Cloud Object Storage FAQs

Product Documentation
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General FAQs

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What is COS?

Tencent Cloud Cloud Object Storage (COS) is a cloud-based non-hierarchical distributed storage service that provides cost-effective, fast, and reliable data storage solutions. COS stores your data across multiple AZs in a redundant manner and allows multiple clients or application threads to read or write your data at the same time.

You can use web APIs to store and retrieve data on a CVM instance or over the internet. You can also use the URL of the specified domain name to store and retrieve individual data object in COS over the HTTP or HTTPS protocol.

For more information on COS, see COS Product Overview.

What is the difference between COS and CFS?

COS has no limit on directory hierarchy or data format and can store any amounts of data. There is no upper limit on the storage capacity of buckets where no partitioning is required. It supports HA deployment to ensure the eventual consistency of data but not features such as file locking. Its APIs are provided for data access using the HTTP or HTTPS protocol, and its SDKs and tools can be integrated into your businesses. Objects uploaded to COS can be accessed or downloaded directly through URL.

Cloud File Storage (CFS) uses common network file transfer protocols, can create file systems and implement large-scale expansion, but needs to be mounted onto CVM. It can store data for a wide range of applications such as websites, online distribution, and archiving. Featuring high computing throughput and extremely high availability and persistence, it is also suitable for scenarios demanding high concurrence or shared storage.

What is the difference between COS and Cloud Block Storage (CBS)?

COS has no limits on file systems, directory structure, number of files, and storage capacity. It needs to be managed and accessed via web APIs. It offers various SDKs and tools for integration, which can also be used separately without CVM. COS supports access to massive amounts of data but is not suitable for scenarios involving millisecond-level response or random I/O.

Cloud Block Storage (CBS) needs to be used together with CVM and can only be mounted and used after the file system is partitioned or formatted. It comes in different types with various performance metrics such as IOPS and throughput for different scenarios.
Why does the access link of a public-read file expire?
You can go to the object details page in the COS Console to get the object address and signature link.

If your file is public-read:
- If you want to make it accessible to others all the time, you are recommended to directly use the object address.
- If you want to make it accessible to others for a certain period of time, you are recommended to directly copy the signature link, which carries the signature parameter and is valid for 1 hour.

If your file is private:
- If you want to make it accessible to others all the time, you are recommended to change its access permission to public-read/private-write and use the object address.
- If you want to make it accessible to others for a certain period of time, you are recommended to directly copy the signature link, which carries the signature parameter and is valid for 1 hour.

What is "folder" or "directory" in COS?
The concepts of folder and directory do not apply to COS. However, taking into account the usage habits of different users, COS simulates the display mode of folders in the console based on the directory structure of traditional file management. For more information, see Folder and Directory.

Can COS files be recovered after being deleted?
The data redundancy storage mechanism of COS is designed for scenarios where it is necessary to recover data in case of failures in hardware such as servers. If you manually delete your data from COS or configure automated deletion, Tencent Cloud will delete the data as requested in an irrecoverable manner.

You can proactively delete files in the following ways:
- Delete a single file, delete files in batches, clear incomplete multipart uploads, or empty buckets in the COS Console.
- Delete files using COSCMD or COSBrowser.
- Delete files using the COS APIs or SDKs.
- Configure the system to delete files regularly through the lifecycle management feature of COS.
- Sync the CRUD operations between buckets in different regions using the full sync feature of cross-region replication in COS, so that existing files with the same name will be overwritten or deleted.

How can I avoid accidental deletion?
• Back up the files in your bucket on a regular basis:
  ○ Download the objects in COS to your local file system or third-party servers using the COSCMD.
  ○ Perform intra-region or cross-region bucket data backup using the COS Migration tool or the cross-region replication feature.
  ○ Regularly back up your data to other COS buckets using the COS APIs or SDKs.
  ○ Save your historical versions of data using versioning.
• Use COS permission management. For more information, see Cloud Access Management Practices:
  ○ Separate read permission and write permission. For businesses where it is only necessary to read data, use a sub-account with read permission or a temporary key to access the data.
  ○ Separate the permission to different buckets. For different businesses, only authorize the corresponding buckets, directories, and operations as needed.
  ○ Do not use a root account to access COS.
  ○ Use a temporary key to access COS.
  ○ Keep the credentials for data access properly, such as Tencent Cloud account password, CAM sub-account access credentials, and TencentCloud API key.

**Does COS have the statistics collection feature?**

COS is capable of monitoring stored data and displaying details and trends of various metrics in the monitor window. To view general data trends, go to the **Overview** page in the COS Console where you can view data such as storage size, number of requests, and traffic by storage class.

To view statistics of a single bucket, see **Querying Monitoring Reports**.

In addition, you can also go to **Cloud Monitor** to view the monitoring data of different buckets and configure different alarm policies based on your business needs.

**Does COS support image compression?**

COS is a distributed storage service for unstructured data and does not support image compression.

**Does COS support thumbnails?**

COS is a distributed storage service for unstructured data and does not support thumbnails.

**Does COS support transcoding video files?**

COS is a distributed storage service for unstructured data and does not support transcoding video files.

**Does COS support automatic decompression of uploaded files?**

COS is a distributed storage service for unstructured data and does not support file decompression; however, you can use the SCF service to decompress files. For more information, see **Using SCF to Decompress Zip Packages**.
What are the specifications and limits of COS?

For more information, see Specifications and Limits.

Which version of COS should I use, a legacy version or the current version?

The implementation of legacy versions and that of the current version of COS are quite different. The current version has more features that will not be added to legacy versions. You are recommended to use the current version for a better experience. If you are using a legacy version, submit a ticket to activate the current version.

The current version comes with different APIs and SDKs from those in legacy versions. JSON APIs are used in legacy versions, while XML APIs are used in the current version. Both types of APIs have the same underlying architecture where data is interoperable; however, they are incompatible with each other and have different domain names.

How do I monitor error codes?

You can use Cloud Monitor to get different types of HTTP return codes and messages. For more information, see Monitoring and Alarming.

How do I calculate the availability of COS?

Below is an example of calculating the availability of COS for your reference:

Tom uses COS to run his ecommerce business. Assume that his business incurred fees of 100 USD from November 1 to 30, 2018, during which two unavailability events occurred as shown below:

<table>
<thead>
<tr>
<th>Unavailability Event No.</th>
<th>Duration</th>
<th>5-Minute Record of Unavailability Event</th>
<th>HTTP Return Code</th>
<th>Number of Failing Requests</th>
<th>Number of Valid Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15 minutes</td>
<td>November 15, 2018, 10:00 - 10:05</td>
<td>503</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>November 15, 2018, 10:05 - 10:10</td>
<td>503</td>
<td>99</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>November 15, 2018, 10:10 - 10:15</td>
<td>503</td>
<td>98</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>15 minutes</td>
<td>November 20, 2018, 16:00 - 16:05</td>
<td>500</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td></td>
<td>November 20, 2018, 16:05 - 16:10</td>
<td>500</td>
<td>148</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td></td>
<td>November 20, 2018, 16:10</td>
<td>500</td>
<td>140</td>
<td>150</td>
</tr>
</tbody>
</table>
In other periods of time, Tom’s requests were successful with 200 status codes returned. In this case, the overall availability of the service month is as follows:

1. **Calculate the 5-minute error rate for the current month**

As shown in the example, when Tom’s business was normal, the 5-minute error rate was 0%.

Unavailability event 1: The duration was November 15, 2018, 10:00 - 10:15, and the 5-minute error rate was:

- 100 / 100 * 100% = 100%
- 99 / 100 * 100% = 99%
- 98 / 100 * 100% = 98%

Unavailability event 2: The duration was November 20, 2018, 16:00 - 16:15, and the 5-minute error rate was:

- 150 / 150 * 100% = 100%
- 148 / 150 * 100% = 98.67%
- 140 / 150 * 100% = 93.33%

2. **Calculate the service availability of the service month**

In this example:

- Total duration of the service month: 30 days * 24 hours/day * 60 minutes/hour = 43,200 minutes
- Total number of 5-minute periods in the service month: 43,200 minutes / 5 minutes = 8,640
- Total number of unavailable 5-minute periods in the service month: (15+15) minutes / 5 minutes = 6
- Sum of the 5-minute error rates in the service month:
  \[(100%+99%+98%+100%+98.67%+93.33%)+(8,640-6) * 0% = 589%\]

Service availability for the month: (1-589%/8640) * 100% = 99.93%

3. **Calculate the indemnification**

In this example, the service availability is 99.93%, which is lower than the standard 99.95% but higher than 99.9%. According to the indemnification standard, Tom is eligible for indemnification equivalent to 20% of the total monthly service fees, i.e., 20 USD.

Tom only needs to submit a ticket to apply for indemnification within sixty (60) calendar days after
the end of the service month, i.e., prior to January 29, 2019, and Tencent Cloud will indemnify Tom for his losses by issuing a voucher.
Billing

Last updated: 2020-01-14 12:04:18

Does COS have a free tier?

We provide new COS users with a free tier of standard storage capacity with a validity period of 6 months. For more information, see Free Tier.

How is COS billed?

The fees of COS are broken down into five items: storage capacity, requests, data retrievals, traffic, and management Feature Fees.

For information on billable items in COS and billing rules, see Billing Restrictions.

Why is my account still in arrears (fees are deducted) even if I am entitled to the free tier?

Possible reasons include:

1. Other billable items: COS fees are charged for storage, requests, data retrievals, traffic, and management Feature Fees. Currently, the free tier is only applicable to standard storage, while other billable items will be billed as incurred.
2. Charges for excessive use of resources. For example, if you are entitled to 50 GB of free standard storage capacity, but your actual storage exceeds 50 GB, the excessive storage will be billed as incurred.
3. Expiration of the free tier. We provide new COS users a free tier of standard storage capacity with a validity period of 6 months. After the expiration of the free tier, storage will be billed as incurred. You can log in to the COS Console to view the validity period for your free tier on the subscription plan management page.

How can I check my bills?

You can view information about the fees incurred by COS in the Billing Center in the console. For more information, see Viewing Billing Details.

Will fees be charged for requests and traffic generated by data transfer between COS and CVM?

No fees will be charged for traffic that is generated by data transfer between COS and CVM in the same region as the transfer is over the private network. For more information on how to identify private network access, see How to determine an access via private network. If your COS and CVM services are in different regions, the traffic will be billed.
All requests generated by data transfer between CVM and COS will be billed.

**How is the public network downstream traffic in COS billed?**

Public network downstream traffic is traffic generated by data transfer from COS to the client over the internet. Traffic generated by downloading an object directly through an object link or by browsing an object through a static website access node is public network downstream traffic. For more information on billing for such traffic, see [Billing Restrictions](#) and [Product Pricing](#).

**How is the CDN origin-pull traffic in COS billed?**

CDN origin-pull traffic is traffic generated by data transfer from COS to a CDN edge server. After CDN acceleration is enabled, traffic generated by browsing or downloading COS data in the client is CDN origin-pull traffic. For more information on billing for such traffic, see [Billing Restrictions](#) and [Product Pricing](#).

**Will traffic fees be incurred by uploading a file to a COS bucket?**

No.

**Will traffic fees be incurred when Tencent Cloud products in the same region access each other?**

Tencent Cloud products in the same region access each other over the private network by default and no traffic fees will be incurred. For more information, see [How to determine an access via private network](#).

**If my account is in arrears and COS service is suspended, can I still access and download files in the COS Console?**

If your COS service is suspended because your account is in arrears, you have no access to the console. Your data will be retained for 120 days. If you fail to top up your account to a positive balance within this period, your data will be destroyed. For more information, see [Arrears](#).

**Will traffic fees be incurred when the objects stored in COS are under DDoS attacks?**

DDoS attacks on objects do not incur traffic fees. COS buckets come with hotlink protection, which can reduce the impact of DDoS attacks. For more information, see [Setting Hotlink Protection](#).
FAQs About APIs and Other SDKs

What if an error message such as "Time out" is displayed when I call an API?

There are two possible reasons for this:

- The signature has expired when you initiate the request.
- Your system time is different from the local time.

In the former case, you are advised to get a new valid request signature before using the API, while in the latter case, you need to correct your system time according to the local time.

How do I call an API to delete partially uploaded files?

First, call the ListMultipartUploads API to list the partially uploaded files. Then, call the Abort Multipart upload API to abort the multipart upload and delete parts that are already uploaded.

What should I do if it returns correctly after calling the batch deletion API but in fact the file deletion failed?

Check the deleted file path, which should not begin with a `/`.

How do I get a temporary download URL in the SDK for Python?

For more information, see Pre-signed URL.

Can I access the SDK with a CDN-accelerated domain name?

Yes. See the SDK documentation for your programming language.

FAQs About the SDK for WeChat Mini Program

How do I configure and limit the whitelist if multiple domain names are requested in the WeChat Mini Program or the bucket name is unknown?

When you instantiate the SDK, enable the suffix using `ForcePathStyle:true`. If you make a suffixed request in a URL format like `https://cos-ap-beijing.myqcloud.com/<BucketName-APPID>/<Key>`, the bucket name `<BucketName-APPID>` will also be included in the signature calculation.
How to save an image in the WeChat Mini Program to the device?

The image URL can be obtained using `cos.getObjectUrl` first. Then, the `wx.downloadFile` API can be called to download the image and obtain the temporary path. When the "Save Image" button appears and the user taps it, the `wx.saveImageToPhotosAlbum` API will be called to save the image to the album on the device.

FAQs About SDK for Java

Why does `java.lang.NoSuchMethodError` appear when I run the SDK?

Typically, it is because a JAR package conflict has occurred: for example, if the JAR package in the HttpClient library in your project does not have method A, but the JAR package that the SDK relies on uses method A, then the HttpClient library in your project will be loaded based on the runtime load order and the runtime will throw the NoSuchMethodError exception.

Solution: change the version of the package in your project that has caused NoSuchMethodError to the version of the corresponding library in pom.xml in the SDK.

What if upload is slow in the SDK with IOException frequently printed in the log?

Cause and solution:

a. Check whether you are accessing COS through the public network. Currently, CVM instances in the same region as COS can access COS through the private network (the IP ranges resolved by the private domain name is 10, 100, and 169). For more information on COS domain names, see Regions and Access Domain Names. If the public network is used, check whether the egress bandwidth is too small or whether bandwidth resources are occupied by other programs.

b. Make sure that the logs in the production environment are not at the DEBUG level. INFO logs are recommended.

c. Currently, the simple upload speed is up to 10 MB/s, and the speed of 32 concurrent uploads using advanced APIs can reach 60 MB/s. If the speed is far lower than those two values, see a and b.

d. If a WARN log prints IOException, ignore it, as the SDK will retry. IOException may be caused by slow network connection. For possible reasons, see a and b.

How to create a directory in the SDK?

In COS, both files and directories are objects, where directories are just objects that end with `/`. When creating a file, you don’t need to create a directory. For example, when you create a file with the object key of `xxx/yyyy/zzz.txt`, set the key to `xxx/yyyy/zzz.txt` instead of creating the object
xxx/yyy/ . Directories are separated by `/` to show the hierarchy when displayed in the console. To create a directory object, use the following sample code:

```java
String bucketName = "examplebucket-1250000000";
String key = "folder/images/";
// A directory object is an empty file that ends with /, where a byte stream with a length of 0 is uploaded
InputStream input = new ByteArrayInputStream(new byte[0]);
ObjectMetadata objectMetadata = new ObjectMetadata();
objectMetadata.setContentType("text/plain");
objectMetadata.setContentType("application/pdf");

PutObjectRequest putObjectRequest =
    new PutObjectRequest(bucketName, key, input, objectMetadata);
PutObjectResult putObjectResult = cosClient.putObject(putObjectRequest);
```

**How to use HTTPS in the SDK?**

In the SDK, relevant configuration items are put in the ClientConfig class. Below is the sample code:

```java
// Initialize user credentials (secretId and secretKey)
String secretId = "COS_SECRETID";
String secretKey = "COS_SECRETKEY";
COSCredentials cred = new BasicCOSCredentials(secretId, secretKey);

// Set the bucket region. For abbreviations of COS regions, see https://cloud.tencent.com/document/product/436/6224
ClientConfig clientConfig = new ClientConfig(new Region("ap-beijing-1"));

// Configure HTTPS
clientConfig.setHttpProtocol(HttpProtocol.https);

// Generate a COS client
COSClient cosClient = new COSClient(cred, clientConfig);
```

**How to use a proxy in the SDK?**

If you need to use a proxy to access COS, you can configure a proxy IP (or a domain name) and port in the ClientConfig class. Below is the sample code:

```java
// Initialize user credentials (secretId and secretKey)
String secretId = "COS_SECRETID";
String secretKey = "COS_SECRETKEY";
COSCredentials cred = new BasicCOSCredentials(secretId, secretKey);

// Set the bucket region. For abbreviations of COS regions, see https://cloud.tencent.com/document/product/436/6224
ClientConfig clientConfig = new ClientConfig(new Region("ap-beijing-1"));

// Configure a proxy (you need to set both the IP and port at the same time.)
// Set the proxy IP (or pass in the domain name)
```
clientConfig.setHttpProxyIp("192.168.2.3");

// Set the proxy port
clientConfig.setHttpProxyPort(8080);

// Generate a COS client
COSClient cosClient = new COSClient(cred, clientConfig);
Tools

COS Migration Tool

Last updated : 2020-04-17 10:07:13

What should I do if the migration tool exit abnormally?

The migration tool supports resuming upload from breakpoint. If the upload of a large file is interrupted due to the tool error or service failure, you can run the tool again and resume the upload from the breakpoint.

If the files that have been migrated successfully to COS are deleted through the console or other methods, will the migration tool upload them again?

No. All the migrated files are recorded in db. The migration tool scans db directory before each migration and the files recorded in db will not be uploaded again. For more information, see Migration Mechanism and Process.

What should I do if the migration fails with an message “403 Access Deny” shown in the log?

Check whether your key, Bucket and Region information is correct and ensure you have the operation permission. If you're using a sub-account, it needs to be authorized by the parent account. If you migrate data locally or from other cloud storages, write/read access to the bucket is required. For the "Bucket copy" operation, read access to the source bucket is also required.

What should I do if the migration to COS from another cloud storage fails with an error message "Read timed out"?

This error occurs when the data download from other cloud storages times out due to insufficient bandwidth. For example, when you migrate overseas data from AWS to COS, "read time out" may occur due to network latency caused by insufficient bandwidth. To solve this problem, you can increase the network bandwidth and test download speed with wget before migration.

What should I do if the migration fails with a message "503 Slow Down" shown in the log?

This error occurs when frequency control is triggered. A limit of 30000 QPS is imposed on an account in COS. You are recommended to decrease the concurrency for small files in configuration. Then run the tool again to resume the migration.

What should I do if the migration fails with the message "404 NoSuchBucket" shown in the log?
Check whether your key, Bucket and Region information is correct.

**What should I do if an exception occurs with the following message?**

```
Exception in thread "main" java.lang.ExceptionInInitializerError
    at org.rocksdb.RocksDB.loadLibrary (RocksDB.java:64)
    at org.rocksdb.RocksDB.<clinit> (RocksDB.java:35)
    at org.rocksdb.Options.<clinit> (Options.java:25)
    at com.qcloud.cos_migrate_tool.record.RecordDb.init (RecordDb.java:43)
    at com.qcloud.cos_migrate_tool.task.TaskExecutor.init (TaskExecutor.java:94)
    at com.qcloud.cos_migrate_tool.task.TaskExecutor.run (TaskExecutor.java:146)
    at com.qcloud.cos_migrate_tool.app.App.main (App.java:60)
Caused by: java.lang.UnsupportedOperationException: Cannot determine JNI library name for ARCH="x86" OS="windows 10" name="rocksdb"
    at org.rocksdb.util.Environment.getJNILibName (Environment.java:78)
    at org.rocksdb.NativeLibraryLoader.<clinit> (NativeLibraryLoader.java:19)
    ... 7 more
```

The possible reason is that the tool is using rocksdb which requires 64-bit JDK. Check whether your JDK version is X64.

**What should I do if the message "rocksdb's jni library cannot be found" is displayed in Windows environment?**

In Windows environment, the tool needs to be compiled in the Microsoft Visual Studio 2015. In case of the above error message, you need to install [Visual C++ Redistributable for Visual Studio 2015](https://visualstudio.microsoft.com/en-us/downloads/).

**How do I modify the log level?**

Modify the file `src/main/resources/log4j.properties` by replacing the value of `log4j.rootLogger` with the log level, such as DEBUG, INFO, and ERROR.

In case of other problems, try running the migration tool again. If the failure persists, submit a ticket attached with a compressed file containing the configuration information (with key information hidden) and the log directory.
Does the COSCMD tool support regular expressions?

No.

I can successfully create a bucket with a name containing uppercase letters using COSCMD tool, but when I perform other operations with a bucket name containing uppercase letters, an error occurs. What is the reason for this?

The COSCMD tool automatically converts uppercase letters to lowercase ones. A bucket name can only contain lowercase letters, numbers, and hyphen (-), with a length not greater than 50 characters. For more information, see Use Limits.

Can the files in a sub-directory be excluded when I download the files in the root directory with COSCMD tool?

Yes. You can filter our files using `coscmd download --ignore /folder/*`. If you need to ignore the folder with a certain suffix, be sure to append `,` to the "*" character, or enclose it with `""`. 
FAQs About Features

How do I mount a bucket with a temporary key?

You can mount a bucket using a temporary key (STS) by following the steps below:

Step 1. Create a temporary key configuration file, such as /tmp/passwd-sts, for the COSFS command option "-opasswd-file=[path]" to specify the key configuration file. For more information on temporary keys, see Generating and Using Temporary Keys. Below is an example of temporary key configuration file:

```
COSAccessKeyId=AKIDXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX # Below are the Id, Key, and Token fields of the temporary key
COSSecretKey=GYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY
COSAccessToken=109dbb14ca0c30ef4b7e2fc9612f2678cadbfac3
COSAccessTokenExpire=2017-08-29T20:30:00 # Expiration time of the temporary token in GMT time, which should be in the same format as shown here
```

COSFS will determine whether it needs to reload the configuration from the key file based on the time configured in COSAccessTokenExpire.

To prevent key leakage, you should set the key file permission to 600 in COSFS by running the following command:

```
chmod 600 /tmp/passwd-sts
```

Step 2. Run the COSFS command. Specify the role as sts using the command option "-ocam_role=[role]" and specify the key file path using "-opasswd_file=[path]", as shown below:

```
```

How do I check the mounting parameter options and version number provided by COSFS?
You can check the parameter options provided by COSFS using the `cosfs --help` command and check the COSFS version number using `cosfs --version`.

**How do I view the logs generated by COSFS?**

COSFS-generated logs are stored in `/var/log/messages` in CentOS and in `/var/log/syslog` in Ubuntu. If any error occurs when you use the service, please send us the logs for the corresponding time period.

**How do I mount a directory in a bucket?**

When running the mounting command, you can specify a directory in the bucket as shown below:

```
cosfs examplebucket-1250000000:/my-dir /mnt/cosfs -ourl=http://cos.ap-guangzhou.myqcloud.com -odb glevel=info
```

`my-dir` must begin with `/`.

In versions below v1.0.5, the mounting command is:

```
```

**How can a non-root user mount COSFS?**

If you are not a root user, you are recommended to create a `.passwd-cosfs` file in the Home directory, set the permission to 600, and then mount COSFS using the mounting command. In addition, you can also specify the key file path using the `-opasswd_file=path` option and set the permission to 600.

**Does COSFS support mounting over HTTPS?**

Yes. Mounting methods over HTTP and HTTPS are as shown below:

```
-ourl=http://cos.ap-guangzhou.myqcloud.com
-ourl=https://cos.ap-guangzhou.myqcloud.com
```

If the version of the NSS library that libcurl depends on is v3.12.3 or higher (check the NSS version using `curl --V`), you can mount the bucket over HTTPS by run the following command:
How do I set auto-mounting at startup for COSFS?

Add the following to the /etc/fstab file. The "_netdev" option specifies that the command can be executed only after the network is ready:

```
examplebucket-1250000000 /mnt/cosfs fuse _netdev,allow_other,url=http://cos.ap-guangzhou.myqcloud.com,dbglevel=info
```

How do I mount multiple buckets?

If you need to mount multiple buckets simultaneously, write a line for each bucket to be mounted in the /etc/passwd-cosfs configuration file, with the content of each line being in the same format of that for a single bucket, such as:

```
echo examplebucket-1250000000:AKIDXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX:GYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY >> /etc/passwd-cosfs
```

How do I make a mounted directory accessible to other accounts on the server?

To make the mounted directory accessible to other accounts, specify `-oallow_other` during mounting.

Are there any restrictions on filenames in a COSFS-mounted directory?

In a COSFS-mounted directory, you can create a file whose name does not contain `/`. On a Unix-like system, the `/` character is a directory separator, so `/` is not allowed in filenames in a COSFS-mounted directory. In addition, when creating a file whose name contains special characters, make sure that such characters are not used by shell; otherwise, file creation may fail.

FAQs About Troubleshooting

What should I do if error message "unable to access MOUNTPOINT /path/to/mountpoint: Transport endpoint is not connected" is displayed and COSFS becomes inaccessible?
You can check whether the COSFS process exists using the `ps ax|grep cosfs` command. If the COSFS process is down due to faulty operations, run the following command to remount it:

```
umount -l /path/to/mnt_dir
cosfs examplebucket-1250000000:/my-dir /mnt/cosfs -ourl=http://cos.ap-guangzhou.myqcloud.com -odb
glevel=info
```

If the COSFS process error is not caused by faulty operations, you can check whether the fuse version of the server is below v2.9.4. The libfuse on versions below v2.9.4 can cause exceptional exit of the COSFS process. In this case, it is recommended to update the fuse version or install the latest version of COSFS as described in Installation and Usage.

**What should I do if the Content-Type of a file uploaded via COSFS is changed to "application/octet-stream"?**

COSFS automatically sets the Content-Type of a file uploaded to COS by comparing the file's suffix against /etc/mime.types. If a Content-Type error occurs, check whether the configuration file exists on the system. For Ubuntu, you can add it using "sudo apt-get install mime-support". For CentOS, you can add it using "sudo yum install mailcap". You can also create this file manually, where one line is added for each file format, as shown below:

```
image/jpeg jpg jpeg
image/jpm jpm jpgm
image/jpx jpx jpf
```

**What should I do if "Bucket not exist" is displayed during mounting?**

Check the parameter -ourl to ensure that the bucket part is not included in the URL. The correct format is:

```
-ourl=http://cos.ap-guangzhou.myqcloud.com
```

**Why can't I write to files that I could write to previously?**

Because of the adjustment to the COS authentication policy, using the COSFS tool below v1.0.0 will cause the policy check to fail. You can install the latest COSFS tool and mount it again.

**What should I do if an error such as "Input/Output ERROR" occurs when using the COSFS tool?**

Please follow the steps below to identify the cause of error.

1. Check whether the server can access the COS domain name normally.
2. Check whether the account is configured correctly.

After confirming that the above configurations are correct, open the `/var/log/messages` log file on the server and locate the log entry for s3fs, which can help you identify the cause of error. If the error persists, contact Tencent Cloud technical support team by submitting a ticket.

I've set auto-amounting at startup for COSFS using `/etc/fstab`, but the error "wrong fs type, bad option, bad superblock on cosfs" occurs when I run "mount -a". Why?

This error happens generally because the fuse library is missing on your server. It is recommended to install the fuse library by running the following command:

- CentOS
  
  ```bash
  sudo yum install fuse
  ```

- Ubuntu
  
  ```bash
  sudo apt-get install fuse
  ```

Is it normal to see a lot of 404 error codes in the system log `/var/log/messages`?

In the internal logic of COSFS, a HEAD request is used to determine whether the parent directory and the file exist, and the 404 error does not necessarily mean that the program is running erroneously.

Why does the file that I see in COS have a size of 0?

Generally, when you write data to COSFS, a file with a size of 0 will be first created in COS, and the data will be written to the local cache file. During the write process, the result of the mount point ls command shows the change in file size. When the file is closed, COSFS will upload the data written to the local cache file to COS. If the upload fails, you may only see a file with a size of 0, in which case you can try copying the failed file again.

Are the files in the COSFS cache directory the same as those in COS? Can I use them directly?

No. The files in the cache directory are used to accelerate reads and writes in COSFS and may include only a part of the files in COS.

I have copied a file to COSFS using the rsync command and the progress has reached 100%, but I only see a temporary file on the server. Why?
The rsync command creates a temporary file in the mounted directory. The 100% progress only means that the temporary file has been 100% written locally. After that, it will be uploaded to COS and then renamed and copied. Typically, it takes more time to copy data to a COSFS-mounted directory using the rsync command than using the cp command.

What should I do if COSFS uses up the disk capacity?

Uploads and downloads using COSFS involve disk file caching. When you upload or download a large file, if you don't specify the -oensure_diskfree=[size] parameter, the disk where the file is cached will be used up. You can use the -oensure_diskfree parameter to specify that when the remaining capacity of the disk is less than [size] MB, COSFS will minimize disk capacity usage (in MB). If you specify the -ouse_cache=[path] parameter, the cache file will be located in the path directory; otherwise, it will be in the /tmp directory.

For example, you can configure COSFS to reduce disk capacity usage when the remaining capacity is less than 10 GB by running the following command:

```
cosfs examplebucket-1250000000 /mnt/cosfs -ourl=http://cos.ap-guangzhou.myqcloud.com -odbglevel=info -oensure_diskfree=10240
```

What should I do if the error message "fuse: failed to open /dev/fuse: Operation not permitted" is displayed when I use docker to mount COSFS?

To start a docker image, you need to add the parameter --privileged.

Can I use a directory as a shared cache directory for multiple mount points?

It is not recommended that multiple mount points share a cache directory. The cache directory contains metadata used by COSFS, and sharing it may mess up the metadata.

What should I do if the error message "/bin/mount:unrecognized option --no-canonicalize" is displayed when I use COSFS for mounting?

Lower versions of the mounting tool do not support the --no-canonicalize option. Please update the tool. You are recommended to download v2.17 and then mount it again. The installation command is as follows:

```
tar -jxvf util-linux-ng-2.17.tar.bz2
cd util-linux-ng-2.17
./configure --prefix=/usr/local/util-linux-ng
make & & make install
mv /bin/mount{,.off}
ln -s /usr/local/util-linux-ng/bin/mount /bin
```
What should I do if mounting fails?

Step 1. Check whether the mounting command and the key configuration file are correct and whether the COS service is accessible based on the log files and error messages.

Step 2. Check whether the server time is correct by running the date command. If it is incorrect, correct it using the date command and then mount it again, such as `date -s '2014-12-25 12:34:56'`.

Is it normal that the time of a mounted directory changes to 1970-01-01 08:00 when I use the `ls -l --time-style=long-iso` command?

Yes. After you unmount the mount point, the time of the mounted directory will return back to the time before mounting.

Can a mounted directory be non-empty?

You can mount a non-empty directory using the -ononempty parameter, but you are not recommended to do so because a problem may occur when the mount point and the original directory have files with the same path.

Why does it take the ls command so long to return when I run it in a COSFS directory?

If there are a lot of files in a mounted directory, executing the ls command requires a HEAD operation on each file in the directory, so it takes a lot of time to read the directory system before the command returns. Note: You are recommended not to enable IO hung which may result in unnecessary restarts.
How do I enable the FTP feature?

COS is a persistent storage that supports Web-based requests but does not provide native FTP access. Intermediate transfer is required to use the FTP protocol. **It is recommended to set up your service by using the FTP Server tool provided by Tencent Cloud.**

As an outdated protocol, FTP protocol is unable to verify data integrity, ensure transfer security, or be integrated with the CAM system. Therefore, it is not recommended to use the FTP protocol for access, and Tencent Cloud will provide support for the FTP protocol and intermediate transfer software.

For data synchronization, it is recommended to use the COS Migration tool or the COSCMD tool.

What does the masquerade_address option in the configuration file do and when does it need to be configured?

If the FTP server runs in the PASSIVE mode (which is enabled generally when the FTP client is behind a NAT gateway) on a server with multiple ENIs, you need to bind a unique IP for response in PASSIVE mode using the masquerade_address option.

For example, an FTP server has multiple IPs. The private IP is 10.XXX.XXX.XXX, and the public IP is 123.XXX.XXX.XXX. The client connects to the FTP server via the public IP and using the PASSIVE mode. If the FTP server does not specify that the masquerade_address is bound to the public IP, the server may respond to the client via the private IP when it is in a PASSIVE mode. In this case, the client can connect to the FTP server, but cannot get any data response from the server.

If you need to configure masquerade_address, it is recommended to set it to the IP used by the client for connecting to the server.

After the masquerade_address option is correctly configured, I can log in to the FTP server normally, but when I run the FTP command for fetching data such as "list" or "get", the error "The server returns a non-routable address" or "ftp: connect: No route to host" occurs. How do I deal with it?

The most possible reason for this is the FTP server's iptables or firewall policy is configured to reject or drop all ICMP protocol packets. After receiving the data connection IP returned by the FTP server in the PASSIVE mode, the FTP client will send an ICMP packet first to verify the connectivity of the IP. In this case, the errors such as "The server returns a non-routable address" may occur.

Solution: Configure the iptables policy to only reject or drop the ICMP packet types you want to block. For example, if you only want to block the external ICMP packets of Ping type, you can change
the policy to: `iptables -A INPUT -p icmp --icmp-type 8 -s 0/0 -j [REJECT/DROP]`.
Alternatively, you can allow the IP of the client that will access the FTP server.

**Why is the uploaded part retained in COS when the upload of a large file is canceled halfway?**

The FTP server for the latest version of COS provides full streaming upload feature. When you upload a large file, the cancellation or disconnection of the upload will trigger the completion of upload. In this case, COS considers that your data stream has been uploaded and combines the uploaded data into a complete file. If you want to resume the upload, you can upload the file with the same name to overwrite the original one, or delete the incomplete file manually and upload the file again.

**Why does a limit on the size of file to be uploaded need to be set in the FTP server configuration?**

For a mulpart upload in COS, the maximum number of file chunks to be uploaded is 10,000, and the size of each file chunk is limited to 1 MB-5 GB. The purpose of imposing the limits is to reasonably calculate the size of a file chunk.

The FTP server supports uploading a single file less than 200 GB by default. But it is not recommended to set the limit to a too large value, because a larger file size limit will cause a larger buffer for file chunks during upload, thus increasing the consumption of your memory. Therefore, you are advised to set a reasonable file size limit as needed.

**What will happen if the size of a uploaded file exceeds the limit?**

If the size of the uploaded file exceeds the limit set in the configuration file, the system returns an IOError exception and marks the error message in the log.

If you have any other questions, [submit a ticket](cos_v5.log) attached with the complete cos_v5.log log.
What should I do if the following exception is thrown when I perform computing tasks: com.qcloud.cos.exception: CosServiceException: Reduce your request rate. (Status Code: 503; Error Code: SlowDown; Request ID: NWXXXXXXXXXX)?

As big data computing tasks usually read COS bucket data in parallel, they are likely to trigger a limit action on access frequency. By default, COS puts a 1,200 QPS limit on each account. To ensure your tasks run properly, we recommend you configure a greater value for `fs.cosn.maxRetries` to increase the maximum number COS can retry.

What should I do if the following exception is thrown when I perform computing tasks: java.net.ConnectException: Cannot assign requested address (connect failed) (state=42000, code=40000)?

Generally, when this exception occurs, you have established too many short TCP connections in a short period of time. After the connections are closed, local ports will enter a 60-second timeout period by default instead of being immediately repossessed. As a result, there is no available port during this period for your Client to establish a socket connection with the Server.

To fix this problem, you can modify the `/etc/sysctl.conf` file with changes to the following kernel parameters:

```
net.ipv4.tcp_timestamps = 1 #Enables support for TCP timestamp
net.ipv4.tcp_tw_reuse = 1 #Supports the use of a socket in the status of TIME_WAIT to new TCP connection
net.ipv4.tcp_tw_recycle = 1 #Enables quick repossession of a socket in the status of TIME_WAIT
net.ipv4.tcp_syncookies = 1 #Enables SYN Cookies. The default value is 0. When SYN waiting queue overflows, cookies are enabled to prevent a small number of SYN attacks.
net.ipv4.tcp_fin_timeout = 10 #Waiting time after the port is released.
net.ipv4.tcp_keepalive_time = 1200 #The interval for TCP to send KeepAlive messages. The default value is 2 hours. Change it to 20 minutes.
net.ipv4.ip_local_port_range = 1024 65000 #The range of ports for external connections. The default value is 32768 to 61000. Change it to 1024 to 65000.
net.ipv4.tcp_max_tw_buckets = 10240 #The maximum number (default: 180000) of sockets in TIME_WAIT status. Exceeding this number will directly release all the new TIME_WAIT sockets. You may consider reducing this parameter for a smaller number of sockets in TIME_WAIT status.
```
Does COS have a limit on the upload and download bandwidth?

No. The upload and download speed depends on your local bandwidth.

How can I directly preview a file in my browser without downloading it?

A bucket domain name in the format of `<BucketName-APPID>.cos.<Region>.myqcloud.com` is an XML domain name. As long as the file type can be directly previewed in your browser, you can preview the file in your browser by accessing the object link in this domain name format.

A bucket domain name in the format of `<BucketName-APPID>,<region>.myqcloud.com` is a JSON domain name. If you access the object link in this domain name format in your browser, a download window will pop up, and there are two ways to preview the file in the browser:

1. Upgrade your COS Console to the latest version and use the object link in the XML domain name format for access (strongly recommended).
2. Bind a custom domain name, enable static website, and access the file with the custom domain name. For more information, please see Domain Name Management for JSON and Static Website Settings for JSON.

Sample

Take the picture.jpg file in the root directory of the bucket examplebucket-1250000000 in Beijing for example:

- If the object address is in the format of `https://examplebucket-1250000000.cos.ap-beijing.myqcloud.com/picture.jpg`, you can directly access the address to preview the picture.jpg file in your browser.
- If the object address is in the format of `https://examplebucket-1250000000.cosbj.myqcloud.com/picture.jpg`, there are two ways to directly preview the object in your browser:
  i. Upgrade your COS Console to the latest version and use the object link in the XML domain name format for access (strongly recommended).
  ii. Bind a custom domain name, enable static website, and access the file with the custom domain name. For more information, please see Domain Name Management for JSON and Static Website Settings for JSON.

How can I directly download a file in my browser without previewing it?
You can set the value of the Content-Disposition parameter in the custom object headers to "attachment" in the console. For more information on how to do so in the console, please see Custom Headers.

You can also let your browser pop up a window for the file to be downloaded by setting the value of the request parameter response-content-disposition in the GET Object API to "attachment". For more information, please see GET Object.

To use the response-* parameter in a request, the request must be signed.

**How to determine if I am accessing COS over the private network?**

The access domain names of COS use intelligent domain name resolution, so that your requests to COS can be routed through the optimal linkage in case of cross-ISP access. If you deploy a service in Tencent Cloud to access COS, intra-region access requests will be automatically directed to a private network address. Cross-region requests do not support private network access for the time being and will be resolved to a public network address by default.

**How to identify private network access?**

In the same region, Tencent Cloud products automatically communicate with one another over the private network and no traffic fees will be incurred. Therefore, it is recommended to choose the same region for cost reduction when you purchase different Tencent Cloud products.

The following shows how to determine whether it is private network access:

For example, to determine whether CVM accesses COS over the private network, run the `nslookup` command on the CVM instance to resolve the COS domain name. If a private IP is returned, the access is over the private network; otherwise, it is over the public network.

Generally, a private IP address is in the format of 10.*.*.* or 100.*.*.*, while a VPC IP address 169.254.*.*.

If `examplebucket-1250000000.cos.ap-guangzhou.myqcloud.com` is the destination bucket address, the Address: 10.148.214.13 below it indicates that the access is over the private network.

```
nslookup examplebucket-1250000000.cos.ap-guangzhou.myqcloud.com

Server: 10.138.224.65
Address: 10.138.224.65 #53
```
Name: examplebucket-1250000000.cos.ap-guangzhou.myqcloud.com  
Address: 10.148.214.13
Name: examplebucket-1250000000.cos.ap-guangzhou.myqcloud.com  
Address: 10.148.214.14

For more information on private and public network access and connectivity testing, please see  
Private and Public Network Access.

For the private DNS server addresses of CVM, please see CVM Private Network Service.

There are differences between the private IP address of CPM and the IP address of CVM, which  
are generally in the format of 9.*.*.* or 10.*.*.*. If you have any questions, please submit  
a ticket for assistance.

How do I download a folder?
You can log in to the COSBrowser tool, select the folder to be downloaded, and click Download to  
download the folder or files in batches. You can also download the folder using the COSCMD tool. For  
more information, please see COSCMD Tool.

What should I do if the error "403 Forbidden" occurs or the access is denied  
when I perform upload/download and other operations?

Troubleshoot the problem by following the steps below:

1. Check whether the following configuration information is correct:  
   BucketName, APPID, Region, SecretId, SecretKey, etc.
2. If the above information is correct, check whether a sub-account is used for operation, and if yes,  
   check whether the sub-account has been authorized by the root account. If it hasn't yet, log in  
   using the root account to authorize the sub-account. For more information on authorization, please  
   see Cases of Access Permission Settings.
3. If a temporary key is used, check whether the current operation is in the policy set when the  
   temporary key is obtained, and if no, modify the relevant policy settings. For more information,  
   please see Temporary Key Generation and Usage Guide.
4. If the problem persists after all the above steps are completed, contact us by submitting a ticket.

How can I upload or download files in batches using COS?
COS allows you to perform batch operations on files through APIs or SDK. Plus, it offers the command  
line tool COSCMD and graphical program COSBrowser for batch operations.
When I upload a new file to the bucket where another file with the same name exists, will it be overwritten or will the new file be saved with a different version number?

The versioning feature is now available in COS. If versioning is not enabled for the bucket, when you upload a new file to the bucket where another file with the same name already exists, the latter will be directly overwritten; if versioning is enabled, multiple versions of the object will co-exist.

What is the lower limit of part size for multipart upload COS?

1 MB. For more information, please see Specifications and Limits.

When uploading a large file using multipart upload, can I change the signature to continue the multipart upload if the signature expires?

Yes.
FAQs About Deletion

What should I do if a bucket fails to be deleted in the console with an error message "The directory is not empty" or "Please delete the valid data in the bucket"?

1. Log in to the COS Console v5, go to the details page of the bucket to be deleted, and click Incomplete Uploads to delete the incomplete multipart uploads.
2. Return to the Bucket List and delete the bucket.

FAQs About Static Website

What should I do if an image cannot be displayed after I enable the static website feature?

Check the browser or CDN for cached data. You can use the curl and wget commands to avoid browser caching. If you use a CDN domain name, you can purge cache in the CDN Console.

What if I can't access the configured static website using a CDN domain name?

Check the configuration of the CDN-accelerated domain name by following the steps below.

1. Select "static website" for the origin server type.
2. Origin-pull authentication and CDN service authorization need to be set based on the bucket permission:
   - If the bucket permission is private-read, authorize the CDN service and enable origin-pull authentication.
   - If the bucket permission is public-read, there is no need to authorize the CDN service or enable origin-pull authentication.
3. CDN authentication needs to be set based on the bucket permission:
   a. If the bucket permission is private-read:
### FAQs About Cross-Origin Settings

**How do I configure the file headers in the bucket to return "Access-Control-Allow-Origin:*"?**
Set the origin to * when configuring cross-origin access. For more information, see Setting Cross-Origin Access.

**What should I do if the error message "get ETag error, please add "ETag" to CORS ExposeHeader setting." is displayed during an upload?**

Configure the cross-origin rule as shown below and try using a different browser to test whether it works. For more information, see Setting Cross-Origin Access.

![Add CORS Rule](image)

**What should I do if both COS and CDN are used but cross-origin access does not work in COS?**

If you're using a CDN-accelerated domain name, configure cross-origin access in the CDN Console. For more information, see Cross-domain Configurations.

**Is fuzzy match of origin supported in the cross-origin access configuration?**
The XML console v5 supports fuzzy match of second-level domain names. The JSON console v4 does not support second-level wildcard domain names.

FAQs About Custom Headers

Can object headers be customized in batches?
No.

FAQs About Origin-Pull Settings

What does an origin-pull address do?
An origin server address is used for data migration. If a requested resource does not exist in COS, it will be pulled from the origin-pull address in real time.

If no resource or directory from the origin-pull address exists in the COS when I configure origin-pull, will COS automatically create the directory when I access it for the first time?
Yes. COS will automatically pull and create the directory.

FAQs About Other Features

Does COS support setting callbacks such as creating thumbnails for each image uploaded and saving them to another bucket?
You can do this by using COS together with SCF. For more information, see Acquire Image on COS and Create a Thumbnail.

Does COS allow me to view the size of a folder?
COS allows you to view the number and size of objects in the current folder. For more information, see Viewing Folder Details.
FAQs About Keys

Where can I find the key information such as APPID, SecretId, and SecretKey?
The second half of a bucket name is the APPID. You can check it by logging in to the COS Console. To view SecretId and SecretKey, log in to the CAM Console and go to API Key Management.

How long is a temporary key valid for?
A temporary key is valid for 2 hours (7,200 seconds) at most. Requests made with an expired temporary key will be rejected. For more information, see Generating and Using Temporary Keys.

What should I do if the key information such as APPID and SecretId is leaked?
You can delete the leaked key and create a new one.

How do I generate a time-bound access link for private-read/write files?
For more information, see Generating and Using Temporary Keys. You can set the validity period for your key.

FAQs About ACLs and Policies

What should I do if the error "403 Forbidden" occurs or the access is denied when I perform upload/download and other operations?
Troubleshoot the problem by following the steps below:

1. Check whether the following configuration information is correct:
   BucketName, APPID, Region, SecretId, SecretKey, etc.
2. If the above information is correct, check whether a sub-account is used for operation, and if yes, check whether the sub-account has been authorized by the root account. If it hasn't yet, log in using the root account to authorize the sub-account.
   For more information on authorization, see Cases of Permission Settings.
3. If a temporary key is used, check whether the current operation is in the policy set when the temporary key is obtained, and if no, modify the relevant policy settings.
4. If the problem persists after all the above steps are completed, contact us by submitting a ticket.
When I access a public-read bucket using the its default domain name, the file list is returned. How can I hide the file list?

You can set the Get Bucket permission to deny anyone for the bucket by following the steps below:

Log in to the COS Console and click the bucket in the bucket list to enter its permission management page.

Method 1:

1. Locate Bucket Policy and click Graphic Settings > Add Policy.
2. Configure the permission as shown below and click **OK**.

![Add Policy](image)

**Method 2:**

Locate **Bucket Policy**, click **Policy Syntax > Edit**, and enter the following expression:

```
{
  "Statement": [
    {
      "Action": [
      }
```
Replace the information in "qcs::cos:ap-beijing:uid/1250000000:examplebucket-1250000000/*" as follows:

- Replace "ap-beijing" with the region where your bucket resides.
- Replace "1250000000" with your APPID.
- Replace "examplebucket-1250000000" with your bucket name.

The second half of the bucket name is the APPID. You can view it by logging in to the COS Console.

Are the ACL restrictions in COS imposed on buckets or accounts? Can I specify the permission when uploading files?

The ACL restrictions are imposed on accounts instead of buckets. It is not recommended to specify the permission when you upload files, because this may make the total number of ACLs and policies exceed 1,000 and thus cause an error.

How do I authorize a collaborator to access the specified bucket?

A collaborator account is a special sub-account. For more information, see Access Policy Language Overview.

Can I isolate permission by bucket or other factors if I have multiple businesses that need to perform operations on the same bucket?
Log in to the CAM Console and enter the user management page where you can enable sub-accounts for different businesses and grant them corresponding permission.

**What should I do if the error "your policy or acl has reached the limit (Status Code: 400; Error Code: PolicyFull)" occurs when I upload a file or create a bucket?**

The total number of ACLs and policies for buckets and objects under one root account in COS cannot exceed 1,000. When the limit is exceeded, this error will occur. It is recommended to delete the ACLs or policies that are no longer needed.

File-level ACLs or policies are not recommended. When you call APIs or SDKs, if you do not implement ACL control over files, please leave the ACL-related parameters (such as x-cos-acl and ACL) empty to inherit the bucket permission.

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**How do I create sub-accounts for subsidiaries or employees and grant them access to the specified buckets?**

For more information, see Granting Sub-accounts Access to COS.

**How do I authorize specific sub-accounts to only access a certain bucket?**

To grant a sub-account access to a specific bucket, you can add access paths for the sub-account. For more information, see Accessing Bucket List Using a Sub-account.

**How do I use account A to grant account B write access to the buckets under account A?**

For more information, see ACL Practices and Cloud Access Management Practices.

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**FAQs About Hotlink Protection**

**What should I do if hotlink protection configuration does not take effect when I enable CDN acceleration and use a CDN domain name to access resources?**

If you use a CDN-accelerated domain name to access resources, factors such as cache in CDN may affect the stability of hotlink protection in COS. You are recommended to log in to the CDN Console to configure hotlink protection. For more information, see Hotlink Protection Configuration.

**Can I set a whitelist to allow access and make a resource accessible when its link is opened in a browser?**
When setting hotlink protection, you can choose to allow empty referer, so that access will be allowed when a resource link is opened in a browser even if a whitelist is configured.

**The whitelist hotlink protection for the bucket "test" is set to allow access by a.com, but the web player at a.com cannot play video files in the bucket. What should I do?**

When you open a video link and use Windows Media Player, Flash Player, or other players to play the video on the webpage, referer in the request will be empty, leading to a miss in the whitelist. It is recommended to allow empty referer when setting the whitelist.

### FAQs About Encryption and Backup

**Does COS support file encryption?**

COS supports file encryption on the server side. For more information, see [Server-side Encryption Overview](#).

**Is data backup available in COS standard storage, standard_IA storage, and archive storage?**

COS data is stored at the underlying storage layer in multi-replica or erasure code mode. The distributed storage engines are distributed across multiple AZs in a region, thus ensuring a data reliability of 99.999999999%. The multi-replica and erasure code storage is based on underlying logic and imperceptible to users.

**Will a large number of requests to a bucket affect the access to other buckets under the same account?**

No, but a high request frequency will. For more information, see [Request Rate and Performance Optimization](#).
When a file is updated (re-uploaded or deleted) in COS, its cached content remains unchanged in CDN, resulting in inconsistency with the origin server. Can the cache in CDN be purged automatically when the file in COS is updated?

COS itself does not support automatically purging the cache in CDN. You can set up automatic purge in CDN with Serverless Cloud Function (SCF). For more information, see Using SCF to Automatically Refresh COS Resources Cached in CDN.

When I manage domain names in the console, I am always prompted to "Enable at least one available key". What should I do?

Log in to the CAM Console to check whether the TencentCloud API key is enabled.

- If no, create and enable a key before managing domain names.
- If yes and the error persists, check whether the account you are using is a sub-account (collaborator or sub-user):
  - If it is a sub-account, log in using the root account and confirm that the TencentCloud API key is enabled;
  - If it is a root account, refresh the browser cache and log in to the Tencent Cloud account again.

How do I access objects with my own domain name?

This can be achieved by binding a custom domain name. For more information, see Enabling Custom Accelerated Domain Name.

Does COS support HTTPS access?

Yes. COS allows SSL transfer for access nodes in all regions, and HTTPS is enabled by default in the SDK and console. You are strongly recommended to use HTTPS to protect the data linkage during transfer. If you use unencrypted HTTP, the linkage may be monitored or the data may be stolen.

Does COS support CDN origin-pull with HTTPS?

Yes.

Do I have to obtain an ICP filing for my custom domain name through Tencent Cloud?
Currently, CDN has to be enabled before COS can use a custom domain name. Please note the following points based on your actual situation:

- If your domain name is connected to a CDN node in Mainland China, you need to obtain an ICP filing for it. However, you are not required to do so through Tencent Cloud, and it is okay as long as your domain name has obtained the ICP filing.
- If your domain name is connected to a CDN node outside Mainland China, you don't need to obtain an ICP filing for it.

**How do I generate a temporary URL for a file in COS?**

For directions, see [Download via Pre-Signed URL](#).

**Can I access private-read buckets via CDN acceleration?**

Yes, but you need to be authorized with relevant configurations first. For more information, see [Private-Read Bucket](#) in the CDN Acceleration Overview document.

**After the origin server is changed in the CDN Console, why does the original custom domain name disappear in the COS Console?**

If you use the COS Console v5 configured with a JSON domain name, the console cannot display the new domain name.

Check whether the JSON domain name is configured in your bucket, and if yes, modify the JSON domain name to an XML domain name.

**Can I access the Global Content Delivery (GCD) platform using a domain name without an ICP filing?**

ICP filing is not required for GCD. However, it should be noted that your data and operations in Tencent Cloud should comply with local laws and regulations as well as [Tencent Cloud Terms of Service](#).

**Can Global Content Delivery (GCD) be used to accelerate COS in Mainland China?**

Yes. However, for national policy reasons, GCD can pull data in Mainland China and users in Mainland China can access global nodes only over public ISP networks, which means that the access may be slow or fail. Therefore, you are recommended to use the URL prefetch feature of GCD to cache hotspot files in advance.