on COS error codes, or a list of all product errors, please see the Error Codes documentation.

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actual case

request

```
PUT /?lifecycle HTTP/1.1
Host:lifecycletest-73196696.cos.ap-beijing.myqcloud.com
Date: Wed, 16 Aug 2017 11:59:33 GMT
Authorization:q-sign-algorithm=sha1&q-ak=AKIDZfbOAo7cllgPvF9cXFrJD0a1ICvR98JM&q-sign-time=1502855771;1502935771&q-key-time=1502855771;1502935771&q-header-list=content-md5;host&q-url-param-list=lifecycle&q-signature= F3aa2c708cfd8d4d36d658de56973c9cf1c24654
Content-MD5: LcNUuow8OSZMrEDnvndw1Q==
Content-Length: 348
Content-Type: application/x-www-form-urlencoded

<LifecycleConfiguration>
<Rule>
<ID> id1 </ ID>
<Filter>
<Prefix>documents/</Prefix>
</Filter>
<Status>Enabled</Status>
<Transition>
<Days>100</Days>
<StorageClass>ARCHIVE</StorageClass>
</Transition>
</Rule>
<Rule>
<ID>id2</ID>
<Filter>
<Prefix>logs/</Prefix>
</Filter>
<Status>Enabled</Status>
<Expiration>
<Days>10</Days>
</Expiration>
</Rule>
</LifecycleConfiguration>
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 0
Date: Wed, 16 Aug 2017 11:59:33 GMT
Server: tencent-cos
X-cos-request-id: NTk5NDMzYTRfMjQ4OGY3Xzc3NGRfMWY=
```

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Object APIs
Abort Multipart Upload

Last updated：2018-07-02 14:21:38

Description

Abort Multipart Upload is used to abort a multipart upload operation and delete parts that are already uploaded. When Abort Multipart Upload is called, the Upload Parts returns failure to any request that is using the Upload Parts. "404 NoSuchUpload" is returned if the UploadID does not exist.

> **Note:**
> It is recommended that you complete multipart upload in time or abort the upload operation for the reason that parts that have been uploaded but not aborted can take up storage, incurring cost.

Request

Syntax:

```
DELETE /ObjectName?uploadId=UploadId HTTP/1.1
Host: <BucketName>-<APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

> Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
DELETE /ObjectName?uploadId=UploadId HTTP/1.1
```

This API allows DELETE request.

Request Parameters

Example of request line that contains all request parameters.

```
DELETE /ObjectName?uploadId=UploadId HTTP/1.1
```

See the details below:

Parameter Name	Description	Type	Required
UploadID	Indicate the ID of current multipart upload. You can obtain an uploadid when you use the API "Initiate Multipart Upload" to initiate multipart upload. This ID exclusively identifies this multipart data, and the relative position of this multipart in the entire file	String	Yes

Request Header

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Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

No particular request header information for this request operation.

Request Body

The request body of this request is null.

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

No particular response header for this request operation.

Response Body

The response body of this request is null.

Practical Case

Request

```
DELETE /ObjectName?uploadId=1484727270323ddb949d528c629235314a9ead80f0ba5d993a3d76b460e6a9cceb9633b08e HTTP/1.1
Host: arlenhuangtestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
Date: Tue, 26 Oct 2013 21:22:00 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484728626;32557624626&q-key-time=1484728626;32557624626&q-header-list=host&q-url-param-list=uploadId&q-signature=2d3036b57cade4a257b48a3a5dc922779a562b18
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 0
Connection: keep-alive
Date: Tue, 26 Oct 2013 21:22:00 GMT
Server: tencent-cos
x-cos-request-id: NTg3ZjI5MzlfOTgxZjRlXzZhYjNfMjBh
```

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Complete Multipart Upload

Last updated：2018-07-02 11:41:05

Description

Complete Multipart Upload API request is used to complete the entire multipart upload. You must use this API to complete the multipart upload operation of the entire file when you have uploaded all parts using Upload Parts. When using this API, you need to provide the PartNumber and ETag for every part in request Body, to verify the accuracy of parts.
The merging of parts is required and takes several minutes, thus COS returns status code 200 immediately when the merging process begins. During merging, COS may returns blank information periodically to keep the connection active, until the merging process completes, upon which the COS will return the content of the merged parts in Body.
When this API is called, "400 EntityTooSmall" is returned if the uploaded part is smaller than 1 MB.
"400 InvalidPart" is returned if the numbers of uploaded parts are discontinuous.
"400 InvalidPartOrder" is returned if the part information entries in the request Body are not sorted in ascending order according to their numbers.
"404 NoSuchUpload" is returned if the UploadId does not exist when this API is called.

Note:
It is recommended that you complete multipart upload in time or abort the upload operation for the reason that parts that have been uploaded but not aborted can take up storage, incurring cost.

Request

Syntax:

```
POST /ObjectName?uploadId=UploadId HTTP/1.1
Host: <BucketName>-<APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Content-length: Size
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
POST /ObjectName?uploadId=UploadId HTTP/1.1
```

This API allows POST request.

Request parameter

Example of request line that contains all request parameters.

```
POST /ObjectName?uploadId=UploadId HTTP/1.1
```

See the details below:

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Parameter Name	Description	Type	Required
uploadId	Indicate the ID of current multipart upload. You can obtain an uploadid when you use the API "Initiate Multipart Upload" to initiate multipart upload. This ID exclusively identifies this multipart data, and the relative position of this multipart in the entire file	String	Yes

Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

No particular request header information for this request operation.

Request Body

The specific nodes of the request body for this API request are:

```
<CompleteMultipartUpload>
<Part>
<PartNumber></PartNumber>
<ETag></ETag>
</Part>
...
</CompleteMultipartUpload>
```

Detailed data content is shown as below:

Node Name (Keyword)	Parent Node	Description	Type	Required
CompleteMultipartUpload	None	Used to describe all information of the current multipart upload operation	Container	Yes

Content of Container node CompleteMultipartUpload:

Node Name (Keyword)	Parent Node	Description	Type	Required
Part	CompleteMultipartUpload	Used to describe information of every part in the current multipart upload operation	Container	Yes

Content of Container node Part:

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Node Name (Keyword)	Parent Node	Description	Type	Required
PartNumber	CompleteMultipartUpload.Part	Part number	String	Yes
ETag	CompleteMultipartUpload.Part	MD5 algorithm check value for every part file	String	Yes

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

No particular response header for this response.

Response Body

application/xml data is returned for the response body, including the complete node data, as show below:

```
<CompleteMultipartUploadResult>
<Location></Location>
<Bucket></Bucket>
<Key></Key>
<ETag></ETag>
</CompleteMultipartUploadResult>
```

Detailed data content is shown as below:

Node Name (Keyword)	Parent Node	Description	Type
CompleteMultipartUploadResult	None	Indicate all the returned information	Container

Content of Container node CompleteMultipartUploadResult:

Node Name (Keyword)	Parent Node	Description	Type
Location	CompleteMultipartUploadResult	Domain name for public network access of the created Object	URL

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Node Name (Keyword)	Parent Node	Description	Type
Bucket	CompleteMultipartUploadResult	The target Bucket for multipart upload	String
Key	CompleteMultipartUploadResult	Name of Object	String
ETag	CompleteMultipartUploadResult	MD5 algorithm check value for the merged file	String

Practical Case

Request

```
POST /ObjectName?uploadId=1484728886e63106e87d8207536ae8521c89c42a436fe23bb58854a7bb5e87b7d77d4ddc48 HTTP/1.1
Host: arlenhuangtestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
Date: Wed, 18 Jan 2017 16:17:03 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484729794;32557625794
&q-key-time=1484729794;32557625794&q-header-list=host&q-url-param-list=uploadId&q-signature=23627c8fddb3823cce4257b33
c663fd83f9f820d
Content-Length: 155
Content-Type: application/x-www-form-urlencoded
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 277
Connection: keep-alive
Date: Wed, 18 Jan 2017 16:17:03 GMT
Server: tencent-cos
x-cos-request-id: NTg3ZjJlMjVfNDYyMDRlXzM0YzRfMjc1

<CompleteMultipartUploadResult>
<Location>arlenhuangtestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com/ObjectName</Location>
<Bucket>arlenhuangtestsgnoversion</Bucket>
<Key>ObjectName</Key>
<ETag>"3a0f1fd698c235af9cf098cb74aa25bc"</ETag>
</CompleteMultipartUploadResult>
```

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DELETE Multiple Objects

Last updated：2018-05-18 10:13:46

Description

Delete Multiple Object API request is used for batch deletion of files in specific Bucket. A maximum of 1,000 Objects are allowed to be deleted in batches at a time. COS provides two modes for returned results: Verbose and Quiet. Verbose mode returns the result of deletion of each Object, while Quiet mode only returns the information of the Objects with an error.

Note:
This request must be used with Content-MD5 to verify the integrity of Body.

Request

Syntax:

```
POST /?delete HTTP/1.1
Host: <Bucketname>-<AppID>.cos.<Region>.myqcloud.com
Date: GMT Date
Content-Length: length
Content-Type: application/xml
Content-MD5: MD5
Authorization: Auth String

<Delete>
<Quiet></Quiet>
<Object>
<Key></Key>
</Object>
<Object>
<Key></Key>
</Object>
...
</Delete>
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
POST /?delete HTTP/1.1
```

This API allows POST request.

Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

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Non-common Header

Required Header

This request operation is implemented using the following required headers:

Name	Description	Type	Required
Content-Length	HTTP request content length defined in RFC 2616 (in bytes)	String	Yes
Content-MD5	128-bit content MD5 check value encoded using Base64, defined in RFC 1864. This header is used to check whether the file content has changed	String	Yes

Request Body

The specific nodes of the request body for this request are:

```
<Delete>
<Quiet></Quiet>
<Object>
<Key></Key>
</Object>
<Object>
<Key></Key>
</Object>
...
</Delete>
```

Details are described below:

Node Name (Keyword)	Parent Node	Description	Type	Required
Delete	None	Indicate the method by which the result is returned for the deletion and the target Object	Container	Yes
Quiet	Delete	Boolean. Indicate whether the Quiet mode is enabled. True means Quiet mode is enabled, and False means Verbose mode is enabled. The default is False	Boolean	No

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Node Name (Keyword)	Parent Node	Description	Type	Required
Object	Delete	Provide the information of each target Object to be deleted	Container	Yes
Key	Delete.Object	Name of target Object file	String	Yes

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

No particular response header for this request operation.

Response Body

application/xml data is returned for the response body, including the complete node data, as show below:

```
<DeleteResult>
<Deleted>
<Key></Key>
</Deleted>
<Error>
<Key></Key>
<Code></Code>
<Message></Message>
</Error>
</DeleteResult>
```

See the details below:

Node Name (Keyword)	Parent Node	Description	Type
DeleteResult	None	Indicate the method by which the result is returned for the deletion and the target Object	Container

Content of Container node DeleteResult:

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Node Name (Keyword)	Parent Node	Description	Type
Deleted	DeleteResult	Indicate the information of Object that has been deleted successfully	Boolean
Error	DeleteResult	Indicate the information of Object that failed to be deleted	Container

Content of Container node Deleted:

Node Name (Keyword)	Parent Node	Description	Type
Key	DeleteResult.Deleted	Name of Object	String

Content of Container node Error:

Node Name (Keyword)	Parent Node	Description	Type
Key	DeleteResult.Error	Name of Object that failed to be deleted	String
Code	DeleteResult.Error	Error code for failed deletion	String
Message	DeleteResult.Error	Error message for failed deletion	String

Practical Case

Request

```
POST /?delete HTTP/1.1
Host: lelu06-1252400000.cn-north.myqcloud.com
Date: Wed, 23 Oct 2016 21:32:00 GMT
Connection: keep-alive
Accept-Encoding: gzip, deflate
Accept: */*
User-Agent: python-requests/2.12.4
Authorization: q-sign-algorithm=sha1&q-ak=AKID15IsskiBQKTZbAo6WhgcBqVls9SmuG00&q-sign-time=1480932292;1981012292&q-key-time=1480932292;1981012292&q-url-param-list=delete&q-header-list=host&q-signature=c54f22fd92232a76972ba599cba25a8a733d2fef
Content-MD5: yoLiNjQuvB7lu8cEmPafrQ==
```

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```
Content-Length: 125

<Delete>
<Quiet>true</Quiet>
<Object>
<Key>aa</Key>
</Object>
<Object>
<Key>aaa</Key>
</Object>
</Delete>
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 17
Connection: keep-alive
Date: Tue, 22 Aug 2017 12:00:48 GMT
Server: tencent-cos
x-cos-request-id: NTk5YzFjZjBfZWFhZDM1MGFfMjkwZV9lZGM3ZQ==

<DeleteResult/>
```

Request

```
POST /?delete HTTP/1.1
Host: lelu06-1252440000.cn-north.myqcloud.com
Date: Tue, 22 Aug 2017 12:16:35 GMT
Connection: keep-alive
Accept-Encoding: gzip, deflate
Accept: */*
User-Agent: python-requests/2.12.4
Authorization: q-sign-algorithm=sha1&q-ak=AKID15IsskiBQKTZbAo6WhgcBqVls9SmuG00&q-sign-time=1480932292;1981012292&q
-key-time=1480932292;1981012292&q-url-param-list=delete&q-header-list=host&q-signature=c54f22fd92232a76972ba599cba25a8a
733d2fef
Content-MD5: V0XuU8V7aqMYeWyD3BC2nQ==
Content-Length: 126

<Delete>
<Quiet>false</Quiet>
<Object>
<Key>aa</Key>
</Object>
<Object>
<Key>aaa</Key>
</Object>
</Delete>
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 111
Connection: keep-alive
Date: Tue, 22 Aug 2017 12:16:35 GMT
Server: tencent-cos
```

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```
x-cos-request-id: NTk5YzIwYTNfMzFhYzM1MGFfMmNmOWZfZWVhNjQ=

<DeleteResult>
<Deleted>
<Key>aa</Key>
</Deleted>
<Deleted>
<Key>aaa</Key>
</Deleted>
</DeleteResult>
```

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DELETE Object

Last updated：2018-07-05 19:47:51

Description

Delete Object API request is used to delete one file (Object) in Bucket of COS. This action requires that the user has the WRITE permission for the Bucket.

Request

Syntax:

```
DELETE /ObjectName HTTP/1.1
Host: <BucketName>-<APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Content-Length: length
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
DELETE /ObjectName HTTP/1.1
```

This API allows DELETE request.

Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

No particular request header information for this request operation.

Request Body

The request body of this request is null.

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

No particular response header for this request operation.

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Response Body

The response body of this request is null.

Practical Case

Request

```
DELETE /123 HTTP/1.1
Host: zuhaotestnorth-1251668577.cos.ap-beijing.myqcloud.com
Date: Wed, 23 Oct 2016 21:32:00 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484213409;32557109409&q-key-time=1484213409;32557109409&q-header-list=host&q-url-param-list=&q-signature=1c24fe260ffe79b8603f932c4e916a6cbb0af44a
```

Response

```
HTTP/1.1 204 No Content
Content-Type: application/xml
Content-Length: 0
Connection: keep-alive
Date: Wed, 23 Oct 2016 21:32:00 GMT
Server: tencent-cos
x-cos-request-id: NTg3NzRjYTRfYmRjMzVfMzFhOF82MmM3Yg==
```

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GET Object

Last updated：2018-09-06 17:59:35

Description

Get Object API request is used to download one file (Object) in Bucket of COS to the local computer. This action requires that the user has the read permission for the target Object or the read permission for the target Object has been made available for everyone (public-read).

Request

Syntax:

```
GET /<ObjectName> HTTP/1.1
Host: <BucketName>-<APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
GET /<ObjectName> HTTP/1.1
```

This API allows GET request.

Request parameter

Example of request line that contains all request parameters.

```
GET /<ObjectName>&response-content-type=ContentType&response-content-language=ContentLanguage&response-expires=ContentExpires&response-cache-control=CacheControl&response-content-disposition=ContentDisposition&response-content-encoding=ContentEncoding HTTP/1.1
```

See the details below:

Parameter Name	Description	Type	Required
response-content-type	Set the Content-Type parameter in the response header.	String	No
response-content-language	Set the Content-Language parameter in the response header.	String	No
response-expires	Set the Content-Expires parameter in the response header.	String	No
response-cache-control	Set the Cache-Control parameter in the response header.	String	No
response-content-disposition	Set the Content-Disposition parameter in the response header.	String	No
response-content-encoding	Set the Content-Encoding parameter in the response header.	String	No

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Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

The following recommended request headers are recommended for implementation of this request operation:

Name	Description	Type	Required
Range	The specified range of file download defined in RFC 2616 (in bytes)	String	No
If-Unmodified-Since	Return the contents of the file if the file is modified earlier than or equal to the specified time. If not, 412 (precondition failed) is returned	String	No
If-Modified-Since	If Object is modified after the specified time, the Object meta information is returned, otherwise 304 is returned	String	No
If-Match	File is returned if Etag is identical to the specified content. If not, 412 (precondition failed) is returned	String	No
If-None-Match	File is returned if Etag is not identical to the specified content. If not, 304 (not modified) is returned	String	No

Request Body

The request body of this request is null.

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

The response header of the request operation is as follows:

Parameter Name	Description	Type
x-cos-meta-*	User-defined metadata	String
X-cos-object-type	Indicate whether the Object is appendable for upload. Enumerated values: normal or appendable	String
X-cos-storage-class	The storage class of Object. Enumerated values: STANDARD, STANDARD_IA, NEARLINE	String

Response Body

Content of Object is returned for the response body.

Practical Case

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Request

```
GET /123 HTTP/1.1
Host: zuhaotestnorth-1251668577.cos.ap-beijing.myqcloud.com
Date: Wed, 28 Oct 2014 22:32:00 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484212200;32557108200
&q-key-time=1484212200;32557108200&q-header-list=host&q-url-param-list=&q-signature=11522aa3346819b7e5e841507d5b7f156
f34e639
```

Response

```
HTTP/1.1 200 OK
Date: Wed, 28 Oct 2014 22:32:00 GMT
Content-Type: application/octet-stream
Content-Length: 16087
Connection: keep-alive
Accept-Ranges: bytes
Content-Disposition: attachment; filename="filename.jpg"
Content-Range: bytes 0-16086/16087
ETag: "9a4802d5c99dafe1c04da0a8e7e166bf"
Last-Modified: Wed, 28 Oct 2014 20:30:00 GMT
x-cos-object-type: normal
x-cos-request-id: NTg3NzQ3ZmVfYmRjMzVfMzE5N182NzczMQ==
x-cos-storage-class: STANDARD

[Object]
```

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GET Object acl

Last updated：2018-06-19 10:14:02

Description

GET Object acl API is used to obtain access permission of an Object under a Bucket. Only the Bucket owner is allowed to perform the action.

Request

Syntax:

```
GET /ObjectName?acl HTTP/1.1
Host: <BucketName>-<APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
GET /ObjectName?acl HTTP/1.1
```

This API allows GET request.

Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

Required header

This request operation is implemented using the following required headers:

Name	Description	Type	Required
Authorization	Signature string	String	Yes

Request Body

The request body of this request is null.

Response

Response Header

Common Response Header

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This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

No particular response header for this response.

Response Body

application/xml data is returned for the response body, including the complete node data, as show below:

```
<AccessControlPolicy>
<Owner>
<ID>qcs::cam::uin/<OwnerUin>:uin/<SubUin></ID>
<DisplayName>qcs::cam::uin/<OwnerUin>:uin/<SubUin></DisplayName>
</Owner>
<AccessControlList>
<Grant>
<Grantee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="RootAccount">
<ID>qcs::cam::uin/<OwnerUin>:uin/<SubUin></ID>
<DisplayName>qcs::cam::uin/<OwnerUin>:uin/<SubUin></DisplayName>
</Grantee>
<Permission></Permission>
</Grant>
<Grant>
<Grantee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="RootAccount">
<ID>qcs::cam::uin/<OwnerUin>:uin/<SubUin></ID>
<DisplayName>qcs::cam::uin/<OwnerUin>:uin/<SubUin></DisplayName>
</Grantee>
<Permission></Permission>
</Grant>
</AccessControlList>
</AccessControlPolicy>
```

Detailed data content is shown as below:

Node Name (Keyword)	Parent Node	Description	Type
AccessControlPolicy	None	Container for saving results of GET Object acl	Container

Content of Container node AccessControlPolicy:

Node Name (Keyword)	Parent Node	Description	Type
Owner	AccessControlPolicy	Information of Object owner	Container
AccessControlList	AccessControlPolicy	Information of authorized account and permissions	Container

Content of Container node Owner:

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Node Name (Keyword)	Parent Node	Description	Type
ID	AccessControlPolicy.Owner	Object owner ID. Format: qcs::cam::uin/<OwnerUin>:uin/<SubUin> in case of root account, <OwnerUin> and <SubUin> use the same value	String
DisplayName	AccessControlPolicy.Owner	Name of Object owner	String

Content of Container node AccessControlList:

Node Name (Keyword)	Parent Node	Description	Type
Grant	AccessControlPolicy.AccessControlList	A single Object authorization information entry. Each AccessControlList can contain 100 Grant entries	Container

Content of Container node Grant:

Node Name (Keyword)	Parent Node	Description	Type
Grantee	AccessControlPolicy.AccessControlList.Grant	Provide the information of the authorized user. Type can be RootAccount and Subaccount. In case of RootAccount, ID is specified as root account. In case of Subaccount, ID is specified as sub-account	Container
Permission	AccessControlPolicy.AccessControlList.Grant	Indicate the information of permissions granted to the authorized user. Enumerated value: READ, WRITE, FULL_CONTROL	String

Content of Container node Grantee:

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Node Name (Keyword)	Parent Node	Description	Type
ID	AccessControlPolicy.Owner	User ID. In case of root account, format: qcs::cam::uin/<OwnerUin>:uin/<OwnerUin> or qcs::cam::anyone:anyone (referring to all users). In case of sub-account, format: qcs::cam::uin/<OwnerUin>:uin/<SubUin>	String
DisplayName	AccessControlPolicy.Owner	Name of user	String

Practical Case

Request

```
GET /ObjectName?acl HTTP/1.1
Host: zuhaotestnorth-1251668577.cos.ap-beijing.myqcloud.com
Date: Fri, 10 Mar 2016 09:45:46 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484213027;32557109027
&q-key-time=1484213027;32557109027&q-header-list=host&q-url-param-list=acl&q-signature=dcc1eb2022b79cb2a780bf062d3a40
e120b40652
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 266
Connection: keep-alive
Date: Fri, 10 Mar 2016 09:45:46 GMT
Server: tencent-cos
x-cos-request-id: NTg3NzRiMjVfYmRjMzVfMTViMl82ZGZmNw==

<AccessControlPolicy>
<Owner>
<ID>qcs::cam::uin/12345:uin/12345</ID>
<DisplayName>qcs::cam::uin/12345:uin/12345</DisplayName>
</Owner>
<AccessControlList>
<Grant>
<Grantee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="RootAccount">
<ID>qcs::cam::uin/12345:uin/12345</ID>
<DisplayName>qcs::cam::uin/12345:uin/12345</DisplayName>
</Grantee>
<Permission>FULL_CONTROL</Permission>
</Grant>
<Grant>
<Grantee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="RootAccount">
<ID>qcs::cam::uin/54321:uin/54321</ID>
<DisplayName>qcs::cam::anyone:anyone</DisplayName>
</Grantee>
<Permission>READ</Permission>
</Grant>
</AccessControlList>
</AccessControlPolicy>
```

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HEAD Object

Last updated：2018-07-20 17:35:31

Description

The HEAD Object API request can obtain the metadata of the Object, and the HEAD permission is the same as the GET permission.

###Version

By default, the HEAD operation retrieves metadata from the current version of the object. To retrieve metadata from a different version, use the versionId subresource.

Request

Request example:

```
HEAD /<ObjectName> HTTP/1.1
Host: <Bucketname-APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (see Request Signature for details)

Request line

```
HEAD /{ObjectName} HTTP/1.1
```

The API accepts a `HEAD` request.

Request header

Common header

The implementation of this request operation uses the common request header. For details on the common request header, see the Common Request Header section.

Non-common header

Name	Type	Required	Description
If-Modified-Since	string	No	When the Object is modified after the specified time, the metadata corresponding to the Object is returned, otherwise it returns 304

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Request body

The request request body is empty.

Response

Response header

Common response header

The response uses a common response header. For a detailed description of the common response header, see the Common Response Header section.

API response header

The response header specific data for this request operation include:

Name	Type	Description
x-cos-meta- *	string	User-defined meta
x-cos-object-type	string	It indicates whether an Object can be additionally uploaded. Values can be: normal or appendable
x-cos-storage-class	string	Object storage level, Values can be: STANDARD, STANDARD_IA
x-cos-version-id	string	The version ID of the returned object.
x-cos-server-side - encryption	string	If the object is stored by COS-managed server-side encryption, the response will contain the value of this header and the encryption algorithm used, AES256

Response Body

The request response body is empty.

Sample Code

Request

```
HEAD /123 HTTP/1.1
Host: zuhaotestnorth-1251668577.cos.ap-beijing.myqcloud.com
Date: Thu, 12 Jan 2017 17:26:53 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484213210;32557109210
&q-key-time=1484213210;32557109210&q-header-list=host&q-url-param-list=&q-signature=ac61b8eb61964e7e6b935e89de163a47
9a25c210
```

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Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 16087
Connection: keep-alive
Date: Thu, 12 Jan 2017 17:26:53 GMT
ETag: \"9a4802d5c99dafe1c04da0a8e7e166bf\"
Last-Modified: Wed, 11 Jan 2017 07:30:07 GMT
Server: tencent-cos
X-cos-object-type: normal
X-cos-request-id: NTg3NzRiZGRfYmRjMzVfM2Y2OF81N2YzNA==
X-cos-storage-class: STANDARD
```

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Initiate Multipart Upload

Last updated：2018-07-25 17:17:54

Description

Initiate Multipart Upload request is used for the initialization of multipart upload. After the execution of this request, UploadId will be returned for the subsequent Upload Part requests.

Request

Syntax:

```
POST /Object?uploads HTTP/1.1
Host: <BucketName>-<APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
POST /Object?uploads HTTP/1.1
```

This API allows POST request.

Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

Recommended Header

This request operation is implemented using the following recommended request headers:

Name	Description	Type	Required
Cache-Control	The caching policy defined in RFC 2616, which will be saved as Object metadata.	String	No
Content-Disposition	The file name defined in RFC 2616, which will be saved as Object metadata.	String	No
Content-Encoding	The encoding format defined in RFC 2616, which will be saved as Object metadata.	String	No
Content-Type	The content type defined in RFC 2616, which will be saved as Object metadata.	String	No
Expires	The file name defined in RFC 2616, which will be saved as Object metadata.	String	No

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Name	Description	Type	Required
x-cos-meta-*	The header information allowed to be defined by users, which will be returned as Object metadata. The size is limited to 2K.	String	No
X-cos-storage-class	Set the storage class of Object. Enumerated values: Standard, Standard_IA, Nearline. The default is Standard (this is only supported for South China region)	String	No

Permission-related headers

This request operation is implemented using header x-cos-acl in request PUT to set the access permission of Object. Object supports three access permissions: public-read-write, public-read and private. The default permission is private if not set. Users can also be clearly granted with permission of read, write or read-write separately. See the details below:

> For more information on ACL, please see Put Bucket ACL.

Name	Description	Type	Required
x-cos-acl	Define the ACL attribute of Object. Valid values: private, public-read-write, public-read. Default value: private	String	No
x-cos-grant-read	Give the authorized person read access. Format: x-cos-grant-read: id="[OwnerUin]"	String	No
x-cos-grant-write	Gives permission to the authorized person to write. Format: x-cos-grant-write: id="[OwnerUin]"	String	No
x-cos-grant-full-control	Give the authorized person read and write permissions. Format: x-cos-grant-full-control: id="[OwnerUin]"	String	No

Request Body

The request body of this request is null.

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

No particular response header for this response.

Response Body

application/xml data is returned for the response body, including the complete node data, as show below:

```
<InitiateMultipartUploadResult>
<Bucket> </Bucket>
<Key> </Key>
<UploadId> </UploadId>
</InitiateMultipartUploadResult>
```

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Detailed data content is shown as below:

Node Name (Keyword)	Parent Node	Description	Type
InitiateMultipartUploadResult	None	Indicate all the returned information	Container

Content of Container node InitiateMultipartUploadResult:

Node Name (Keyword)	Parent Node	Description	Type
Bucket	InitiateMultipartUploadResult	The target Bucket of multipart upload	Container
Key	InitiateMultipartUploadResult	Name of Object	Container
UploadId	InitiateMultipartUploadResult	ID used in subsequent uploads	Container

Practical Case

Request

```
POST /ObjectName?uploads HTTP/1.1
Host: arlenhuangtestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
Date: Fri, 10 Mar 2016 09:45:46 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484727259;32557623259
&q-key-time=1484727259;32557623259&q-header-list=host&q-url-param-list=uploads&q-signature=b5f46c47379aeaee74be757838
0b193c01b28045
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 230
Connection: keep-alive
Date: Fri, 10 Mar 2016 09:45:46 GMT
Server: tencent-cos
x-cos-request-id: NTg3ZjIzZTZfOWIxZjRlXzZmMzhfMWRj

<InitiateMultipartUploadResult>
<Bucket>arlenhuangtestsgnoversion</Bucket>
<Key>ObjectName</Key>
<UploadId>1484727270323ddb949d528c629235314a9ead80f0ba5d993a3d76b460e6a9cceb9633b08e</UploadId>
</InitiateMultipartUploadResult>
```

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List Parts

Last updated：2018-09-07 09:55:19

Description

List Parts is used to query the uploaded parts when uploading particular parts, which lists all the uploaded parts under a specified UploadId.

Request

Syntax:

```
GET /ObjectName?uploadId=UploadId HTTP/1.1
Host: <BucketName>-<APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
GET /ObjectName?uploadId=UploadId HTTP/1.1
```

This API allows GET request.

Request Parameters

See the details below:

Parameter Name	Description	Type	Required
uploadId	Indicate the ID of current multipart upload. You can obtain an uploadid when you use the API "Initiate Multipart Upload" to initiate multipart upload. This ID exclusively identifies this multipart data, and the relative position of this multipart in the entire file.	String	Yes
encoding-type	Indicate the encoding method of the returned value	String	No
max-parts	Maximum number of entries returned each time. Default is 1,000	String	No
part-number-marker	Entries are listed in UTF-8 binary order by default, starting from marker	String	No

Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

No particular request header information for this request operation.

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Request Body

The request body of this request is null.

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

No particular response header for this response.

Response Body

application/xml data is returned for the response body, including the complete node data, as show below:

```
<ListPartsResult>
<Bucket></Bucket>
<Encoding-type></Encoding-type>
<Key></Key>
<UploadId></UploadId>
<Owner>
<ID></ID>
<DisplayName></DisplayName>
</Owner>
<PartNumberMarker></PartNumberMarker>
<Initiator>
<ID></ID>
<DisplayName></DisplayName>
</Initiator>
<StorageClass></StorageClass>

<NextPartNumberMarker></NextPartNumberMarker>
<MaxParts></MaxParts>
<IsTruncated></IsTruncated>
<Part>
<PartNumber></PartNumber>
<LastModified></LastModified>
<ETag></ETag>
<Size></Size>
</Part>
</ListPartsResult>
```

Detailed data content is shown as below:

Node Name (Keyword)	Parent Node	Description	Type	
ListPartsResult	None	Indicate information of the current multipart upload operation	Container	Yes

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Content of Container node ListPartsResult:

Node Name (Keyword)	Parent Node	Description	Type
Bucket	ListPartsResult	The target Bucket for multipart upload	String
Encoding-type	ListPartsResult	Indicate the encoding method of the returned value	String
Key	ListPartsResult	Name of Object	String
UploadId	ListPartsResult	Indicate the ID of current multipart upload	String
Initiator	ListPartsResult	Indicate the information of the initiator of current upload	Container
Owner	ListPartsResult	Indicate the information of the owner of these parts	Container
StorageClass	ListPartsResult	Indicate the storage class of uploaded parts; enumerated values include Standard, Standard_IA, nearline	String
PartNumberMarker	ListPartsResult	Entries are listed using UTF-8 binary order by default, starting from marker	String

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Node Name (Keyword)	Parent Node	Description	Type
NextPartNumberMarker	ListPartsResult	If the returned entry is truncated, the returned NextMarker indicates the beginning of the next entry	String
MaxParts	ListPartsResult	Maximum number of entries returned at a time	String
IsTruncated	ListPartsResult	Indicate whether the returned entry is truncated. Boolean: TRUE, FALSE	Boolean
Part	ListPartsResult	Indicate the information of each part	Container

Content of Container node Initiator:

Node Name (Keyword)	Parent Node	Description	Type
ID	ListPartsResult.Initiator	Unique ID of the creator	String
DisplayName	ListPartsResult.Initiator	Name of creator	String

Content of Container node Owner:

Node Name (Keyword)	Parent Node	Description	Type
ID	ListPartsResult.Owner	Unique ID of the user	String
DisplayName	ListPartsResult.Owner	Name of User	String

Content of Container node Part:

Node Name (Keyword)	Parent Node	Description	Type
PartNumber	ListPartsResult.Part	Part number	String

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Node Name (Keyword)	Parent Node	Description	Type
LastModified	ListPartsResult.Part	The last modification time of part	Date
ETag	ListPartsResult.Part	MD-5 algorithm check value of Object	String
Size	ListPartsResult.Part	Party size (in bytes)	String

Practical Case

Request

```
GET /coss3/test10M_2?uploadId=14846420620b1f381e5d7b057692e131dd8d72dfa28f2633cfbbe4d0a9e8bd0719933545b0&max-parts=1 HTTP/1.1
Host:burning-1251668577.cos.ap-beijing.myqcloud.com
Date: Wed, 18 Jan 2017 16:17:03 GMT
Authorization:q-sign-algorithm=sha1&q-ak=AKIDDNMEycgLRPI2axw9xa2Hhx87wZ3MqQCn&q-sign-time=1484643123;1484646723&q-key-time=1484643123;1484646723&q-header-list=host&q-url-param-list=max-parts;uploadid&q-signature=b8b4055724e64c9ad848190a2f7625fd3f9d3e87
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 661
Connection: keep-alive
Date: Wed, 18 Jan 2017 16:17:03 GMT
x-cos-request-id: NTg3ZGRiMzhfMmM4OGY3XzdhY2NfYw==

<ListPartsResult>
<Bucket>burning</Bucket>
<Encoding-type/>
<Key>test10M_2</Key>
<UploadId>14846420620b1f381e5d7b057692e131dd8d72dfa28f2633cfbbe4d0a9e8bd0719933545b0</UploadId>
<Initiator>
<ID>123456789</ID>
<DisplyName>123456789</DisplyName>
</Initiator>
<Owner>
<ID>qcs::cam::uin/156545789:uin/156545789</ID>
<DisplyName>156545789</DisplyName>
</Owner>
<PartNumberMarker>0</PartNumberMarker>
<Part>
<PartNumber>1</PartNumber>
<LastModified>Tue Jan 17 16:43:37 2017</LastModified>
<ETag>"a1f8e5e4d63ac6970a0062a6277e191fe09a1382"</ETag>
<Size>5242880</Size>
</Part>
<NextPartNumberMarker>1</NextPartNumberMarker>
```

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```
<StorageClass>Standard</StorageClass>
<MaxParts>1</MaxParts>
<IsTruncated>true</IsTruncated>
</ListPartsResult>
```

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OPTIONS Object

Last updated：2018-08-13 10:29:55

Description

The OPTIONS Object API is used to pre-request an Object cross-origin access configuration. That is, before the cross-origin request is sent, an OPTIONS request is sent to COS. The request contains specific source domain, HTTP method, and header information. nt to determine whether a true cross-origin request can be sent. When the CORS configuration does not exist, the request returns 403 Forbidden. The Bucket's CORS support can be enabled via the PUT Bucket cors interface.

Request

Request example:

```
OPTIONS /<ObjectName> HTTP/1.1
Host: <BucketName-APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (see Request Signature for details)

Request line

```
OPTIONS /{ObjectName} HTTP/1.1
```

The API interface accepts `OPTIONS` requests.

Request header

Common header

The implementation of this request operation uses the common request header. For details on the common request header, see the Common Request Header.

Non-common header

Name	Type	Required	Description
Origin	string	Yes	request source domain name for cross-origin access

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Name	Type	Required	Description
Access-Control-Request-Method	string	Yes	request to simulate cross-origin access HTTP method
Access-Control-Request-Headers	string	No	Simulate the request header for cross-origin access

Request body

The request request body is empty.

Response

Response header

Public response header

The response uses a common response header. For a detailed description of the public response header, see the Common Response Header section.

API-specific response header

The response header specific data for this request operation is:

Name	Type	Description
Access-Control-Allow-Origin	string	simulates the request source domain name for cross-origin access, this header does not return when the source does not allow
Access-Control-Allow-Methods	string	Simulates requests for cross-origin access HTTP methods, this header does not return when the request method does not allow
Access-Control-Allow-Headers	string	simulates the request header for cross-origin access. When simulating any request header is not allowed, this header does not return the request header

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Name	Type	Description
Access-Control-Expose-Headers	string	Simulates requests for cross-origin access HTTP methods, this header does not return when the request method does not allow
Access-Control-Max-Age	string	Set the validity period of the OPTIONS request to get results

Response body

The request response body is empty.

Sample Code

Request

```
OPTIONS /coss3/ObjectName HTTP/1.1
Host: arlenhuangtestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
Date: Thu, 12 Jan 2017 17:26:53 GMT
Origin: http://www.qq.com
Access-Control-Request-Method: PUT
Authorization: q-sign-algorithm = sha1 & q-ak = AKIDDNMEycgLRPI2axw9xa2Hhx87wZ3MqQCn & q-sign-time = 1487070734; 32466654734 & q-key-time = 1487070734; 32559966734 & q-header-list = host & q-url-param-list = & q-signature = 2ac3ada19910f44836ae0df72a0ec1003f34324b
```

Response

```
OPTIONS /<ObjectName> HTTP/1.1
Host: <Bucketname>-<APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Origin: Origin
Access-Control-Request-Method: HTTPMethod
Access-Control-Request-Headers: RequestHeader
Authorization: Auth String
```

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POST Object

Last updated：2018-08-13 10:30:36

Description

The POST Object API allows the user to upload a file (Object) to the specified Bucket in the form of a form. This operation requires the requester to have WRITE permission on the Bucket. All API parameters carried by the HTTP header are requested using form fields.

###Version

If version control is enabled for the bucket, the POST operation will automatically generate a unique version ID for the object to be added. COS uses the x-cos-version-id response header to return this ID in the response.
If you do not enable or paused version control in the target bucket, the version ID generated by COS is always null.

Notes

1. WRITE permission to the Bucket is required;
2. If an Object with the same name already exists, the newly uploaded file will overwrite the original file and return “200 OK” if successful.

Request

Request example:

```
POST / HTTP/1.1
Headers
Form
```

Signature (see Request Signature for details)

Request Headers

Required header

The request operation requires the following mandatory request headers:

Name	Description	Type	Required
Content-Length	HTTP request content length (bytes) defined in RFC 2616	String	Yes

Form Fields

Name	Description	Type	Required
acl	File permissions. Inherit from the parent if it's left empty. See PUT Object acl	String	No
Cache-Control, Content-Type, Content-Disposition, Content-Encoding, Expires	Header defined in RFC 2616, see PUT Object	String	No
file	File content. It is used as the last field of the form	String	yes

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Name	Description	Type	Required
key	The file name after uploading, using **${filename}** will be replaced. For example, a/b/${filename}, upload file a1.txt, then the final upload path is a/b/a1.txt	String	yes
success_action_redirect	If the setting takes effect first, return 303 and provide the Location header, at the end of the URL, add `bucket={bucket}&key={key}&etag={"etag"}`	String	No
success_action_status	Values: 200, 201, 204. Returns 204 by default. If you fill in success_action_redirect, this setting is ignored.	String	No
x-cos-meta- *	Customized information, which will be returned as Object metadata. Size limit: 2K	String	No
x-cos-storage-class	Sets the storage level of the Object. Values: STANDARD (default), STANDARD_IA	String	No
policy	Base64 encoding. Used for request checking, if the content of the request does not match the conditions specified by Policy, return 403 AccessDenied	String	No
x-cos-server-side-encryption	Specifies how the server is enabled for server-side encryption. Use COS master key encryption to fill in: AES256	String	For encryption, yes

Policy

Basic format

```
{ "expiration": "2007-12-01T12:00:00.000Z",
"conditions": [
{"acl": "public-read" },
{"bucket": "johnsmith" },
["starts-with", "$key", "user/eric/"],
]
}
```

Expiration

Set the timeout for this POST Policy, using ISO8601 GMT time, for example 2017-12-01T12:00:00.000Z.

Conditions Rules

Type	Description
Exact match	Use `{"key": "value"}` or `["eq", "$key", "value"]`
Prefix matching	Use `["starts-with", "$key", "value"]` to express, value can be left blank
Range matching	Use `["content-length-range", int1, int2]` , then the number of file bytes must be in the range of int1 and int2

Conditions Parameters

All parameters are optional. If they are not filled, they cannot be verified.

Name	Description	Matching method
acl	(Optional) File ACL attribute permission range	full, prefix
bucket	Specify the upload Bucket	Full

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Name	Description	Matching method
content-length-range	Specify the upload size range of the file	Scope
Five Standard Header	Cache-Control Content-Type Content-Disposition Content-Encoding Expires	Full, Prefix
key	object storage path	full, prefix
success_action_redirect	URL returned after successful upload	full, prefix
success_action_status	Status returned after successful upload	Complete
x-cos-credential	Format ////aws4_request	Complete
x-cos-date	UTC Time for ISO8601	Complete
x-cos-meta-*	User-Defined Header	Full, Prefix
x-cos-*	Other AWS headers that need to be signed	Complete

Response

Response Header

Common Response Header

The response uses common response headers. See Common Response Header.

API response headers

The response header specific data for this request operation is:

Name	Description	Type
ETag	Returns the MD5 algorithm checksum of the file. The value of ETag can be used to check if the Object is corrupted during the upload process	String
Location	If `success_action_redirect` is specified, the corresponding value is returned. If not specified, the complete path of the object is returned	String
x-cos-version-id	The version of the replicated object in the target bucket.	String
x-cos-server-side -encryption	If the object is stored by COS-managed server-side encryption, the response will contain the value of this header and the encryption algorithm used, AES256	string

Response body

Node name (keyword)	Parent node	Description	Type	Required
PostResponse	None	Container for POST Object Results	Container	Yes

The contents of the Container node PostResponse:

Node name (keyword)	Parent node	Description	Type	Required

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Node name (keyword)	Parent node	Description	Type	Required
Location	PostResponse	The full path to the object.	String	Yes
Bucket	PostResponse	The bucket in which the object is located.	String	Yes
Key	PostResponse	Object key name	String	Yes
ETag	PostResponse	Etag content.	String	Yes

Error Codes

The following describes some error conditions that can occur with this request:

Error Code	HTTP Status Code	Description
InvalidDigest	400 Bad Request	If the user uploads a file with a Content-MD5 header, the COS will check whether the MD5 of the body is the same as the MD5 carried by the user. If it is inconsistent, it will return InvalidDigest
KeyTooLong	400 Bad Request	The custom header that starts with x-cos-meta when uploading files, the key and value of each custom header cannot add up to 4k, otherwise return KeyTooLong error
MissingContentLength	411 Length Required	If the Content-Length header is not added when uploading the file, the error code will be returned
NoSuchBucket	404 Not Found	If the Bucket where the Object you are trying to add does not exist, return a 404 Not Found error, error code: NoSuchBucket

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Error Code	HTTP Status Code	Description
EntityTooLarge	400 Bad Request	If the added file is larger than 5G, it will return EntityTooLarge and return the error message `Your proposed upload exceeds the maximum allowed object size`
InvalidURI	400 Bad Request	Object key length is limited to 850, if it exceeds 850, it will return InvalidURI

For more information on COS error codes, or a list of all product errors, please see the Error Codes documentation.

Sample Code

Request

```
POST / HTTP/1.1
Connection: keep-alive
Accept-Encoding: gzip, deflate
Accept: */*
User-Agent: python-requests/2.12.4
Host: xxxx-123456.cos.ap-guangzhou.myqcloud.com
Content-Length: 1352
Content-Type: multipart/form-data; boundary=e07f2a7876ae4755ae18d300807ad879

--e07f2a7876ae4755ae18d300807ad879
Content-Disposition: form-data; name="key"

a/${filename}
--e07f2a7876ae4755ae18d300807ad879
Content-Disposition: form-data; name="success_action_status"

201
--e07f2a7876ae4755ae18d300807ad879
Content-Disposition: form-data; name="Acl"

public-read
--e07f2a7876ae4755ae18d300807ad879
Content-Disposition: form-data; name="x-cos-storage-class"

STANDARD
--e07f2a7876ae4755ae18d300807ad879
Content-Disposition: form-data; name="Signature"

q-sign-algorithm=sha1&q-ak=AKIDZfbOAo7cIlgPvF9cXFrJD0a1ICvR98JM&q-sign-time=1512983814;1512984814&q-key-time=1512983814;1512984814&q-url-param-list=&q-header-list=host&q-signature=2ffd2ae714e7445a8da000ec5d51771ff5056500
--e07f2a7876ae4755ae18d300807ad879
Content-Disposition: form-data; name="policy"

eyJjb25kaXRpb25zIjogW3siYnVja2V0IjogImtpdG1hbnMzdGVzdDEifSwgWyJjb250ZW50LWxlbmd0aC1yYW5nZSIsIDAsIDEwMDAwMDAwXSwgWyJzdGFydHMtd2l0aCIsICJ4LWNvcy1tZXRhLWJiIiwgIjEyll1dLCAiZXhwaXJhdGlvbiI6ICIyMDQ3LTEyLTAxVDEyOjAwOjAwLjAwMF
```

```
oifQ==
--e07f2a7876ae4755ae18d300807ad879
Content-Disposition: form-data; name="x-Cos-meta-bb"

124
--e07f2a7876ae4755ae18d300807ad879
Content-Disposition: form-data; name="key1"

1
--e07f2a7876ae4755ae18d300807ad879
Content-Disposition: form-data; name="file"; filename="empty:a"


--e07f2a7876ae4755ae18d300807ad879--
```

Response

```
HTTP/1.1 201
Content-Type: application/xml
Content-Length: 232
Connection: keep-alive
Date: Mon, 11 Dec 2017 09:16:56 GMT
ETag: "d41d8cd98f00b204e9800998ecf8427e"
Location: http://xxxx-123456.cos.ap-guangzhou.myqcloud.com/a/empty:a
Server: tencent-cos
x-cos-request-id: NWEyZTRkMDZfMjQ4OGY3MGFfNTE4Yl81

<PostResponse>
<Location>http://xxxx-123456.cos.ap-guangzhou.myqcloud.com/a/empty:a</Location>
<Bucket>xxxx-123456</Bucket>
<Key>a/empty:a</Key>
<ETag>d41d8cd98f00b204e9800998ecf8427e</ETag>
</PostResponse>
```

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POST Object restore

Last updated：2018-08-13 10:31:08

Description

The POST Object restore API can recover an object of type `archived` by COS archive. The recovered readable object is temporary. You can set the time to keep it readable and then delete the temporary copy. You can use the Days parameter to specify the expiration time of the temporary object. If this time is exceeded and you do not initiate any copying, extension, etc., the temporary object will be automatically deleted by the system. The temporary object is only a copy of the archive type object, and the archived source object will always exist during this period.

Request

Request example:

```
POST /ObjectName?restore HTTP/1.1
Host: <Bucketname-APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String

Request body
```

Authorization: Auth String (see Request Signature for details)

Request line

```
POST /{ObjectName}?restore HTTP/1.1
```

The API accepts `POST` requests.

Request header

Common header

The implementation of this request operation uses the common request header. For details on the common request header, see the Common Request Header section.

Non-common header

The request operation has no special request header information.

Request body

The implementation of the request operation requires a request body.

```
<?xml version="1.0" encoding="UTF-8" ?>
<Days>0</Days>
<CASJobParameters>
<Tier>string</Tier>
</CASJobParameters>
```

The specific data is described as follows:

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Node Name (Keyword)	Parent Node	Description	Type	Required
Days	None	Set the expiration time of the temporary copy	integer	

Response

Response header

Common response header

The response uses a common response header. For a detailed description of the common response header, see the Common Response Header

API-specific response header

The request operation has no special response header information.

Responsive body

The request response body is empty.

Error Codes

Error Code	Description	HTTP Status Code
None	Restoration success	202 Accepted
RestoreAlreadyInProgress	Object is already in recovery	409 Conflict

Sample Code

Request

```
POST /arvin/arvin6.txt?restore HTTP/1.1
Accept: */*
Authorization:q-sign-algorithm=sha1&q-ak=AKIDZfbOAo7cllgPvF9cXFrJD0a1ICvR98JM&q-sign-time=1497530202;1497610202&q-key-time=1497530202;1497610202&q-header-list=&q-url-param-list=&q-signature=28e9a4986df11bed0255e97ff4500557e0ea057
Host:arvin1-7319456.cn-north.myqcloud.com
Content-Length: 105
Content-Type: application/x-www-form-urlencoded
```

Response

```
HTTP/1.1 202 Accepted
Content-Type: application/xml
Content-Length: 0
Connection: keep-alive
Date: Thu, 15 Jun 2017 12:37:29 GMT
Server: tencent-cos
X-cos-request-id: NTk0MjdmODIfMjQ4OGY3XzYzYzhfMjc=
```

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PUT Object

Last updated：2018-10-12 09:34:59

Description

Put Object request allows you to upload a local file (Object) to the specified Bucket. This action requires that the user has the WRITE permission for the Bucket.

Request

Syntax:

```
PUT /<ObjectName> HTTP/1.1
Host: <BucketName>-<APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
PUT /<ObjectName> HTTP/1.1
```

This API allows PUT request.

Request Header

Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

Required Header

The following required headers are needed for the implementation of request operation:

Name	Description	Type	Required
Content-Length	HTTP request content length defined in RFC 2616 (in bytes)	String	Yes

Recommended Header

The following recommended request headers are recommended for implementation of this request operation:

Name	Description	Type	Required
Cache-Control	The caching policy defined in RFC 2616, which will be saved as Object metadata.	String	No
Content-Disposition	The file name defined in RFC 2616, which will be saved as Object metadata.	String	No

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Name	Description	Type	Required
Content-Encoding	The encoding format defined in RFC 2616, which will be saved as Object metadata.	String	No
Content-Type	The content type defined in RFC 2616, which will be saved as Object metadata.	String	No
Expect	If Expect: 100-continue is used, the request content will not be sent until the receipt of response from server.	String	No
Expires	The expiration time defined in RFC 2616, which will be saved as Object metadata.	String	No
x-cos-meta-*	The header information allowed to be defined by users, which will be returned as Object metadata. The size is limited to 2 KB.	String	No
X-cos-storage-class	Set the storage class of Object. Enumerated values: STANDARD, STANDARD_IA. The default is STANDARD (this is only supported for South China region)	String	No

Permission-related headers

This request operation is implemented using header x-cos-acl in request Put to set the access permission of Object. Three access permissions are available: public-read-write, public-read and private. The default permission is private if not set. Users can also be clearly granted with permission of read, write or read-write separately. See the details below:

> For more information on ACL, please see Put Bucket ACL.

Name	Description	Type	Required
x-cos-acl	Define the ACL attribute of Object. Valid values: private, public-read-write, public-read. Default value: private	String	No
x-cos-grant-read	Give the authorized person read access. Format: x-cos-grant-read: id="[OwnerUin]"	String	No
x-cos-grant-write	Gives permission to the authorized person to write. Format: x-cos-grant-write: id="[OwnerUin]"	String	No
x-cos-grant-full-control	Give the authorized person read and write permissions. Format: x-cos-grant-full-control: id="[OwnerUin]"	String	No

Request Body

The request body of this request is file Object.

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

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The response header of the request operation is as follows:

Name	Description	Type
ETag	Return the MD5 algorithm check value for the file. ETag value can be used to check whether the Object is corrupted in the upload process.	String

Response Body

Null is returned for the response body.

Practical Case

Request

```
PUT /filename.jpg HTTP/1.1
Host: zuhaotestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
Date: Wed, 28 Oct 2015 20:32:00 GMT
Authorization:q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484639384;32557535384&q-key-time=1484639384;32557535384&q-header-list=host&q-url-param-list=&q-signature=5c07b7c67d56497d9aacb1adc19963135b7d00dc
Content-Length: 64

[Object]
```

Response

```
HTTP /1.1 200 OK
Content-Type: application/xml
Content-Length: 0
Date: Wed, 28 Oct 2015 20:32:00 GMT
Etag: 020df6d63448ae38a1de7924a68ba1e2
x-cos-request-id: NTg3ZGNjYTlfNDUyMDRlXzUyOTlfMjRj
```

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PUT Object acl

Last updated：2018-09-06 17:59:42

Description

The PUT Object acl API is used to configure the ACL table for an Object in a bucket. You can do this via Header: "x-cos-acl", "x-cos-grant-read", "x-cos-grant-write", "x-cos-grant-full-control" to pass in ACL information, or pass ACL information in XML format via Body.

Request

Request example:

```
PUT /{ObjectName}/?acl HTTP/1.1
Host: <Bucketname-APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String

<AccessControlPolicy>
```

Authorization: Auth String (see Request Signature for details)

Request Headers

Common Headers

The implementation of this request operation uses the common request header. For details on the common request headers, see the Common Request Header.

Non-common Headers

Name	Description	Type	Required
X-cos-acl	Defines the ACL property of the Object. Valid values: private, public-read-write, public-read.	string	No
x-cos-grant-read	Give the authorized person read access. Format: x-cos-grant-read: id="[OwnerUin]"	String	No
x-cos-grant-write	Gives permission to the authorized person to write. Format: x-cos-grant-write: id="[OwnerUin]"	String	No
x-cos-grant-full-control	Give the authorized person read and write permissions. Format: x-cos-grant-full-control: id="[OwnerUin]"	String	No

Request Body

The requested request body is an ACL configuration rule.

```
<?xml version="1.0" encoding="UTF-8" ?>
<AccessControlPolicy>
```

The specific data is described as follows:

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Node Name (Keyword)	Parent Node	Description	Type	Required
AccessControlPolicy	None	Save GET Bucket acl result container	Container	

Response

Response Headers

Common Response Headers

The response uses common response headers. For a detailed description of the common response headers, see the Common Response Header.

API-Specific Response Header

The request operation has no special response header information.

Responsive body

The request response body is empty.

Error Codes

Error Code	Description	HTTP Status Code
SignatureDoesNotMatch	The signature provided does not match the rule	403 Forbidden
NoSuchBucket	The Bucket where the rule you are trying to add does not exist	404 Not Found
MalformedXML	XML format invalid	400 Bad Request
The InvalidRequest	Request is invalid. If "header acl and body acl conflict" is displayed in the error message, then the header and body cannot have acl parameters.	400 Bad Request

Sample Code

Request

```
PUT /test?acl HTTP/1.1
Host: arlenhuangtestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
Date: Fri, 25 Feb 2017 04:10:22 GMT
Authorization: q-sign-algorithm = sha1 & q-ak = AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO & q-sign-time = 1484724784; 32557620784 & q-key-time = 1484724784; 32557620784 & q-header-list = host & q-url-param-list = acl & q-signature = 785d9075b8154119e6a075713c1b9e56ff0bddfc
Content-Length: 229
Content-Type: application/x-www-form-urlencoded

<AccessControlPolicy>
<Owner>
<ID>qcs::cam::uin/12345:uin/12345</ID>
</Owner>
<AccessControlList>
<Grant>
<Grantee xmlns:xsi=\"http://www.w3.org/2001/XMLSchema-instance\" xsi:type=\"CanonicalUser\">
```

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```
<ID>qcs::cam::uin/12345:uin/12345</ID>
</Grantee>
<Permission>FULL_CONTROL</Permission>
</Grant>
<Grant>
<Grantee xmlns:xsi=\"http://www.w3.org/2001/XMLSchema-instance\" xsi:type=\"Group\">
<URI>http://cam.qcloud.com/groups/global/AllUsers</URI>
</Grantee>
<Permission>READ</Permission>
</Grant>
</AccessControlList>
</AccessControlPolicy>
```

Response:

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 0
Connection: keep-alive
Date: Fri, 25 Feb 2017 04:10:22 GMT\
Server: tencent-cos
x-cos-request-id: NTg3ZjFjMmJfOWIxZjRlXzZmNDhfMjIw
```

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PUT Object - Copy

Last updated：2018-09-26 18:27:38

Description

The PUT Object - Copy request copies a file from the source path to the target path. It is recommended that the file size is 1M to 5G. For files larger than 5G, please use the multipart upload Upload - Copy. The file metadata and ACL can be modified during the copy process. Users can use this API to move files, rename files, modify file attributes, and create copies.

Version

By default, version control is enabled on the target bucket, and COS generates a unique version ID for the object being copied. This version ID is different from the version ID of the source object. COS returns the version ID of the copied object in the response header in the x-cos-version-id response.
If you do not enable or paused version control in the target bucket, the version ID generated by COS is always null.

> **Note:**
> When copying across accounts, you need to set the permissions of the copied files to read, or grant access to the target account.

Request

Request example:

```
PUT /destinationObject HTTP/1.1
Host: <Bucketname-APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Authorization: Auth String
x-cos-copy-source: <Bucketname>-<APPID>.cos.<Region>.myqcloud.com/filepath
```

> Authorization: Auth String (See Request Signature)

Request Line

```
PUT /{ObjectName} HTTP/1.1
```

The API accepts `PUT` requests.

Request Headers

Common Headers

The implementation of this request operation uses the common request header. For details on the common request header, see the Common Request Header.

Non-common Headers

Name	Type	Required	Description

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Name	Type	Required	Description
x-cos-copy-source	string	is the	Source file URL path, which can be specified by the versionid sub-resource
x-cos-metadata-directive	string	No	Whether to copy metadata. Values: `Copy` (default), `Replaced`. For `Copy`, the user metadata information in the Header is ignored and copied directly; if it is marked as `Replaced`, the metadata is modified by the Header information. When the target path is the same as the original path, that is, when the user tries to modify the metadata, it must be Replaced.
x-cos-copy-source-If-Modified-Since	string	No	When an Object is modified after a specified time, the operation is performed, otherwise it returns 412. It can be used with x-cos-copy-source-If-None-Match. Conflicts occurs for conjunction with other conditions
x-cos-copy-source-If-Unmodified-Since	string	No	When the Object is not modified after the specified time, the operation is performed, otherwise it returns 412. It can be used with x-cos-copy-source-If-Match. Conflicts occurs for conjunction with other conditions
x-cos-copy-source-If-Match	string	No	When the Etag of the Object matches the given, the operation is performed, otherwise it returns 412. Can be used with x-cos-copy-source-If-Unmodified-Since to return conflicts in conjunction with other conditions

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Name	Type	Required	Description
x-cos-copy-source-If-None-Match	string	No	When the Etag of the Object is inconsistent with the given, the operation is performed, otherwise it returns 412. Can be used with x-cos-copy-source-If-Modified-Since to return conflicts in conjunction with other conditions
x-cos-storage-class	string	No	Set the storage level of Object, enumeration value: STANDARD, STANDARD_IA, default value: STANDARD
x-cos-acl	string	No	Defines the ACL property of the Object. Valid values: private, public-read-write, public-read; Default: private
x-cos-grant-read	string	No	Grant READ access to the specified persons. Format: x-cos-grant-read: id=" ",id=" "; For a sub-account, id="qcs::cam::uin/\:uin/<SubUin>", For a root account, id="qcs::cam::uin/\:uin/\"
x-cos-grant-write	string	No	Grant WRITE access to the specified persons. Format: x-cos-grant-read: id=" ",id=" "; For a sub-account, id="qcs::cam::uin/\:uin/<SubUin>", For a root account, id="qcs::cam::uin/\:uin/\"
x-cos-grant-full-control	string	No	Grant READ and WRITE access to the specified persons. Format: x-cos-grant-read: id=" ",id=" "; For a sub-account, id="qcs::cam::uin/\:uin/<SubUin>", For a root account, id="qcs::cam::uin/\:uin/\"
x-cos-meta-*	string	No	Other custom file headers

server encryption related headers

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The request operation specifies the protection strategy for applying data encryption when Tencent Cloud COS is in data storage. Tencent Cloud COS will help you automatically encrypt data as it is written to the data center and automatically decrypt it when you access it. AES-256 encryption is now supported for data using the Tencent Cloud COS Master Key. If you need to enable server-side encryption for your data, you need to pass in the following header:

Name	Description	Type	Required
x-cos-server-side-encryption	Specifies how the server is enabled for server-side encryption. Use COS master key encryption to fill in: AES256	String	For encryption, yes

Request Body

The request request body is empty.

Response

Response header

Common response header

The response uses a common response header. For a detailed description of the common response header, see the Common Response Header section.

API response header

Name	Description	Type
x-cos-version-id	The version of the replicated object in the target bucket.	String
x-cos-server-side-encryption	If the object is stored by COS-managed server-side encryption, the response will contain the value of this header and the encryption algorithm used, AES256.	String

Response body

The copy is successful and the response body is returned.

```
<CopyObjectResult>
<ETag>"ba82b57cfdfda8bd17ad4e5879ebb4fe"</ETag>
<LastModified>2017-08-04T02:41:45</LastModified>
</CopyObjectResult>
```

The specific data is described as follows:

Node Name (Keyword)	Parent Node	Description	Type	Required

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Node Name (Keyword)	Parent Node	Description	Type	Required
ETag	None	Returns the MD5 algorithm check value of the file. The value of ETag can be used to check if the contents of the Object have been changed	string	

Sample Code

Request

```
PUT /222.txt HTTP/1.1
Host: bucket1-1252443703.cos.ap-beijing.myqcloud.com
Date: Fri, 04 Aug 2017 02:41:45 GMT
Connection: keep-alive Accept-Encoding: gzip, deflate Accept: */*
User-Agent: python-requests/2.12.4
Authorization: q-sign-algorithm=sha1&q-ak=AKID15IsskiBQKTZbAo6WhgcBqVls9SmuG00&q-sign-time=1480932292;1981012292&q-key-time=1480932292;1981012292&q-url-param-list=&q-header-list=host&q-signature=eacefe8e2a0dc8a18741d9a29707b1dfa5aa47cc
x-cos-copy-source: bucket2-1252443704.cos.ap-beijing.myqcloud.com/1.txt
Content-Length: 0
```

Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 133
Connection: keep-alive
Date: Fri, 04 Aug 2017 02:41:45 GMT
Server: tencent-cos
x-cos-request-id: NTk4M2RlZTlfZDRiMDM1MGFfYTA1ZV8xMzNlYw==

<CopyObjectResult>
<ETag>"ba82b57cfdfda8bd17ad4e5879ebb4fe"</ETag>
<LastModified>2017-08-04T02:41:45</LastModified>
</CopyObjectResult>
```

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Upload Part

Last updated：2018-08-13 10:33:01

Description

Upload Part request is used to implement the multipart upload after initialization. The allowed number of parts is limited to 10,000, and the size of part should be between 1 MB and 5 GB.
You can obtain an uploadid when you use the API "Initiate Multipart Upload" to initiate multipart upload. This ID exclusively identifies this multipart data, and the relative position of this multipart in the entire file. Upload Part should be used with partNumber and uploadId. partNumber is the part No. and supports out-of-order upload.
If the uploadId and partNumber are the same, the parts uploaded later will overwrite the parts uploaded earlier. A 404 error "NoSuchUpload" will be returned if the uploadId does not exist.

Request

Syntax:

```
PUT /ObjectName?partNumber=PartNumber&uploadId=UploadId HTTP/1.1
Host: <BucketName>-<APPID>.cos.<Region>.myqcloud.com
Date: GMT Date
Content-Length: Size
Authorization: Auth String
```

Authorization: Auth String (For more information, please see Request Signature chapter)

Request Line

```
PUT /ObjectName?partNumber=PartNumber&uploadId=UploadId HTTP/1.1
```

This API allows PUT request.

Request Parameters

Example of request line that contains all request parameters.

```
PUT /ObjectName?partNumber=PartNumber&uploadId=UploadId HTTP/1.1
```

See the details below:

Parameter Name	Description	Type	Required
partNumber	Indicate the No. of current multipart upload	String	Yes
uploadId	Indicate the ID of current multipart upload. You can obtain an uploadid when you use the API "Initiate Multipart Upload" to initiate multipart upload. This ID exclusively identifies this multipart data, and the relative position of this multipart in the entire file	String	Yes

Request Header

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Common Header

This request operation is implemented using common request header. For more information, please see Common Request Headers chapter.

Non-common Header

Required Header

The following required request header is needed for the implementation of request operation. Details are shown below:

Name	Description	Type	Required
Content-Length	HTTP request content length defined in RFC 2616 (in bytes)	String	Yes

Recommended Header

The following recommended request headers are recommended for implementation of this request operation. Details are shown below:

Name	Description	Type	Required
Expect	HTTP request content length defined in RFC 2616 (in bytes)	String	Yes
Content-MD5	128-bit content MD5 check value encoded using Base64, defined in RFC 1864. This header is used to check whether the file content has changed	String	No

Request Body

The request body of this request is null.

Response

Response Header

Common Response Header

This response uses common response header. For more information, please see Common Response Headers chapter.

Specific Response Header

No particular response header for this response.

Response Body

The response body of this response is null.

Practical Case

Request

```
PUT /ObjectName?partNumber=1&uploadId=1484727270323ddb949d528c629235314a9ead80f0ba5d993a3d76b460e6a9cceb9633b08e HTTP/1.1
Host: arlenhuangtestsgnoversion-1251668577.cos.ap-beijing.myqcloud.com
Date: Wed, 18 Jan 2017 16:17:03 GMT
Authorization: q-sign-algorithm=sha1&q-ak=AKIDWtTCBYjM5OwLB9CAwA1Qb2ThTSUjfGFO&q-sign-time=1484727403;32557623403&q-key-time=1484727403;32557623403&q-header-list=host&q-url-param-list=partNumber;uploadId&q-signature=bfc54518ca8fc31b3ea287f1ed2a0dd8c8e88a1d
Content-Length: 10485760

[Object]
```

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Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: 0
Connection: keep-alive
Date: Wed, 18 Jan 2017 16:17:03 GMT
Etag: "e1e5b4965bc7d30880ed6d226f78a5390f1c09fc"
Server: tencent-cos
x-cos-request-id: NTg3ZjI0NzlfOWIxZjRlXzZmNGJfMWYy
```

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Upload Part - Copy

Last updated：2018-08-28 11:28:57

Description

The Upload Part - Copy request implements copying the a file part from the source path to the target path. Use `x-cos-copy-source` to specify the source file, use `x-cos-copy-source-range` to specify byte range (the part size can be 5 MB - 5 GB).

###Version
When the bucket is enabled for multiple versions, x-cos-copy-source identifies the current version of the object being copied. If the current version is a delete tag and x-cos-copy-source does not specify a version, COS considers the object deleted and returns a 404 error. If you specify versionId in x-cos-copy-sourceand and versionId is the delete tag, COS returns an HTTP 400 error because the delete tag is not allowed as the version of x-cos-copy-source.

Request

Request example:

```
PUT http://{bucket}.cos.{region}.myqcloud.com/{ObjectName}?partNumber=PartNumber&uploadId=UploadId HTTP/1.1
Host: <Bucketname-APPID>.cos.<Region>.myqcloud.com

X-cos-copy-source: string
X-cos-copy-source-range: string
x-cos-copy-source-If-Modified-Since: string
x-cos-copy-source-If-Unmodified-Since: string
x-cos-copy-source-If-Match: string
x-cos-copy-source-If-None-Match: string
X-cos-storage-class: STANDARD
X-cos-acl: public-read
X-cos-grant-read: id="qcs::cam::uin/\<OwnerUin>:uin/<SubUin>"
X-cos-grant-write: id="qcs::cam::uin/\<OwnerUin>:uin/<SubUin>".
X-cos-grant-full-control: id="qcs::cam::uin/\<OwnerUin>:uin/<SubUin>"

Date: GMT Date
Authorization: Auth String
```

Authorization: Auth String (see Request Signature for details)

Request line

```
PUT /{ObjectName} HTTP/1.1
```

The API accepts `PUT` requests.

Request Parameters

Name	Type	Required	Description

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Name	Type	Required	Description
partNumber	string	Yes	The sequence number of the file part
uploadId	string	Yes	To upload a file part, you must first initialize part upload. Then an uploadId is returned, which need to be added to the part upload request.

Request Headers

Common Headers

The implementation of this request operation uses the common request headers. For details on the common request headers, see Common Request Header.

Non-common Headers

Name	Description	Type	Required
x-cos-copy-source	Source file URL path, which can be specified by the versionid sub-resource	string	Yes
x-cos-copy-source-range	The byte range of the source file, the range value must be in the bytes=first-last format, first and last are offsets based on 0	string	No
x-cos-copy-source-If-Modified-Since	When an Object is modified after a specified time, the operation is performed, otherwise it returns 412. It can be used with x-cos-copy-source-If-None-Match. Conflict occurs for usage with other conditions	string	No
x-cos-copy-source-If-Unmodified-Since	When the Object has not been modified after the specified time, the operation is performed, otherwise it returns 412. It can be used with x-cos-copy-source-If-Match. Conflict occurs for usage with other conditions	string	No
x-cos-copy-source-If-Match	When the Etag of the Object matches the given, the operation is performed, otherwise 412 is returned. It can be used with x-cos-copy-source-If-Unmodified-Since. Conflict occurs for usage with other conditions	string	No
x-cos-copy-source-If-None-Match	When the Etag of the Object is inconsistent with the given, the operation is performed, otherwise it returns 412. It can be used with x-cos-copy-source-If-Modified-Since. Conflict occurs for usage with other conditions	string	No
x-cos-storage-class	Sets the storage level of the Object. Values: STANDARD, STANDARD_IA, ARCHIVE, default: STANDARD	string	No

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Name	Description	Type	Required
x-cos-acl	Defines the ACL property of the Object. Valid values: private, public-read-write, public-read; default: private	string	no
x-cos-grant-read	Grant READ access to the specified persons. Format: x-cos-grant-read: id=" ",id=" "; For sub-account, id="qcs::cam::uin/\:uin/", For root account, id="qcs::cam::uin/\:uin/\"	string	No
x-cos-grant-write	Grant WRITE access to the specified persons. Format: x-cos-grant-write: id=" ",id=" "; For a sub-account, id="qcs::cam::uin/\:uin/", For a root account, id="qcs::cam::uin/\:uin/\"	String	No
x-cos-grant-full-control	Grant READ and WRITE access to the specified persons. Format: x-cos-grant-full-control: id=" ",id=" "; For a sub-account, id="qcs::cam::uin/\:uin / ", For a root account, id =" qcs :: cam :: uin / \ : uin / \ "	string	No
x-cos-copy-source-range	The byte range of the source file, the range value must be in the bytes=first-last format, and both first and last are offsets based on 0. For example, bytes=0-9 means that you want to copy the first 10 bytes of data in the source file. If not specified, it means copying the entire file.	Integer	No

Request body

The request request body is empty.

Response

Response Headers

Common Response Headers

The response uses common response headers. For a detailed description of the common response header, see Common Response Header.

API Response Headers

Name	Description	Type
X-cos-copy-source-version-id	Copy the version of the source object if multiple versions have been enabled on the source bucket.	string
X-cos-server-side-encryption	If the object is stored by COS-managed server-side encryption, the response will contain the value of this header and the encryption algorithm used, AES256.	String

Response Body

The copy is successful and the response body is returned.

```
<?xml version="1.0" encoding="UTF-8" ?>
<ETag>string</ETag>
<LastModified>string</LastModified>
```

The specific data is described as follows:

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Node Name (Keyword)	Parent Node	Description	Type
ETag	None	Returns the MD5 algorithm check value of the file. The value of ETag can be used to check if the contents of the Object have been changed	string

Sample Code

Request

```
PUT /jimmy/test.file2?partNumber=1&uploadId=1505706248ca8373f8a5cd52cb129f4bcf85e11dc8833df34f4f5bcc456c99c42cd1ffa2f9 HTTP/1.1
User-Agent: curl/7.19.7 (x86_64-redhat-linux-gnu) libcurl/7.19.7 NSS/3.13.1.0 zlib/1.2.3 libidn/1.18 libssh2/1.2.2
Accept: */*
X-cos-copy-source:jimmyyantest-1251668577.cos.ap-shanghai.myqcloud.com/test.file1
X-cos-copy-source-range: bytes=10-100
Host: jimmyyantest-1251668577.cos.ap-shanghai.myqcloud.com
Authorization: q-sign-algorithm = sha1 & q-ak = AKIDDNMEycgLRPI2axw9xa2Hhx87wZ3MqQCn & q-sign-time = 1507530223; 1508530223 & q-key-time = 1507530223; 1508530223 & q-header-list = & q-url-param-list = & q-signature = d02640c0821c49293e5c289fa07290e6b2f05cb2
```

Response

```
HTTP /1.1 200 OK
Content-Type: application/xml
Content-Length: 133
Connection: keep-alive
Date: Mon, 04 Sep 2017 04:45:45 GMT
Server: tencent-cos
X-cos-request-id: NTlkYjFjYWJfMjQ4OGY3MGFfNGIzZV9k

<CopyPartResult>
<ETag>"ba82b57cfdfda8bd17ad4e5879ebb4fe"</ETag>
<LastModified>2017-09-04T04:45:45</LastModified>
</CopyPartResult>
```

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