

# Cloud Object Storage Product Introduction Product Documentation





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# Product Introduction Overview

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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 massive number of files and view them on the cloud anytime.

You can easily and quickly access COS via the console, APIs, SDKs, or tools to store and manage massive data. You can leverage COS's user-friendly web management interface to upload, download, and manage files in different formats. CDN nodes around the globe also boost your file download speed.

### **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 MAZ\_STANDARD, MAZ\_STANDARD\_IA, MAZ\_INTELLIGENT TIERING, 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. For more information, see Cloud Object Storage.

### How to use

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

Method	Description
Console	The COS console is the easiest way to work with COS without using any code or programs
COSBrowser	Provides a user-friendly interface to easily upload and download objects and generate access URLs
COSCMD	Enables you to use simple commands to upload, download, and delete objects in batches
APIs	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.
SDKs	Supports multiple mainstream programming languages including Android, C, C++, .NET, Go, iOS, Java, JavaScript, Node.js, PHP, Python, and WeChat Mini Program

# How Is COS Billed?

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

# Features

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COS offers the following features:

# Operations

Feature	Description
Bucket operations	With COS, you can create, query, delete, and empty buckets. For detailed directions, see Bucket Management.
Object operations	Storage classes: Currently, COS offers three object storage classes for different access frequencies and disaster recovery levels: MAZ_STANDARD, MAZ_STANDARD_IA, INTELLIGENT_TIERING, STANDARD, STANDARD_IA, ARCHIVE, and DEEP ARCHIVE. For more information, see Storage Class.Objects/folders: can be uploaded, queried, downloaded, copied, and deleted. For more information, see Object Management.

# Data Management

Feature	Description
Lifecycle	With COS, you can set lifecycle rules for objects to regularly perform automatic deletion on an object or storage class transitioning. 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 task to regularly scan your bucket for specified objects or objects with the same prefix. You can perform these tasks daily or weekly, and each task 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 when a new file has been uploaded or deleted). 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.
Number of object tags	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 Tagging 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 Versioning 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 Cross-Bucket Replication Overview.
Multi-AZ	MAZ refers to the multi-AZ storage architecture offered by COS, which can provide IDC-level disaster recovery capabilities for your data. For more information, see Overview of Multi-AZ Feature.

# 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 on the console to protect your data resources. For more information, see Hotlink Protection Practice.

# Access Management

Feature	Description
Cross-Origin Access	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 the developer. 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 Policies.
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 distribute 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 Global Acceleration Overview.
Single-connection bandwidth limit	COS allows setting a bandwidth limit on uploads and downloads to ensure sufficient 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 and alarms

Feature	Description
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 Dashboard 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 <u>Setting Alarm Polices</u> .
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# 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 Overview on Image Advanced Compression and Blind Watermarking 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.
File processing	File processing is a processing service provided by COS based on CI for all formats of files. Currently, it provides file hash calculation, file decompression and multi-file zipping capabilities. For details, see File Processing Overview.
Document preview	Document preview is based on CI. After it is enabled, document files in buckets can be previewed online directly without download. For more information, see Document Preview Overview.
Smart audio	Smart audio is based on CI. After it is enabled, you can perform operations such as text to speech, speech recognition, and audio noise reduction. For more information, see Smart Audio Overview.
Function calculation	COS supports CDN Purge Cache for specified buckets. For more information, see Function Calculation.

### **Data Moderation**

Feature	Description
Content moderation	The COS content moderation service intelligently moderates the multimedia content of images, videos, speeches, text, documents, and webpages. 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
Integration with other Tencent Cloud services	Based on Serverless Cloud Function (SCF), COS provides database backup, message backup, log backup, log analysis, and data export features. For more information, see Application Integration.

### Tools

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

# APIs/SDKs

Feature	Description
APIs and SDKs	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(C#), Flutter, Go, iOS, Java, JavaScript, Node.js, PHP, Python, and
Weixin Mini Programs. For more information, see SDK Overview.

# Supported Protocols

Feature	Description
Various protocols	COS supports HTTP 1.0, HTTP 1.1, and QUIC transfer protocols. It also supports TLS 1.0, TLS 1.1, and TLS 1.2 encryption protocols. To try the QUIC protocol, contact us to add your account to the allowlist.

# Strengths

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### **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 99.9999999999% 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

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### Bucket

A bucket is a carrier of objects, which can be considered as a "container" for storing objects. You can manage buckets and configure attributes for buckets through various methods such as the Tencent Cloud console, APIs, and SDKs. For example, you can set a bucket to be used for static website hosting or set access permission for a bucket. For more information, see <u>Bucket Overview</u>.

### 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>.

For more information, see Object Overview.

### APPID

APPID is a fixed unique application ID automatically assigned to you after you sign up for a Tencent Cloud account. You can view your APPID on the Account Information page.

APPID is usually used in bucket names. A complete bucket name consists of a custom string and APPID separated by hyphen, such as examplebucket-1250000000, where 1250000000 is the APPID.

### UID

APPID can also be used to generate temporary keys, specify bucket policies, or specify resources in CAM policy settings. In such cases, APPID is also referred to as UID, both of which have the same value. For more information, see Bucket Overview, Overview, and Resource Description Method.

### UIN

A UIN is an account ID. It is fixed, unique, and in one-to-one correspondence to an APPID and can be viewed in Account Information. In COS, it can be used to generate temporary keys, specify bucket policies, or specify resources in CAM policy settings. In such cases, UIN and UID are used in the same way, but they have different prefixes. For more information, see Overview and Resource Description Method.

### ACL

An access control list (ACL) is a resource-based access management option and describes an access permission. In COS, an ACL can be used to manage the access to buckets and objects. You can use it to grant other root accounts, sub-accounts, and user groups basic read and write permissions. For more information, see Basic Concepts of Access Control and ACL.

### CORS

Cross-origin resource sharing (CORS) refers to HTTP requests where the origin of the resource that initiates the request is different from the origin of the destination resource.

### SecretKey

SecretId and SecretKey , collectively referred to as the API key, are the security credential used for authentication when you access a TencentCloud API and can be viewed on the Manage API Key key. SecretKey is used to encrypt signature strings and verify them on the server. You can create multiple API keys for one APPID.

### SecretId

SecretId and SecretKey , collectively referred to as the API key, are the security credential used for authentication when you access a TencentCloud API and can be viewed on the Manage API Key key. SecretId is used to identify the API caller. You can create multiple API keys for one APPID.

### Policy

A policy consists of several elements and is used to describe specific information about authorization. For more information, see Overview.

### Public network downstream traffic

Public network downstream traffic is the traffic generated by data transfer from COS to the client over the internet, including the traffic generated by downloading an object directly through an object link or by browsing an object at a static website endpoint.

### **CDN origin-pull traffic**

CDN origin-pull traffic is the traffic generated by data transfer from COS to CDN edge node.

### **Default endpoint**

The default endpoint is COS origin's domain name, which is automatically generated based on the bucket name and region when you create a bucket. It's important to distinguish it from the default acceleration domain name. For more information, see Overview.

### Default CDN acceleration domain name

It is the domain name passing through CDN cache nodes, which is generated by default and you can choose to enable or disable. For more information, see Overview.

### **Custom CDN acceleration domain name**

You can bind for your bucket a custom domain name to CDN and access objects in your bucket using this domain name. For more information, see Overview.

### Custom origin domain name

You can bind your own domain name as a custom endpoint to the bucket for access to the objects in it. For more information, see Overview.

### Data retrieval

Storage classes suitable for cold data include **STANDARD\_IA** and **ARCHIVE**. To read or download data in STANDARD\_IA, the backend needs to retrieve it first. ARCHIVED data cannot be read or downloaded until it is restored to the STANDARD storage class.

### MAZ

MAZ refers to the multi-AZ storage architecture provided by COS. Your data is distributed among multiple IDCs in a region. When an IDC fails in extreme cases such as natural disasters or power outages, the multi-AZ storage architecture can still provide stable and reliable storage services.

For more information, see Overview of Multi-AZ Feature.

### Region

A region is a physical location where data centers are hosted on Tencent Cloud. COS data is stored in the buckets in these regions.

For more information, see Regions and Access Endpoints.

# **Regions and Access Endpoints**

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# 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)	ap-beijing-1	<bucketname-appid>.cos.ap-beijing- 1.myqcloud.com</bucketname-appid>
	Beijing	ap-beijing	<bucketname-appid>.cos.ap- beijing.myqcloud.com</bucketname-appid>	
	Nanjing	ap-nanjing	<bucketname-appid>.cos.ap- nanjing.myqcloud.com</bucketname-appid>	
	Public cloud regions	Shanghai	ap-shanghai	<bucketname-appid>.cos.ap- shanghai.myqcloud.com</bucketname-appid>
		Guangzhou	ap-guangzhou	<bucketname-appid>.cos.ap- guangzhou.myqcloud.com</bucketname-appid>
		Chengdu	ap-chengdu	<bucketname-appid>.cos.ap- chengdu.myqcloud.com</bucketname-appid>
		Chongqing	ap-chongqing	<bucketname-appid>.cos.ap- chongqing.myqcloud.com</bucketname-appid>

### **Outside Chinese mainland**

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

### 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-125000000.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-125000000.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

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Category	Specifications and Limits	Description
	Limits	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.
		Requests to list objects/historical versions/in- progress multipart upload tasks in a bucket: 1,000 QPS for each bucket in all regions by default.
		Bucket creating/deleting/listing requests: 50 QPS for each `APPID` in all regions.
QPS		Data retrieval requests: 100 QPS for each bucket in all regions.
		One-time inventory job creating requests: 1 QPS for each bucket in all regions.
		Single-file upload/deletion/listing requests for traffic throttling: 50 QPS.
		Single-file download requests for traffic throttling: 1,000 QPS.To raise your QPS threshold, see Request Rate and Performance Optimization.
Bandwidth	Limits	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.
Storage class	MAZ_STANDARD/STANDARD limits	Billing limits:There is no limit on storage duration or object size.For more information about the billing of STANDARD, see Product Pricing.
	MAZ_STANDARD_IA/STANDARD_IA limits	Billing limits: An object stored less than 30 days is billed as 30 days.

		An object smaller than 64 KB is billed as 64 KB. If the object size is greater than or equal to 64 KB, it is billed based on its actual size.For more information about the billing of STANDARD_IA, see Product Billing.
	MAZ_INTELLIGENT TIERING/INTELLIGENT TIERING limits	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.
		Billing limits: An object stored less than 90 days is billed as 90 days.
	ARCHIVE limits	An object smaller than 64 KB is billed as 64 KB. If the object size is greater than or equal to 64 KB, it will be billed based on its actual size.For more information about the billing of ARCHIVE, see Product Pricing.
		Billing limits: An object stored less than 180 days is billed as 180 days.
	DEEP ARCHIVE limits	An object smaller than 64 KB is billed as 64 KB. If the object size is greater than or equal to 64 KB, it will be billed based on its actual size.For more information about the billing of DEEP ARCHIVE, see Product Pricing.
Bucket		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.
	Limits	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.
Object	Upload	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). Upload API specifications: 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. Currently, for a bucket with MAZ configuration enabled, objects can be uploaded to MAZ storage classes (MAZ_STANDARD or MAZ_STANDARD_IA). If intelligent tiering configuration is also enabled for the bucket, objects can also be uploaded to the MAZ_INTELLIGENT TIERING storage class. 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	Objects can be replicated within and across regions under the same account.

		<ul> <li>Intra-region replication is free of charge, while cross-region replication incurs traffic fees. For more information, see Pricing   Cloud Object Storage.</li> <li>Copy APIs specifications:</li> <li>Simple copy: A single object to be copied can be up to 5 GB. For more information, see Simple Copy.</li> <li>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 Multipart Copy.</li> <li>Objects in MAZ buckets cannot be replicated to an OAZ bucket.</li> <li>Currently, you cannot copy STANDARD, STANDARD_IA, or INTELLIGENT TIERING objects to the INTELLIGENT TIERING storage class.</li> </ul>
	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.
	Number of rules	Each bucket can have up to 1,000 lifecycle rules.
Lifecycle	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 in the MAZ_STANDARD or MAZ_STANDARD_IA storage class cannot be transitioned to the STANDARD, STANDARD_IA, or ARCHIVE storage class.2. Objects smaller than 64 KB will not be transitioned.
	Expired object deletion	STANDARD/STANDARD_IA/ARCHIVE: At least 1 day.
SDKs		14 SDKs: Android, C, C++, .NET, Flutter, Go, iOS, Java, JavaScript, Node.js, PHP, Python, React Native, 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.
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