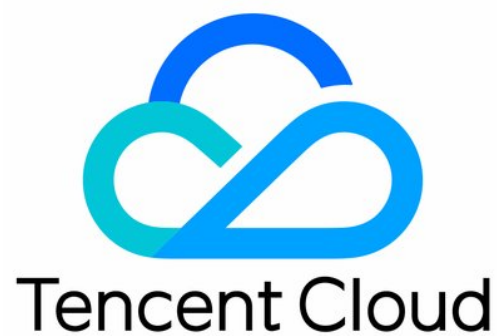


Cloud Object Storage

Product Introduction

Product Documentation



Copyright Notice

©2013-2022 Tencent Cloud. All rights reserved.

Copyright in this document is exclusively owned by Tencent Cloud. You must not reproduce, modify, copy or distribute in any way, in whole or in part, the contents of this document without Tencent Cloud's the prior written consent.

Trademark Notice



All trademarks associated with Tencent Cloud and its services are owned by Tencent Cloud Computing (Beijing) Company Limited and its affiliated companies. Trademarks of third parties referred to in this document are owned by their respective proprietors.

Service Statement

This document is intended to provide users with general information about Tencent Cloud's products and services only and does not form part of Tencent Cloud's terms and conditions. Tencent Cloud's products or services are subject to change. Specific products and services and the standards applicable to them are exclusively provided for in Tencent Cloud's applicable terms and conditions.

Contents

Product Introduction

Overview

Feature Overview

Strengths

Concepts

Regions and Access Endpoints

Specifications and Limits

Product Introduction

Overview

Last updated : 2022-08-04 15:47:47

Cloud Object Storage (COS) is a powerful Tencent Cloud distributed storage service that features low costs and high scalability, reliability, and security. It enables you to store a high number of files and view them in the cloud anytime.

You can easily and quickly access COS via the user-friendly web console, APIs, SDKs, or tools to upload, download, and manage massive amounts of data files in different formats. You can also leverage CDN nodes around the globe to accelerate COS file downloads.

Product Features

COS provides both enterprises and individual users with a suite of features, including data management, remote disaster recovery, data access acceleration, and data processing for diverse use cases. For more information, see [Features](#).

Concepts

This section describes key concepts that help you better understand COS.

- **Bucket:** A container for objects stored in COS. Each bucket can store an unlimited number of objects.
- **Object:** The basic unit of COS storage. It can be data in any format, such as image, document, audio, and video.
- **Region:** A physical location where data centers are hosted in Tencent Cloud. COS data is stored in the buckets in these regions.
- **Endpoint:** A COS endpoint used to access and download an object stored in a bucket.
- **Storage class:** A storage level that indicates how active objects are in COS. COS offers multiple storage classes, including STANDARD, STANDARD_IA, INTELLIGENT TIERING, ARCHIVE, and DEEP ARCHIVE. Different storage classes are suitable for different use cases and have different attributes, such as object access frequency and access latency.

Getting Started with COS

Getting started

COS offers various tools and video tutorials to help you better understand and use its services.

How to use

The table below describes different options available for you to get started with COS:

| Option | Description |
|----------------------------|--|
| Console | The COS console is the easiest way to get started with COS without using any code or programs. |
| COSBrowser | This tool provides user-friendly UIs for you to easily upload and download objects and generate access URLs. |
| COSCMD | This tool enables you to use simple commands to upload, download, and delete objects in batches. |
| API | COS adopts XML APIs, which are lightweight, connectionless, and stateless. By calling XML APIs, you can send requests to and accept responses from COS directly over HTTP/HTTPS. |
| SDK | COS offers SDKs for mainstream platforms and programming languages such as Android, C, C++, .NET, Go, iOS, Java, JavaScript, Node.js, PHP, Python, and WeChat Mini Program. |

COS Billing

COS is billed on a pay-as-you-go basis by default. For more information, see [Billing Overview](#).

References

For other relevant documents, see [Developer Guide](#).

Feature Overview

Last updated : 2022-11-01 12:25:20

COS offers the following features:

Operations

| Feature | Description |
|-------------------|--|
| Bucket operations | With COS, you can create, query, delete, and empty buckets. For detailed directions, see Creating Bucket . |
| Object operations | Storage classes. You can choose a storage class from INTELLIGENT TIERING, STANDARD, STANDARD_IA, ARCHIVE, or DEEP ARCHIVE provided by COS according to the access frequency and disaster recovery degree of your objects. For more information, see Overview . Objects/Folders: Can be uploaded, queried, downloaded, copied, and deleted. For detailed directions, see Uploading Objects . |

Data Management

| Feature | Description |
|--------------------|---|
| Lifecycle | With COS, you can set rules that will allow you to automatically delete an object or transition it between storage classes after a specified number of days. For more information, see Lifecycle Overview . |
| Static website | You can configure a bucket to host a static website and access the static website through the bucket's endpoint. For more information, see Static Website Hosting . |
| Inventory | COS allows you to configure an inventory job to regularly scan your bucket for specified objects or objects with the same prefix. You can perform these jobs daily or weekly, and each job will output an inventory report, which is stored in the specified bucket as a CSV file. For more information, see Inventory Overview . |
| Bucket tagging | A bucket tag can be used for easier bucket grouping and management. You can set, query, and delete tags for a specified bucket. For more information, see Bucket Tag Overview . |
| Event notification | Used in conjunction with the Serverless Cloud Function (SCF), COS can send you timely notifications about resource changes (such as new file upload and file deletion). For more information, see Event Notifications . |

| | |
|----------------|---|
| COS Select | This feature uses Structured Query Language (SQL) statements to filter the objects stored in COS so as to extract specific objects and get desired data. With COS Select, you can reduce the amount of data transferred by COS for lower costs and latency during data extraction. For more information, see SELECT Overview . |
| Logging | This feature is used to log the access details of a source bucket; these logs are then stored in a destination bucket for better bucket management. For more information, see Logging Overview . |
| Object tagging | This feature is designed to help group and manage objects in your bucket by adding a key-value pair as an object tag. An object tag consists of a `tagKey`, an equal sign `=`, and a `tagValue`, for example, `group = IT`. You can set, query, and delete tags for a specified object. For more information, see Object Tag Overview . |
| CSG | Cloud Storage Gateway (CSG) is a hybrid cloud storage service provided by Tencent Cloud. You can configure a CSG instance for a bucket in COS, and then the bucket can be mounted to any of your CVM instances as a storage device in the form of a network folder. For more information, see Setting CSG . |

Remote Disaster Recovery

| Feature | Description |
|--------------------------|--|
| Versioning | Enabling versioning allows you to store multiple versions of an object in the same bucket. You can query, delete, or restore the objects by version ID. Versioning enables you to recover data that was lost due to accidental deletion or application failure. For more information, see Overview . |
| Cross-bucket replication | By configuring a cross-bucket replication rule, incremental objects can be automatically and asynchronously replicated between buckets for disaster recovery and data backup. For more information, see Overview . |
| Cloud database backup | Cloud database backup is a database backup feature provided by COS based on SCF. It helps you transfer backup files in TencentDB to COS for persistent storage to avoid data loss or corruption. For more information, see MySQL Data Backup . |

Data Security

| Feature | Description |
|------------|--|
| Encryption | COS can apply an object-level encryption policy to your data before it is written to the disk, |

| | |
|--------------------|--|
| | and automatically decrypt it when it is accessed. For more information, see Server-Side Encryption Overview and Bucket Encryption Overview . |
| Hotlink protection | COS supports configuring hotlink protection. You can configure a blocklist/allowlist through the hotlink protection feature in the console to protect your data resources. For more information, see Hotlink Protection Practice . |

Access Management

| Feature | Description |
|----------------|---|
| CORS | With COS, you can set HTML5 CORS configurations to enable access among different origins. COS can respond to CORS OPTIONS requests and return specified rules to the browser as configured by you. For detailed directions, see Setting CORS . |
| Origin-pull | COS allows you to set an origin-pull rule on your bucket so that it can pull data from an external origin if the requested object does not exist in your bucket, or a specific request needs to be redirected. For more information, see Setting Origin-Pull . |
| Bucket policy | You can add a policy to a bucket to grant or deny an account or source IP (or IP range) access permission for a COS resource. For more information, see Adding Bucket Policy . |
| Access control | You can manage the access permissions for your buckets and objects by configuring an Access Control List (ACL). When receiving a resource request, COS will check the ACL to determine whether the requester has the required access permission. For more information, see Basic Concepts of Access Control and Granting Sub-accounts Access to COS . |

Access Speed

| Feature | Description |
|-----------------------------------|--|
| CDN acceleration | COS has integrated the CDN acceleration feature to download and deliver large amounts of data from COS buckets. It is most useful in scenarios where the same data is downloaded repeatedly. For more information, see CDN Acceleration Overview . |
| Global acceleration | The COS global acceleration feature can help you quickly access your buckets and improve your access success rate, further improving business stability as well as the overall user experience. For more information, see Overview . |
| Single-connection bandwidth limit | COS supports traffic control for file uploads and downloads to guarantee a normal network bandwidth for your other applications. For more information, see Single-Connection Bandwidth Limit . |

Batch Job Processing

| Feature | Description |
|-----------------|---|
| Batch operation | You can specify an operation to be performed on a specified list of objects in a bucket. This involves generating an inventory of objects through the inventory feature to serve as the specified object list, or you can record the objects to be processed in a CSV file according to inventory file formatting requirements. Then, COS will perform the specified batch operation on the objects in the inventory file. For more information, see Overview . |

Data Monitoring

| Feature | Description |
|------------------------|--|
| Monitoring and alarms | COS statistics such as read and write requests and traffic are collected and displayed based on CM . You can view detailed monitoring data of COS in the CM console . For more information, see Monitoring and Alarms . |
| Dashboard | COS supports data monitoring, with which you can view the amount of data stored in different storage classes by different periods, as well as the trends. For more information, see Viewing Statistics and Querying Monitoring Data . |
| Setting alarm policies | You can leverage the alarm policy feature of Cloud Monitor to set threshold-reaching alarms for COS monitoring metrics. An alarm policy must include the policy name, policy type, trigger condition, alarm object, and alarm notification template. For more information, see Setting Alarm Polices . |

Data Processing

| Feature | Description |
|------------------|---|
| Image processing | COS is integrated with Cloud Infinite professional integrated media solution to offer various features such as image processing, moderation, and recognition. You can process media data through the upload and processing APIs of COS. For more information, see Image Processing Overview . In addition, COS supports image advanced compression and blind watermarking. For more information, see Image Compression Overview and Blind Watermarking Overview . |
| File preview | File preview is based on CI. After it is enabled, document files in buckets can be previewed online directly without download. For more information, see File Preview Overview . |
| | |

| | |
|--------------------|---|
| Media processing | Media processing is a multimedia file processing service provided by COS based on CI. It offers diverse features empowered by Tencent Cloud's cutting-edge AI technology, such as audio/video transcoding, video frame capturing, audio/video splicing, video-to-animated image conversion, video metadata query, and intelligent thumbnail. For more information, see Media Processing Overview and Overview . |
| Speech recognition | Speech recognition is based on CI. Once enabled, it recognizes recording files in buckets and asynchronously returns recognized text. For more information, see Speech Recognition Overview . |

Data Moderation

| Feature | Description |
|--------------------|---|
| Content moderation | The COS content moderation service intelligently moderates the multimedia content of images, videos, speeches, and text. It helps you effectively identify non-compliant content such as pornographic, vulgar, violent, terrorist, illegal, disgusting, and offensive information to avoid operational risks. For more information, see Content Moderation Overview . |

Application Integration

| Feature | Description |
|-----------------------|---|
| CKafka message backup | CKafka message backup is provided by COS based on SCF to dump CKafka messages to COS, which facilitates data analysis and download. For more information, see CKafka Message Backup . |
| TDMQ message backup | TDMQ message backup is provided by COS based on SCF to dump TDMQ messages to COS, which facilitates data analysis and download. For more information, see TDMQ Message Backup . |
| CDN log backup | The CDN log backup feature is provided by COS based on SCF to dump CDN logs to COS, which facilitates access behavior analysis and service quality monitoring. For more information, see CDN Log Backup . |
| Log cleansing | Log cleansing is a log file processing solution provided by COS based on SCF. After it is enabled or you upload log files on your own, the function preconfigured by COS will be automatically triggered to filter and cleanse log content according to the preset SQL search statements. For more information, see Log Cleansing . |
| File decompression | The file decompression feature is a data processing solution provided through SCF. Once enabled, when a compressed file is uploaded to COS, SCF will be triggered automatically to |

| | |
|-------------------|---|
| | decompress the file into the specified directory and bucket. For more information, see Setting File Decompression . |
| CDN cache purging | This COS feature is provided through SCF to help you automatically purge data that is cached on CDN edge nodes. For more information, see Setting CDN Cache Purge . |

Tools

| Feature | Description |
|------------------|---|
| Management tools | COS provides a suite of tools such as COSBrowser, COSCMD, and COS Migration to help manage and/or migrate data. For more information, see Tool Overview . |

API/SDK

| Feature | Description |
|---------------|--|
| APIs and SDKs | <ul style="list-style-type: none">• APIs: COS provides a rich set of APIs and API-specific documentation that describes API usage, parameters, sample requests, responses, and error codes. For more information, see Operation List.• SDKs: COS offers SDKs for various programming languages, including Android, C, C++, .NET, Go, iOS, Java, JavaScript, Node.js, PHP, Python, and WeChat Mini Programs. For more information, see SDK Overview. |

Supported Protocols

| Feature | Description |
|-------------------|--|
| Various protocols | COS supports HTTP 1.0, HTTP 1.1 transfer protocols. It also supports TLS 1.0, TLS 1.1, and TLS 1.2 encryption protocols. |

Strengths

Last updated : 2022-04-28 14:49:08

Stability and Durability

COS stores data in a cross-infrastructure, multi-device, and redundant manner, provides remote disaster recovery and resource isolation capabilities for your data. It delivers an up to 99.999999999% durability for each object, ensuring that your data is more durable than on other storage architectures.

High Security and Reliability

COS features hotlink protection that can block access requests from malicious sources. It supports SSL-based encrypted data transfer and allows you to control the read and write permissions of each individual file. With the aid of Tencent's attack defense system, it can effectively resist DDoS and CC attacks to ensure normal operations of your business.

Optimal Cost Performance

COS eliminates your need to purchase, deploy, and maintain traditional hardware devices, thereby reducing your Ops workload and hardware hosting costs. It supports on-demand and pay-as-you-go usage, so you do not need to pay for any reserved storage space in advance. Moreover, it can transition cold data through lifecycle management to further reduce the storage costs.

Ease of Use

COS provides graphical programs, command line tools, protocol tools, and other methods for you to perform batch operations on stored objects, making it easier for you to use. It also offers tools that can mount buckets locally, enabling you to directly operate on objects stored in COS just like in a local file system.

Convenient Access

COS provides a wealth of simple and reliable SDK access tools and a detailed RESTful API access guide, which can help you easily transfer data over the internet. It also offers seamless migration tools to migrate your business to the cloud with speed and ease, saving you from high migration and access costs.

Service Integration

COS can be integrated with other Tencent Cloud services, such as CDN, CI, audio/video transcoding, file preview, and other components, to provide a fully integrated solution for storage and processing. In addition, it can be used as a data pool in big data computing to provide data sources for big data analysis and computation. It can also be connected to SCF to automate event notification and processing.

Concepts

Last updated : 2022-05-04 14:38:14

Bucket

A bucket is an entity for objects, which can be considered as a "container" for stored objects. You can manage buckets and configure their attributes through various methods such as the Tencent Cloud console, APIs, and SDKs. For example, you can configure a bucket for static website hosting or access permission.

For more information, see [Bucket Overview](#).

Object

An object is the basic unit of COS and is stored in a bucket just like a photo stored in an album. You can manage objects in different ways including Tencent Cloud console, APIs, and SDKs. An object is named in the format of `<objectkey>` in API and SDK examples.

For more information, see [Object Overview](#).

APPID

APPID is an application ID which you get after you successfully signed up to Tencent Cloud, and which has a unique one-to-one correspondence with your account ID. It is automatically assigned to you as a permanent unique ID, which can be viewed in [Account Information](#).

APPID is usually used in bucket names in a format of "custom string-APPID", for example, `examplebucket-1250000000`.

UID

APPID is also used to generate temporary keys, specify bucket policies, or specify a resource range for policy configuration in CAM. In these cases, APPID is also referred to as UID that shares the same value as APPID.

For more information, see [Bucket Overview](#), [Access Policy Language Overview](#), and [Resource Description Method](#).

UIN

Account ID, a permanent unique ID that has a unique one-to-one correspondence with your APPID, and can be viewed in [Account Information](#). In COS services, it is used to generate temporary keys, specify bucket policies, or specify a resource range for policy configuration in CAM, in ways similar to those for UID, but with a notable difference in their prefixes.

For more information, see [Access Policy Language Overview](#) and [Resource Description Method](#).

ACL

An access control list (ACL) is a resource-based option for access management, and is used to describe an access permission action.

In COS, you can use ACLs to manage the access to your buckets and objects by granting Read and Write permissions to other root accounts, sub-accounts, and user groups.

For more information, see [Basic Concepts of Access Control](#) and [ACL Overview](#).

CORS

Cross-Origin Resource Sharing (CORS), which means that a resource in one domain initiates an HTTP request to a resource from another domain.

SecretKey

SecretId and SecretKey are collectively referred to as cloud API key, which is the security credential used for authentication when a user accesses a Tencent Cloud API, and obtained in [API Key Management](#). SecretKey is the key used to encrypt the signature string and the server-side authentication signature string. Multiple cloud API keys can be created under an APPID.

SecretId

SecretId and SecretKey are collectively referred to as the cloud API key, which is the security credential used for authentication when a user accesses a Tencent Cloud API, and obtained in [API Key Management](#). SecretId is used to identify the API caller. Multiple cloud API keys can be created under an APPID.

Policy

A policy is comprised of several elements used to describe permission details. For more information, see [Access Policy Language Overview](#).

Public network downstream traffic

Traffic of data transfer from COS to a client over the internet. It includes the traffic generated when you download objects using object URLs or browse objects through your static website origin.

CDN origin-pull traffic

Traffic generated by data transfer from COS to Tencent Cloud CDN edge node

Default domain name

Domain name of COS origin. It is automatically generated based on your bucket name and region when you create a bucket, and should be distinguished from the default acceleration domain name. For more information, see [Domain Name Management Overview](#).

Default CDN acceleration domain name

A domain name accelerated by CDN cache nodes. It is generated by default, and you can choose to enable or disable it. For more information, see [Domain Name Management Overview](#).

Custom CDN acceleration domain name

A custom domain name that you bind for your bucket to the Tencent Cloud CDN acceleration platform, and use to access objects in your bucket. For more information, see [Domain Name Management Overview](#).

Custom origin domain name

A custom domain name that you bind to your bucket and use to access objects in it. For more information, see [Domain Name Management Overview](#).

Data retrieval

STANDARD_IA and ARCHIVE are two COS storage classes that store cold data. To read or download infrequently-accessed data, COS needs to retrieve it first. Archived data cannot be read or downloaded until you unfreeze (retrieve) it, that is, restore it to STANDARD storage class first.

Region

A region where Tencent Cloud data centers are hosted, and where you store your COS data in your bucket.

For more information, see [Regions and Access Endpoints](#).

Regions and Access Endpoints

Last updated : 2022-09-29 10:07:05

Overview

A **region** is an area where a Tencent Cloud managed data center is deployed. COS data is stored in buckets in these regions. You can use COS to store your data in multiple regions. In general, you are advised to create buckets in the region closest to the location where your business is conducted. In this way, latency and costs can be reduced and compliance requirements can be met.

For example, if your business is distributed in South China, creating buckets in the Guangzhou region can accelerate the object upload and download speeds.

Default endpoint refers to the COS bucket's default domain, which is automatically generated when the bucket is created. Buckets residing in different regions have different default domains. To view the default domain, you can go to the [COS console](#), click the name of the desired bucket, click **Overview**, and find the **Domain Information** area.

Chinese mainland

| Region | | Region Abbreviation | Default Endpoint (Upload/Download/Management) |
|------------------|----------------------|---------------------------|--|
| Chinese mainland | Public cloud regions | Beijing Zone 1 (sold out) | <BucketName-APPID>.cos.ap-beijing-1.myqcloud.com |
| | | Beijing | <BucketName-APPID>.cos.ap-beijing.myqcloud.com |
| | | Nanjing | <BucketName-APPID>.cos.ap-nanjing.myqcloud.com |
| | | Shanghai | <BucketName-APPID>.cos.ap-shanghai.myqcloud.com |
| | | Guangzhou | <BucketName-APPID>.cos.ap-guangzhou.myqcloud.com |
| | | Chengdu | <BucketName-APPID>.cos.ap-chengdu.myqcloud.com |
| | | Chongqing | <BucketName-APPID>.cos.ap-chongqing.myqcloud.com |

Outside Chinese mainland

| Region | | Region Abbreviation | Default Endpoint (Upload/Download/Management) |
|---------------|----------------------|--------------------------|--|
| Asia Pacific | Public cloud regions | Hong Kong (China) | ap-hongkong <BucketName-APPID>.cos.ap-hongkong.myqcloud.com |
| | | Singapore | ap-singapore <BucketName-APPID>.cos.ap-singapore.myqcloud.com |
| | | Mumbai | ap-mumbai <BucketName-APPID>.cos.ap-mumbai.myqcloud.com |
| | | Jakarta | ap-jakarta <BucketName-APPID>.cos.ap-jakarta.myqcloud.com |
| | | Seoul | ap-seoul <BucketName-APPID>.cos.ap-seoul.myqcloud.com |
| | | Bangkok | ap-bangkok <BucketName-APPID>.cos.ap-bangkok.myqcloud.com |
| | | Tokyo | ap-tokyo <BucketName-APPID>.cos.ap-tokyo.myqcloud.com |
| North America | Public cloud regions | Silicon Valley (US West) | na-siliconvalley <BucketName-APPID>.cos.na-siliconvalley.myqcloud.com |
| | | Virginia (US East) | na-ashburn <BucketName-APPID>.cos.na-ashburn.myqcloud.com |
| | | Toronto | na-toronto <BucketName-APPID>.cos.na-toronto.myqcloud.com |
| South America | Public cloud regions | São Paulo | sa-saopaulo <BucketName-APPID>.cos.sa-saopaulo.myqcloud.com |
| Europe | | Frankfurt | eu-frankfurt <BucketName-APPID>.cos.eu-frankfurt.myqcloud.com |
| | | Moscow | eu-moscow <BucketName-APPID>.cos.eu-moscow.myqcloud.com |

Global acceleration endpoint

A global acceleration endpoint is formatted as <BucketName-APPID>. `cos.accelerate.myqcloud.com` . For more information about global acceleration endpoints and the use cases, see [Overview](#).

Example

Assume that you have logged in to the COS console as the root account (`APPID` is `1250000000`) and created a bucket named **examplebucket** in the **Guangzhou** region, the default endpoint of the bucket will be:

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

Note :

- `examplebucket-1250000000`: indicates that the bucket is owned by the user whose `APPID` is `1250000000` . `APPID` is a fixed and unique ID assigned by the system when you successfully applied for the Tencent Cloud account. You can view it at [Account Information](#).
- `cos`: Cloud Object Storage (COS)
- `ap-guangzhou`: abbreviation of the bucket region
- `myqcloud.com`: indicates Tencent Cloud domain (fixed)

If you store an image (picture.jpg) to the created bucket, the access URL of the image will be:

```
examplebucket-1250000000.cos.ap-guangzhou.myqcloud.com/picture.jpg
```

Note :

If you have set the access permission of your image to **public read and private write**, you can copy the image access URL and paste it in the browser to view the image details.

Private Network and Public Network Access

If an intra-region Cloud Virtual Machine (CVM) instance accesses COS using the default domain, data will be transferred over a private network by default. In this case, data uploads and downloads will generate private network traffic, but this traffic will not be billed. However, note that you will still be charged for the number of requests.

Tencent Cloud COS adopts intelligent resolution for COS endpoints. In this way, the optimal linkage can be provided for you to access COS with different ISPs.

If you deploy a service in Tencent Cloud to access COS, intra-region access requests will be automatically directed to a private network address. Currently, cross-region requests do not support private network access and will be resolved to a public network address by default. If you have requests for cross-region private network access, [submit a ticket](#).

For more information about private network and public network access, see [Request Creation Overview](#).

Specifications and Limits

Last updated : 2022-11-11 14:38:32

| Category | Specifications and Limits | Description |
|---------------|----------------------------|---|
| QPS | Limits | <ul style="list-style-type: none"> Read/Write requests: 30,000 QPS for each bucket in a public cloud region in the Chinese mainland, or 3,000 QPS for each bucket in other regions. LIST requests: 1,000 QPS for all regions. Data retrieval requests: 100 QPS for all regions. Single-file upload/deletion/listing requests for traffic throttling: 50 QPS. Single-file download requests for traffic throttling: 1,000 QPS. <p>To raise your QPS threshold, see Request Rate and Performance Optimization.</p> |
| Bandwidth | Limits | <p>15 Gbps of upstream and downstream bandwidth for each bucket in a public cloud region in the Chinese mainland, or 10 Gbps for each bucket in other regions. If this threshold is reached, traffic throttling will be requested. To raise the threshold, submit a ticket.</p> |
| Storage class | STANDARD limits | <p>Billing limits: There are no limits on storage duration or object size. For STANDARD pricing, see Pricing Cloud Object Storage.</p> |
| | STANDARD_IA limits | <p>Billing limits:</p> <ul style="list-style-type: none"> An object stored less than 30 days is billed as 30 days. An object smaller than 64 KB is billed as 64 KB. A larger object is billed based on its actual size. <p>For STANDARD_IA pricing, see Pricing Cloud Object Storage.</p> |
| | INTELLIGENT TIERING limits | <p>Billing limits: An object smaller than 64 KB is always stored in the frequent access tier. Objects are billed based on their actual sizes. For INTELLIGENT TIERING pricing, see Pricing Cloud Object Storage.</p> |
| | ARCHIVE limits | <p>Billing limits:</p> <ul style="list-style-type: none"> An object stored less than 90 days is billed as 90 days. An object smaller than 64 KB is billed as 64 KB. A larger object is billed based on its actual size. <p>For ARCHIVE pricing, see Pricing Cloud Object Storage.</p> |
| | DEEP ARCHIVE limits | <p>Billing limits:</p> <ul style="list-style-type: none"> An object stored less than 180 days is billed as 180 days. An object smaller than 64 KB is billed as 64 KB. A larger object is billed based on its actual size. |

| | | |
|--------|-----------------------|--|
| | | For DEEP ARCHIVE pricing, see Pricing Cloud Object Storage . |
| Bucket | Limits | <ul style="list-style-type: none"> Once a bucket is created, you cannot modify its name or region. Buckets must have unique names under the same account and cannot be renamed. A bucket name cannot start with a hyphen and can contain only lowercase letters, digits, and hyphens. The length of a bucket name is limited by the number of characters in the region abbreviation as described in Regions and Access Endpoints and `APPID`. A complete request domain name can contain up to 60 characters. |
| | Number of buckets | Each root account can have up to 200 buckets by default. |
| | Number of objects | There is no limit on the number of objects stored in each bucket. |
| | Number of bucket tags | Each bucket can have up to 50 different tags. |
| Object | Limits | An object key can be 1–850 bytes. For more information, see Object Overview . |
| | Upload | <ul style="list-style-type: none"> A single object to be uploaded in the console can be up to 512 GB. A single object to be uploaded through an API/SDK can be up to 48.82 TB (50,000 GB). <p>Upload API specifications:</p> <ul style="list-style-type: none"> Simple upload: A single object can be up to 5 GB. For more information, see Simple Upload. Multipart upload: A single object can be up to 48.82 TB. The part size can be 1 MB–5 GB, but the last part can be smaller than 1 MB. There can be 1–10,000 parts. For more information, see Multipart Upload. <ul style="list-style-type: none"> You can only upload objects to the INTELLIGENT TIERING storage class if you have enabled INTELLIGENT TIERING for the bucket. How objects are transitioned between tiers depends on the INTELLIGENT TIERING configuration. |
| | Replication | <ul style="list-style-type: none"> Objects can be replicated within and across regions under the same account. Intra-region replication is free of charge, while cross-region replication incurs traffic fees. For more information, see Pricing Cloud Object Storage. Copy APIs specifications: <ul style="list-style-type: none"> Simple copy: A single object to be copied can be up to 5 GB. For more information, see Simple Copy. If an object is larger than 5 GB, you must use multipart copy. A single object to be copied can be up to 48.82 TB. For more information, see |

| | | |
|---------------------|--------------------------|--|
| | | <p>Multipart Copy.</p> <ul style="list-style-type: none"> Currently, you cannot copy STANDARD, STANDARD_IA, or INTELLIGENT TIERING objects to the INTELLIGENT TIERING storage class. |
| | Batch deletion | Up to 1,000 objects can be deleted in a single request through APIs/SDKs. |
| | Number of object tags | Each object can have up to 10 different tags. |
| Access policy | Number of ACLs | Each root account (APPID) can have up to 1,000 bucket ACLs. |
| Lifecycle | Number of rules | Each bucket can have up to 1,000 lifecycle rules. |
| | Storage class transition | STANDARD to STANDARD_IA: At least 1 day. STANDARD/STANDARD_IA to ARCHIVE/DEEP ARCHIVE: At least 1 day. Note: 1. Objects smaller than 64 KB will not be transitioned. |
| | Expired object deletion | STANDARD/STANDARD_IA/ARCHIVE: At least 1 day. |
| SDKs | | 12 SDKs: Android, C, C++, .NET, Go, iOS, Java, JavaScript, Node.js, PHP, Python, WeChat Mini Program. |
| API reserved fields | | All API fields involved in the API documentation are COS reserved fields, including: acl, uploads, policy, cors, delete, versions, location, referer, lifecycle, versioning, notification, replication, website, logging, tagging, accelerate, domain, inventory, origin, object-lock, live, encryption, intelligenttiering, symlink. |