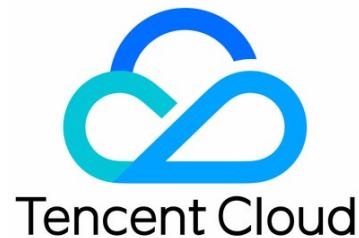


# **Content Delivery Network**

## **Scenario Teaching**



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# Scenario Teaching

## CDN Acceleration for Image and Text Websites

### Business Scenario

Last updated: 2025-01-02 10:32:52

Suppose you have a small photography website. With increased traffic, issues like slow image loading or load failure often occur. To enhance user experience, you want to access Tencent Cloud CDN for acceleration.

#### Website Information

- **Domain:** `www.qcdntest.cn`
- **Origin Server:** own server, IP is 219.137.148.100, only supports HTTP access
- **User Group:** domestic users
- **Average file size:** 500 KB
- **Cache TTL:** 2 days for JPG/PNG files; 7 days for GIF files and the directory; no cache for PHP files
- **Acceleration requirements:** To control costs, we hope to control access bandwidth to 5 Gbps
- **Bandwidth estimation model:** Suppose that the average number of daily visitors is 1,000, with the max concurrency of 40 visitors. The bandwidth requirement of each visitor is 50 Mbps, which means the bandwidth peak is around  $50 \text{ Mbps} * 40 = 2,000 \text{ Mbps}$ . Counting in the bandwidth requirements for bursty traffic, we recommend setting the bandwidth cap to 5,000 Mbps.

Before integrating CDN, you must have already activated the CDN service. If not, refer to the document [How to Activate Tencent Cloud CDN](#).

Now, we will introduce the entire configuration process, allowing you easy and quick integration with Tencent Cloud CDN.

# Step 1: Add Domain Names

Last updated: 2025-01-02 10:33:29

1. Log in to the [CDN console](#), click **Domain Management** on the left sidebar to enter the domain management page, and click **Add Domain**.



The screenshot shows the 'Domain Management' page. At the top, there is a red box around the '域名管理' (Domain Management) button. Below it, there is a 'CNAME变更通知' (CNAME change notification) section with a red arrow pointing to the '添加域名' (Add Domain) button. The '批量操作' (Batch Operation) dropdown is also visible. At the bottom right, there is a search bar and some filter icons.

2. Domain name configuration

Configure your website as below:



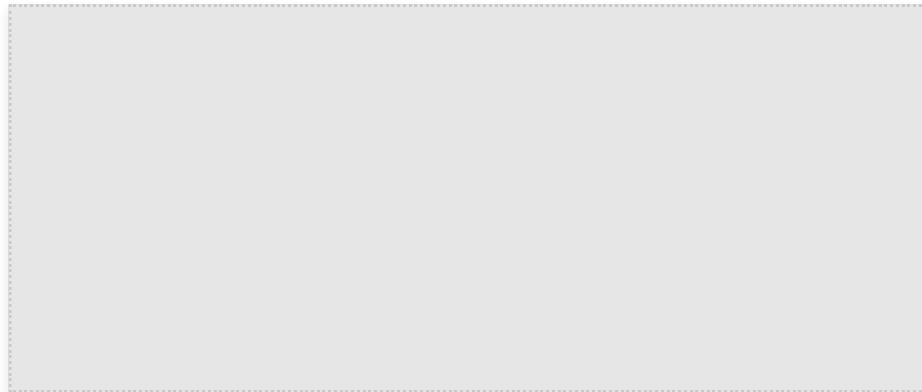
The screenshot shows the 'Domain Configuration' section. The 'DNS Resolution Verification' tab is selected. It displays instructions for adding a TXT record to the domain. Below the instructions is a table with columns '主机记录' (Host Record) and '记录值' (Record Value), showing a record for '\_cdnauth'. There is a '验证' (Verify) button. At the bottom of this section is a '添加' (Add) button. The '加速类型' (Acceleration Type) dropdown is set to 'CDN 网页小文件' (CDN Web Small Files). The 'IPv6访问' (IPv6 Access) switch is turned on. The '所属项目' (Associated Project) dropdown is set to '默认项目' (Default Project). The '标签 (选填)' (Tags) field contains '可以标识域名业务或用途等' (Can identify domain business or purpose, etc.).

As shown in the figure above, when adding a wildcard domain, a domain already added by other users, or a new domain for the first time, it is necessary to verify the domain ownership. If your domain registrar is Tencent Cloud, you can configure a TXT record for the primary domain as shown in the figure below to complete the verification and add the domain. For more details, please see [Domain Name Ownership Verification](#).

3. Origin Server Configuration

**Purpose of the Origin Server:** The origin server stores website resources. When the resources requested by users are not cached on CDN nodes, the nodes will read the origin server information configured for the domain name, fetch resources from the origin, and cache them on the nodes. Therefore, the origin server information must be filled in accurately to ensure that the CDN can fetch the corresponding resources from the origin server.

Configure as follows based on your origin server information.



Configuration Item	Description
Origin server type	If the website's origin server is a self-owned server for stable business operations, select "Private Source".
Origin-pull Protocol	Only HTTP origin-pull is supported. Select "HTTP" for the origin-pull protocol. Choose the origin-pull protocol based on the actual protocol supported by the origin server to ensure compatibility.
Origin server address	Enter the server IP of the origin server. <ul style="list-style-type: none"><li>Multiple IPs can be configured as origin servers, and origin-pull will be performed in a round-robin manner.</li><li>You can add a port (0 – 65535) and a weight (1 – 100) in the format of Origin server address:Port:Weight or Origin server address::Weight. Currently, the HTTPS protocol only supports port 443.</li><li>A domain name can be configured as the origin server, but it must be different from the business acceleration domain.</li></ul>
Host Header	<ul style="list-style-type: none"><li><b>Definition:</b> This configuration item refers to the domain name accessed on the origin server by a CDN node during origin-pull. The default is the acceleration domain name.</li><li><b>Differences between Origin address and Origin Domain:</b> The IP address or domain name that is configured on the origin server allows a CDN node to find the corresponding origin server during origin-pull. If multiple websites run on the origin server, the value of Origin Domain specifies the website where the resources are stored. Configure according to actual business scenarios.</li><li><b>Configuration instruction:</b> If the resources can be obtained by using the acceleration domain name during origin-pull, you do not need to modify the value. If the resources can be obtained by using another domain name rather than the acceleration domain name during origin-pull, you need to enter the corresponding domain name.</li></ul>

4. Click **Confirm to Add** to complete adding the domain. Tencent Cloud CDN provides recommended configurations for the domain based on your acceleration type. You can refer to the [Recommended Configuration](#) for setup, or click [Return to Domain Management](#) to complete the domain addition.



## Step 2: Testing and Validation (Recommended)

Last updated: 2025-01-02 10:33:42

After you complete the addition and configuration of the domain in the CDN console, it is recommended to perform testing and validation. If the access is normal, then switch the DNS resolution to Tencent Cloud. The test methodology is as follows. For more details, see [CDN Access Test](#).

1. View the CNAME domain, i.e., `www.qcdntest.cn.cdn.dns1.com.cn`



The screenshot shows the Tencent Cloud CDN console interface. In the top navigation bar, there are tabs for '加速类型' (Acceleration Type), '状态' (Status), 'CNAME' (with a help icon), '接入方式' (Access Method), '服务地域' (Service Region), and '操作' (Operations). Below the navigation bar, there is a table with one row. The first column contains a checkbox and the text 'www.qcdntest.cn'. The second column contains a green checkmark and the text '已启动' (Enabled). The third column contains a red box with a white question mark icon and the text 'www.qcdntest.cn.cdn.dns1.com.cn'. The fourth column contains the text '自有源' (Own Source). The fifth column contains the text '中国境内' (China Domestic). The sixth column contains a blue link '管理' (Manage) and a blue link '复制配置' (Copy Configuration). The seventh column contains a blue link '更多' (More).

2. Obtain the CDN node IP

Open the terminal command window and execute the following command in the command line: the returned IP is the CDN acceleration node.

```
ping www.qcdntest.cn.cdn.dns1.com.cn
```



```
Microsoft Windows [版本 10.0.19043.1466]
(c) Microsoft Corporation. 保留所有权利。

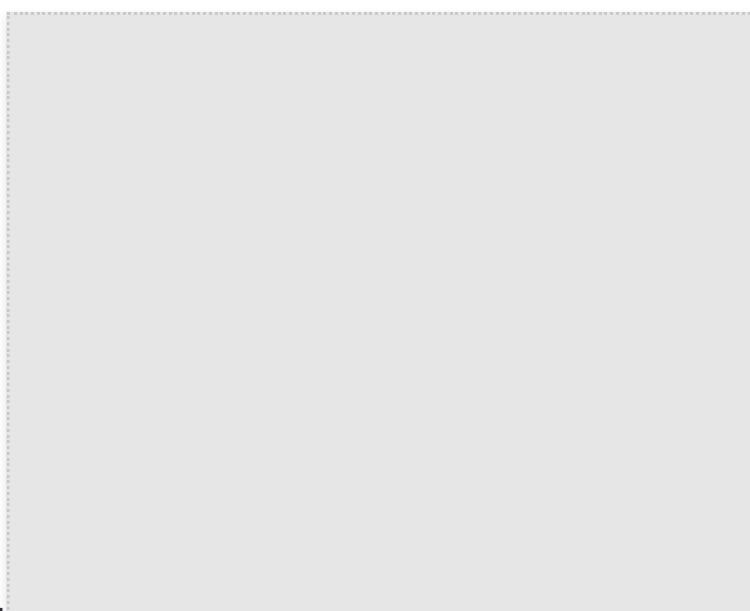
C:\Users\... ping www.qcdntest.cn.cdn.dns1.com.cn
正在 Ping 110.185.117.235 [110.185.117.235] 具有 32 字节的数据:
来自 110.185.117.235 的回复: 字节=32 时间=38ms TTL=50
来自 110.185.117.235 的回复: 字节=32 时间=42ms TTL=50
来自 110.185.117.235 的回复: 字节=32 时间=38ms TTL=50
来自 110.185.117.235 的回复: 字节=32 时间=41ms TTL=50

110.185.117.235 的 Ping 统计信息:
    数据包: 已发送 = 4, 已接收 = 4, 丢失 = 0 (0% 丢失),
往返行程的估计时间(以毫秒为单位):
    最短 = 38ms, 最长 = 42ms, 平均 = 39ms
```

3. Set the hosts file

Bind the node IP (110.185.117.235) obtained in Step 2 and the acceleration domain name (`www.qcdntest.cn`) to the local hosts file on your computer. The filling method is IP domain name, with the IP address first, followed by the acceleration domain name, separated by a space.

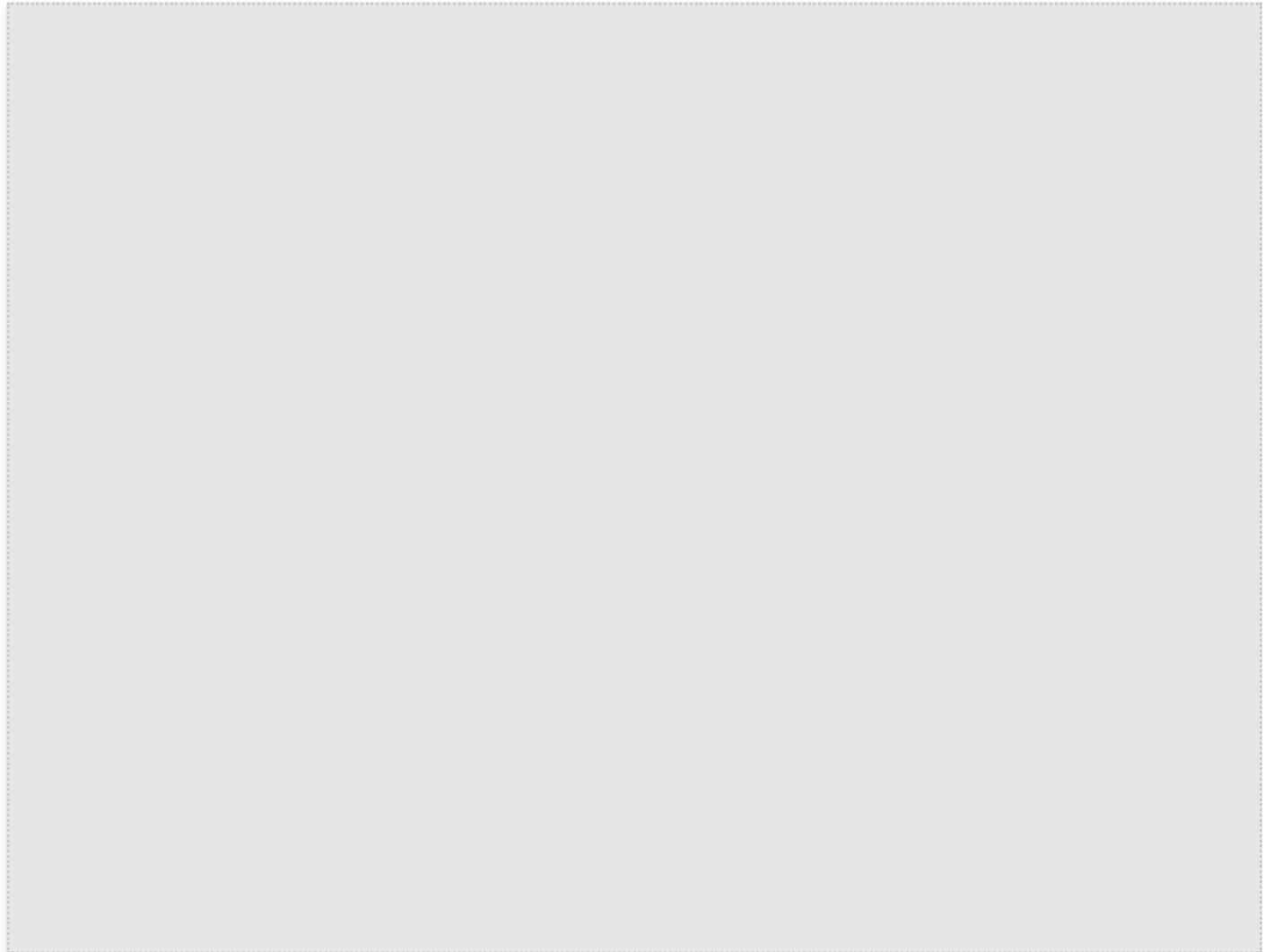
Windows system: the file path location of the hosts file is `C:\Windows\System32\drivers\etc\hosts`. Bind it as shown in the figure



below.

macOS system: Enter the terminal (command window), type `sudo vi /etc/hosts`, press Enter, then enter the password, and press Enter again to open the hosts file. After entering, type `i` to edit. The filling method is the same as the above Windows.

4. Conduct a simulated access test. If the response is consistent with the origin server, it indicates access successful.



# Step 3: Configure a CNAME

Last updated: 2025-01-02 10:33:55

After adding the completed accelerated domain name, CDN will assign a CNAME domain name. You need to complete the CNAME configuration with your domain name service provider. Once the configuration takes effect, you can enjoy CDN acceleration service. Below is a configuration example. For more detailed operations, see [Configure CNAME](#).

- If your domain resolution service provider is Tencent Cloud:

The screenshot shows the DNSPod control panel for domain `qcdntest.cn`. A new CNAME record is being added for the host `www`. The record type is set to `CNAME`, and the value is `www.qcdntest.cn.cdn.d`. The TTL is set to `600`. Annotations with red arrows point to the host record, the record type, and the TTL value, with the text '填写系统分配的CNAME' (Fill in the system-assigned CNAME) placed over the record value field.

- If your domain resolution service provider is Alibaba Cloud:

The screenshot shows the Alibaba Cloud DNS management console for domain `qcdntest.cn`. A new CNAME record is being added for the host `www`. The record type is set to `CNAME - 将域名指向另一个域名`, and the value is `www.qcdntest.cn.dnsv1.com.cn`. The TTL is set to `10分钟`. Annotations with red arrows point to the host record, the record type, and the TTL value, with the text '填写系统分配的CNAME域名' (Fill in the system-assigned CNAME domain name) placed over the record value field.

After configuration, you can verify if it takes effect using the `nslookup` or `dig` command. If effective, it will show "acceleration service is running normally."

**Test command:** `nslookup www.qcdntest.cn` or `dig www.qcdntest.cn`. If a CNAME domain name is returned, it means the domain name resolution has pointed to Tencent Cloud.

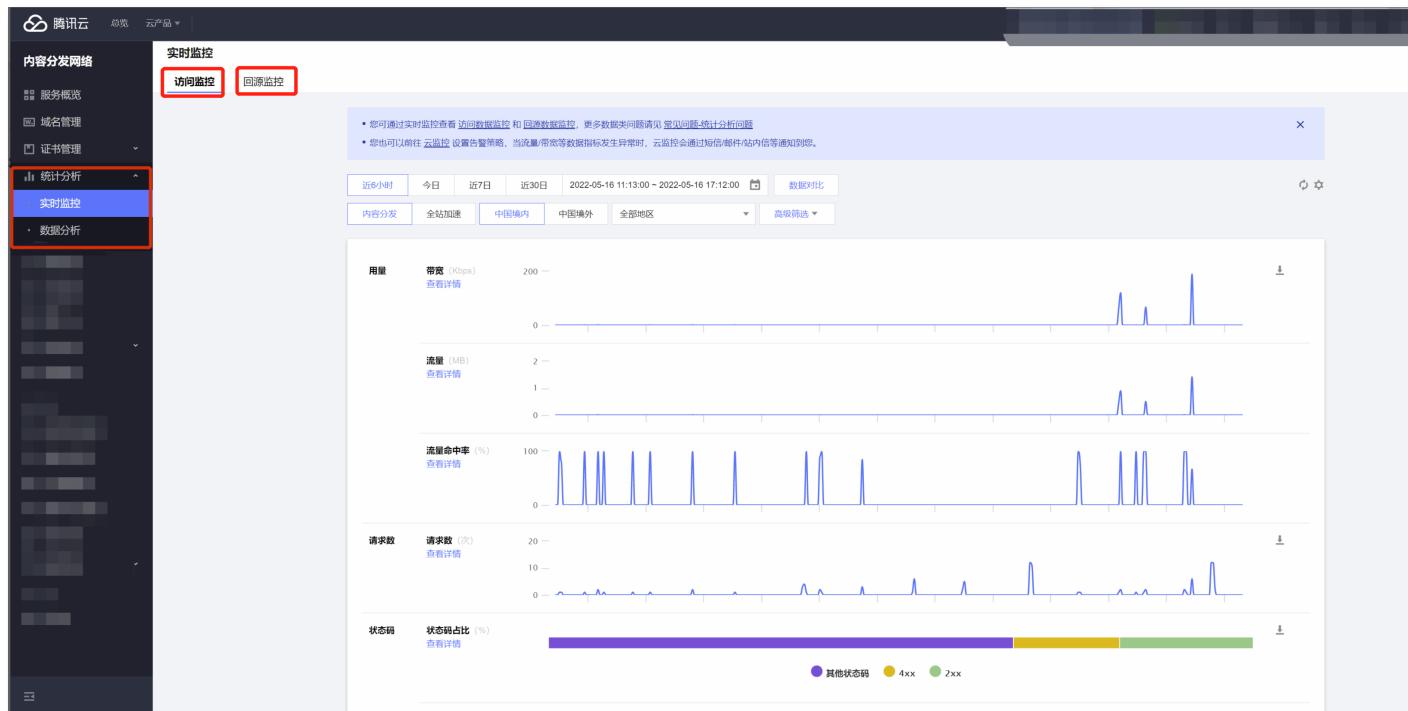
```
[~]# dig www.qcdntest.cn

; <>> DiG 9.11.13-RedHat-9.11.13-5.el8_2 <>> www.qcdntest.cn
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 14489
;; flags: qr rd ra; QUERY: 1, ANSWER: 7, AUTHORITY: 0, ADDITIONAL: 0
;; QUESTION SECTION:
;www.qcdntest.cn.           IN      A
;; ANSWER SECTION:
www.qcdntest.cn.      600     IN      CNAME   www.qcdntest.cn.cdn.dnsv1.com.cn.
```

# Step 4: Monitoring the Live Environment

Last updated: 2025-01-02 10:34:08

You can observe whether the client monitoring data is normal, or check various monitoring data of the domain name through the "Statistical Analysis" directory on the left side of the [CDN Console](#), such as access bandwidth, back-to-origin bandwidth, status codes, etc. If there is a significant increase in non-2XX status codes for access and back-to-origin, it indicates that the service may be abnormal. To ensure the current network service is not affected, it is recommended to switch the domain name resolution back to the origin server, find the cause and repair it before switching the CNAME to Tencent Cloud.



# Related Documents

Last updated: 2025-01-02 10:34:18

You can configure more features based on your business needs to further enhance acceleration performance and access security. Configuration entry: click **Management** on the right side of the domain name.

Scenario	Description	Configuration
Increase cache hit rate	Configuring a reasonable cache policy can effectively increase the cache hit rate: <ul style="list-style-type: none"><li>For static files with low update frequency (such as images, text, etc.), it is recommended to set it to more than one month.</li><li>For static files with high update frequency (such as JS, CSS, etc.), set it according to the actual business situation.</li><li>For dynamic files (such as PHP, JSP, ASP, ASPX, etc.), it is recommended to set no cache.</li></ul>	<a href="#">Node Cache Expiration Configuration</a>
	If your business URLs contain parameters and the change of all or some of the parameter values has no effect on the target file, we recommend that you ignore caching parameters.	<a href="#">Cache Key Rule Configuration</a>
Increase access security	You can enable HTTPS access. <ul style="list-style-type: none"><li>If you already have a certificate, you can directly upload it for configuration.</li><li>You can go to <a href="#">SSL Certificate Management</a> to apply for a free DV SSL certificate issued by TrustAsia.</li></ul>	<a href="#">HTTPS Configuration Guide</a>
	You can enable hotlink protection configurations such as IP allowlist/blocklist, referer allowlist/blocklist, UA allowlist/blocklist, URL authentication, etc.	<a href="#">Access Control</a>
Avoid high bills	You can enable related security protection strategies to help prevent extra costs for extensive bandwidth and traffic caused by malicious attacks and hotlinking.	<a href="#">Attack Risk High Bills</a>

# Accelerating Resources on COS with CDN

## Business Scenario

Last updated: 2025-01-02 10:34:41

Suppose your website uses a self-built origin server. Due to insufficient performance of the origin server, users often report slow or failed image loading during peak periods of the business. To improve the response performance of the origin server, you can store static files on Tencent Cloud COS. Additionally, considering that COS storage servers are only deployed in certain regions, to ensure a good browsing and downloading experience for users across the country, you can also access Tencent Cloud CDN for accelerated distribution of files stored on COS.

### Specific Requirements

Based on the business scenario requirements, the preliminary sorting of product requirements for Tencent Cloud CDN and COS is as follows:

#### CDN Requirements:

- Domain: [www.qcdntest.cn](http://www.qcdntest.cn)
- User Group: domestic users
- Origin site domain: The domain name assigned by the COS bucket
- Cache TTL: 2 days for JPG/PNG files; 7 days for GIF files and the directory; no cache for PHP files
- Other requirements: To control costs, we hope to limit the access bandwidth to 5 Gbps
- Bandwidth Estimation Model: Suppose that the average number of daily visitors is 1,000, with the max concurrency of 40 visitors. The bandwidth requirement of each visitor is 50 Mbps, which means the peak bandwidth can reach  $50 \text{ Mbps} \times 40 = 2,000 \text{ Mbps}$ . Considering the need for redundancy and burst traffic, the bandwidth can be capped at 5,000 Mbps.

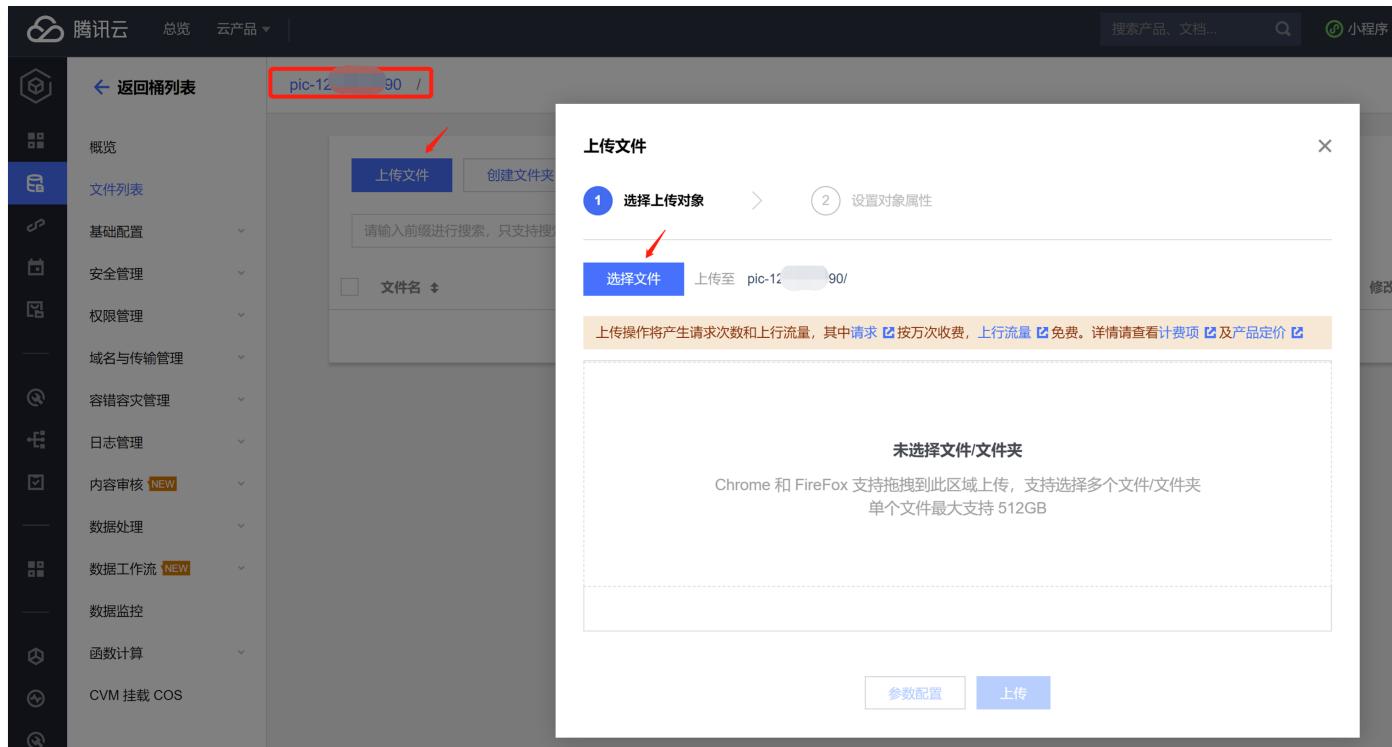
COS requirements are as follows:

- Bucket region: Guangzhou
- Bucket name: pic
- Access permission: Private read and write
- Storage resources: image category, average file size 500KB

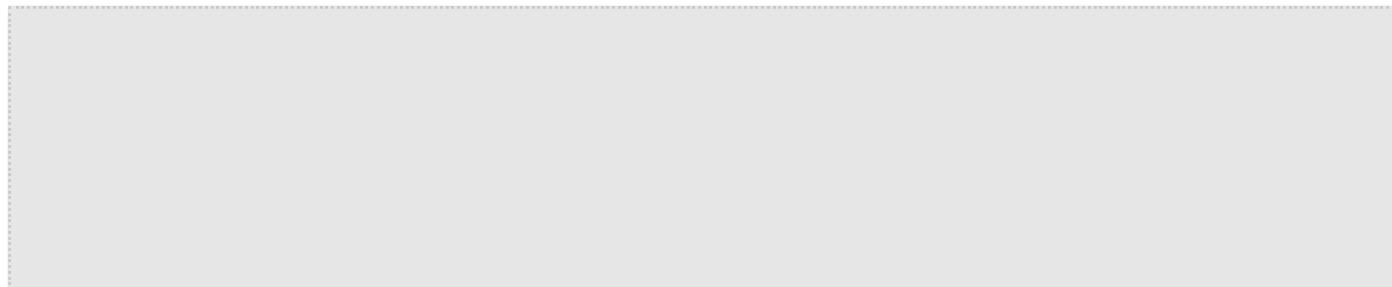
## Step 2: Upload Files to a COS Bucket

Last updated: 2025-01-02 10:35:01

On the created bucket page, click **Upload File**, a popup will appear. In the popup, click **Select File**.



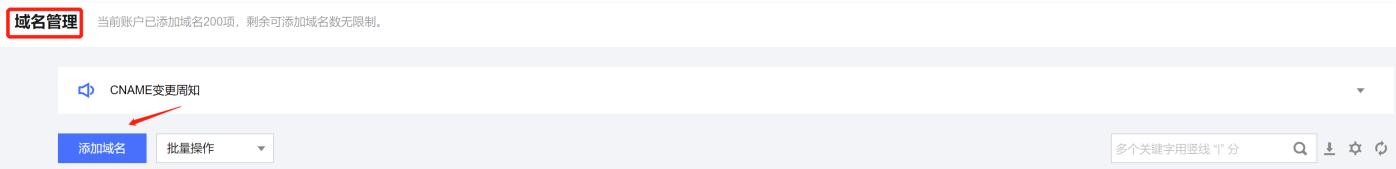
After the file upload is completed, it will be displayed in the bucket file list.



# Step 3. Configuring a Domain Name

Last updated: 2025-01-02 10:35:11

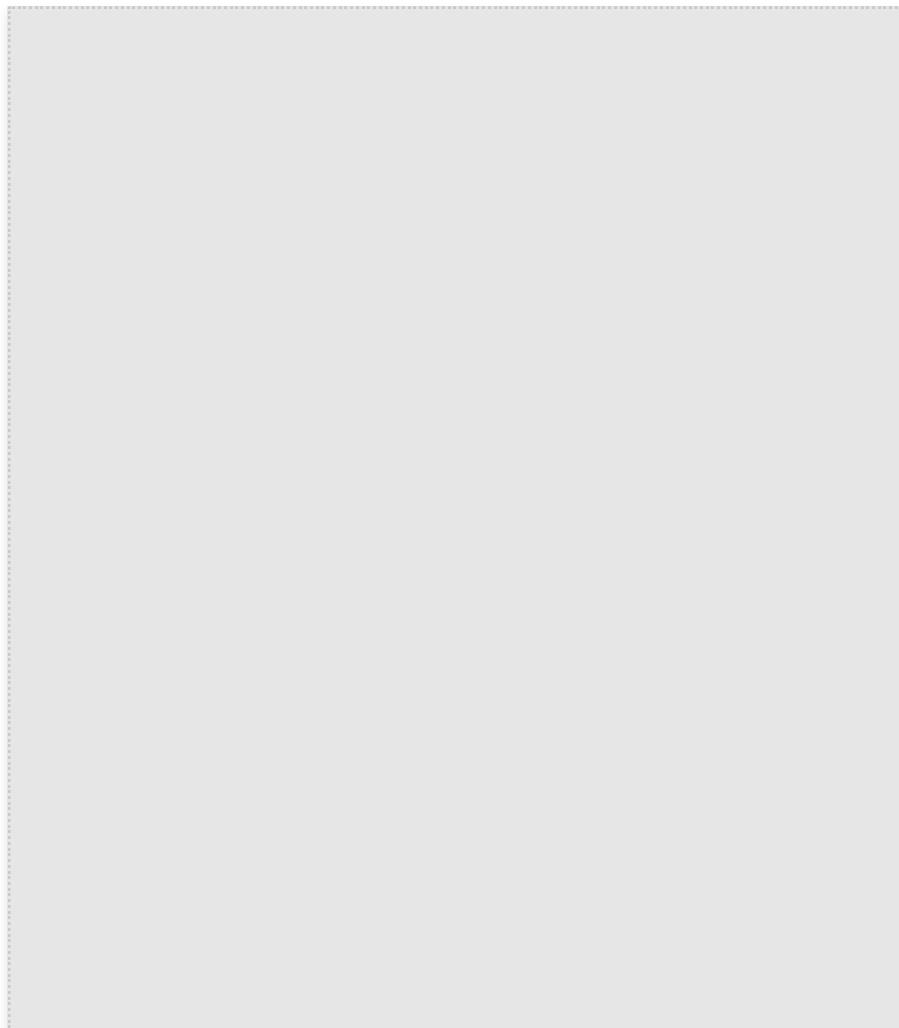
1. Log in to the [CDN console](#), click **Domain Management** on the left sidebar to enter the domain management page, and click **Add Domain**.



The screenshot shows the 'Domain Management' page in the Tencent Cloud CDN console. At the top, there is a red box around the '域名管理' (Domain Management) tab. Below it, a red arrow points to the '添加域名' (Add Domain) button, which is highlighted with a blue background. The page also includes a 'CNAME变更通知' (CNAME Change Notice) section, a '批量操作' (Batch Operation) dropdown, and a search bar.

2. Domain name configuration

Configure your website as below:



As shown in the figure above, when adding a wildcard domain, a domain already added by other users, or a new domain for the first time, it is necessary to verify the domain ownership. If your domain registrar is Tencent Cloud, you can configure a TXT record for the primary domain as shown in the figure below to complete the verification and add the domain. For more details, please see [Domain Name Ownership Verification](#).

3. Origin server configuration

Purpose of the origin server: The origin server stores website resources. When the resources requested by users are not cached at the CDN node, the node will read the origin server information configured for the domain name, fetch resources from the origin, and cache them at the node. Therefore, the origin server information must be filled in accurately to ensure that the CDN can normally fetch the corresponding resources from the origin. Based on your origin server information, the configuration is as follows.

**源站配置**

源站类型  自有源  COS源  IGTM多活源  第三方对象存储 ①

回源协议  HTTP  HTTPS  协议跟随  
若您的源站支持 HTTPS 访问, 建议选择 HTTPS 作为您的回源协议, 避免您的回源数据被窃取或者篡改。

源站地址   选择正确的COS存储桶, 若COS存储桶设置为静态网站时, 此处也应选择静态网站。

私有存储桶访问  私有存储访问默认开启, CDN 需可读取存储桶下可前往[COS-bucket权限管理](#)进行设置。  
公网分发, 若存储桶访问权限为“公有读写”可选择关闭, 如需修改权限设置,

回源HOST  选择COS源为源站时, 回源HOST不可修改。

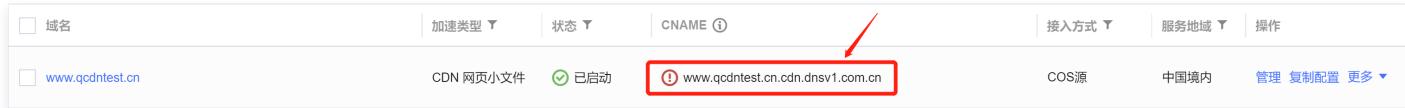
4. Click **Confirm to Add** to complete domain name addition. At the same time, Tencent Cloud CDN provides recommended configurations for the domain name based on your acceleration type. You can refer to the [Recommended Configuration](#) for setup.

# Step 4. Verifying the Domain Name

Last updated: 2025-01-02 10:35:21

After adding and configuring the domain in the CDN console, it is recommended to perform testing and validation. If the access is normal, switch DNS resolution to Tencent Cloud. The test methodology is as follows. For more details, see [CDN Access Test](#).

1. View the CNAME domain, which is `www.qcdntest.cn.cdn.dns1.com.cn`

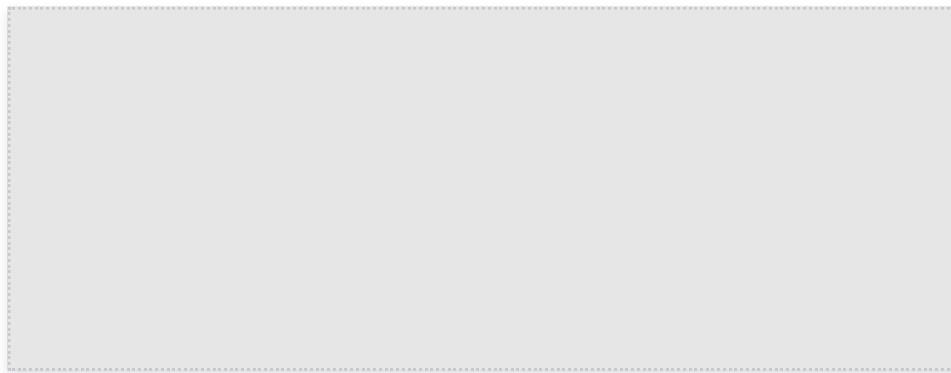


The screenshot shows a list of domains in the CDN console. The domain `www.qcdntest.cn.cdn.dns1.com.cn` is listed with a status of "已启动" (Enabled). The "CNAME" field contains the value `www.qcdntest.cn.cdn.dns1.com.cn`, which is highlighted with a red box and a red arrow pointing to it. The interface includes filters for "加速类型" (Acceleration Type), "状态" (Status), and "接入方式" (Access Method), as well as buttons for "管理" (Manage), "复制配置" (Copy Configuration), and "更多" (More).

2. Obtain the CDN node IP

Open the terminal command window and execute the following command in the command line: the returned IP is the CDN acceleration node.

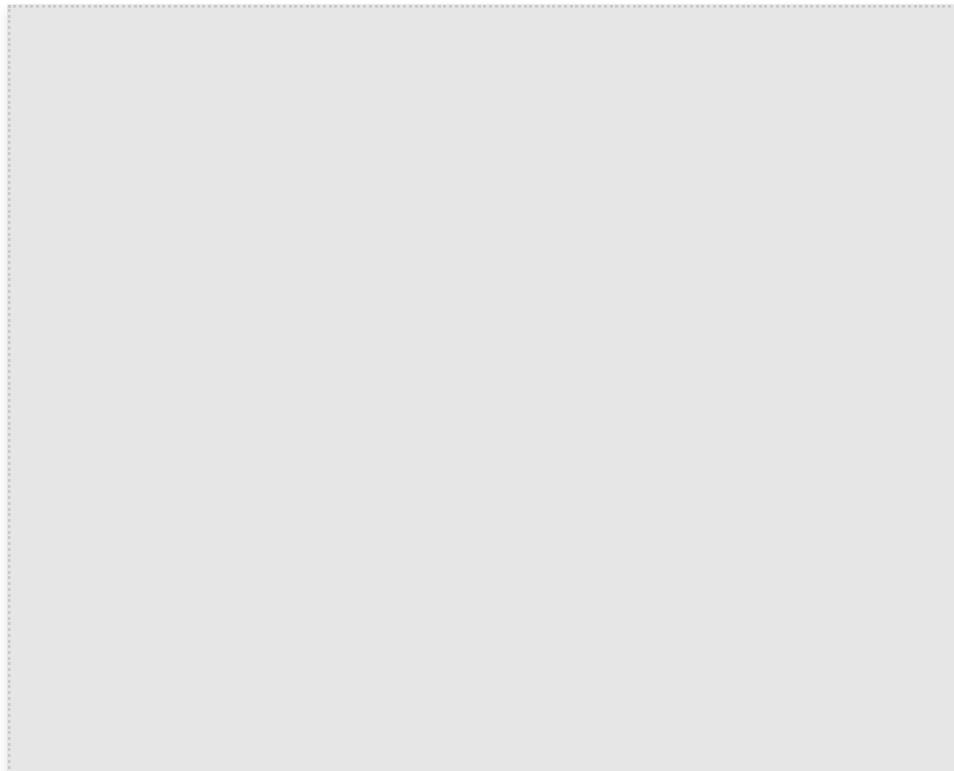
```
ping www.qcdntest.cn.cdn.dns1.com.cn
```



3. Set the hosts file

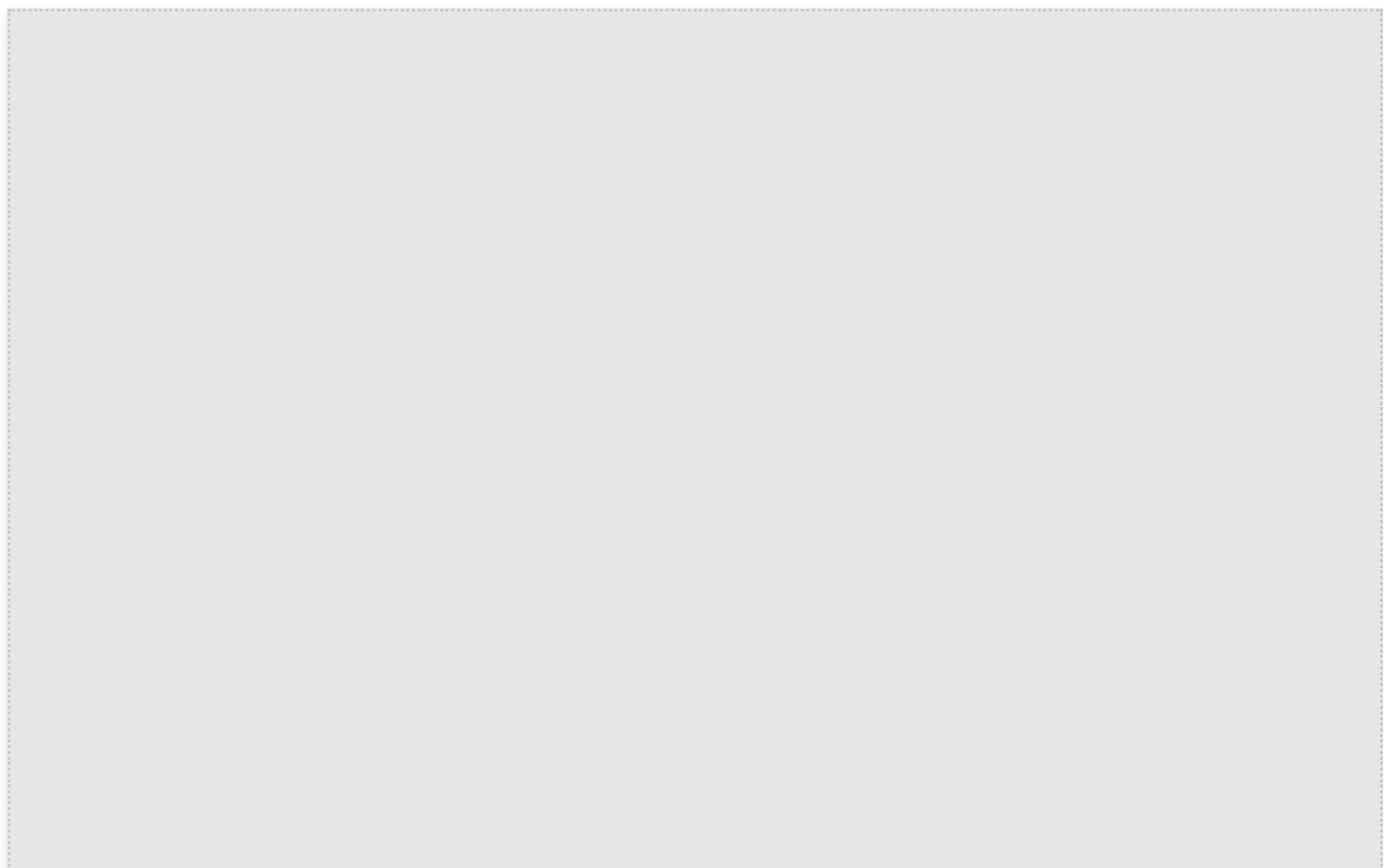
Bind the node IP (110.185.117.235) obtained in step 2 and the acceleration domain name (`www.qcdntest.cn`) to the local computer hosts file. The filling method is IP domain name, with the IP address first, followed by the acceleration domain name, separated by a space.

Windows system: the hosts file path location is C:\Windows\System32\drivers\etc\hosts. Bind as shown in the figure below.



macOS system: Enter the terminal (command window), type sudo vi /etc/hosts, press Enter, then enter the password, and press Enter again to open the hosts file. After entering, type i to edit. The filling method is the same as the above Windows system.

4. Conduct a simulated access test. If the response is consistent with the origin server, it indicates access successful.



# Step 5. Configuring the CNAME

Last updated: 2025-01-02 10:35:34

After adding the completed accelerated domain name, CDN will assign a CNAME domain name. You need to complete the CNAME configuration with your domain name service provider. Once the configuration takes effect, you can enjoy CDN acceleration service. Below is a configuration example. For more detailed operations, see [Configure CNAME](#).

- If your domain resolution service provider is Tencent Cloud:

The screenshot shows the DNSPod control panel for the domain 'qcdntest.cn'. In the '添加记录' (Add Record) section, a CNAME record is being configured for the host 'www'. The '记录类型' (Record Type) is set to 'CNAME', and the '记录值' (Record Value) is 'www.qcdntest.cn.cdn.d'. The 'TTL (秒)' (TTL) is set to '600'. A note below the form states: '主机记录即为域名前缀' (Host record is the domain prefix), '若解析 www.qcdntest.cn, 请填写 www' (If resolving www.qcdntest.cn, fill in www), '若解析 abc.qcdntest.cn, 请填写 abc' (If resolving abc.qcdntest.cn, fill in abc), '若解析 qcdntest.cn, 请填写 @' (If resolving qcdntest.cn, fill in @), and '若解析 \*.qcdntest.cn, 请填写 \*' (If resolving \*.qcdntest.cn, fill in \*).

- If your domain resolution service provider is Alibaba Cloud:

The screenshot shows the Alibaba Cloud DNS settings page for the domain 'qcdntest.cn'. In the '解析设置' (Resolution Settings) section, a CNAME record is being configured for the host 'www'. The '记录类型' (Record Type) is set to 'CNAME - 将域名指向另一个域名' (CNAME - Point domain to another domain). The '主机记录' (Host Record) is 'www', and the '解析线路' (Resolution Path) is '默认 - 必填! 未配置到智能解析线路时, 返回【默认】线路设置结果' (Default - Required! When not configured to intelligent resolution path, return the result of the default path settings). A note below the form states: '主机记录即为域名前缀' (Host record is the domain prefix), '若要解析 www.qcdntest.cn, 请填写 www' (If resolving www.qcdntest.cn, fill in www), '若要解析 abc.qcdntest.cn, 请填写 abc' (If resolving abc.qcdntest.cn, fill in abc), '若要解析 qcdntest.cn, 请填写 @' (If resolving qcdntest.cn, fill in @), and '若要解析 \*.qcdntest.cn, 请填写 \*' (If resolving \*.qcdntest.cn, fill in \*). The '记录值' (Record Value) is 'www.qcdntest.cn.dns1.com.cn', and the 'TTL' (TTL) is '10分钟' (10 minutes).

After configuration, you can verify if it takes effect using the nslookup or dig command. If effective, it will display "acceleration service is running normally".

Test command: `nslookup www.qcdntest.cn` or `dig www.qcdntest.cn`, if a CNAME domain name is returned, it means the domain resolution has been pointed to Tencent Cloud.



```
~]# dig www.qcdntest.cn

; <>> DiG 9.11.13-RedHat-9.11.13-5.el8_2 <>> www.qcdntest.cn
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 14489
;; flags: qr rd ra; QUERY: 1, ANSWER: 7, AUTHORITY: 0, ADDITIONAL: 0

;; QUESTION SECTION:
;www.qcdntest.cn.           IN      A

;; ANSWER SECTION:
www.qcdntest.cn.      600     IN      CNAME   www.qcdntest.cn.cdn.dnsv1.com.cn.
```

# Step 6. Monitoring the Live Environment

Last updated: 2025-01-02 10:35:45

You can check whether the client monitoring data is normal, or view various monitoring data of the domain name, such as access bandwidth, back-to-origin bandwidth, status codes, etc., through the "Statistical Analysis" directory on the left side of the [CDN console](#). If there is a significant increase in non-2XX status codes for access and back-to-origin, it indicates that the service may be abnormal. To ensure that the live environment is not affected, it is recommended to switch the domain name resolution back to the origin server, find the cause and fix it before switching the CNAME to Tencent Cloud.



# Related Documents

Last updated: 2025-01-02 10:35:57

You can configure more features based on your business needs to further enhance acceleration performance and access security. Configuration entry: click **Management** on the right side of the domain name.

Scenario	Description	Configuration
Increase cache hit rate	Configuring a reasonable cache policy can effectively increase the cache hit rate: <ul style="list-style-type: none"><li>For static files with low update frequency (such as images, text, etc.), it is recommended to set it to more than one month.</li><li>Static files with high update frequency (such as JS, CSS, etc.), set according to actual business situation.</li><li>Dynamic files (such as PHP, JSP, ASP, ASPX, etc.), it is recommended to set to no cache.</li></ul>	<a href="#">Node Cache Expiration Configuration</a>
	If your business URLs contain parameters and the change of all or some of the parameter values has no effect on the target file, we recommend that you ignore caching parameters.	<a href="#">Cache Key Rule Configuration</a>
Increase access security	You can enable HTTPS access. <ul style="list-style-type: none"><li>If you already have a certificate, you can directly upload it for configuration.</li><li>You can go to <a href="#">SSL Certificate Management</a> to apply for a free DV SSL certificate issued by TrustAsia.</li></ul>	<a href="#">HTTPS Configuration Guide</a>
	You can enable hotlink protection configurations such as IP allowlist/blocklist, referer allowlist/blocklist, UA allowlist/blocklist, URL authentication, etc.	<a href="#">Access Control</a>
Avoid high bills	You can enable related security protection strategies to help prevent extra costs for extensive bandwidth and traffic caused by malicious attacks and hotlinking.	<a href="#">Attack Risk High Bills</a>

# CDN Billing Scenarios Illustrated

Last updated: 2025-01-02 10:36:10

## Billing Overview

Tencent Cloud CDN billing consists of basic service billing and value-added service billing.

- **Basic Service Billing:** Downstream traffic or bandwidth cost generated by using CDN.
- **Value-Added Service Billing:** In addition to basic services, you can choose one or more value-added services as needed, such as QUIC access request count, APK dynamic packaging request count, etc.



## CDN Product Billing Explanation

### Scenario 1: The origin server of the acceleration domain name is a COS bucket

Users can leverage the capabilities of COS and CDN to host static content (including audio, video, images, etc.) in Cloud Object Storage (COS) and pre-deliver hot files to CDN edge nodes. This reduces storage costs and download latency, making it suitable for apps, audio and video platforms, websites, etc., with frequent download activities.

#### Description

When Cloud Object Storage (COS) is used as the customer's origin server, the following costs may apply: **Content Delivery Network (CDN) fees + Cloud Object Storage (COS) fees**

#### Description of billable items

Billing Item	Billing Products	Description
Pay-as-you-go	Content Delivery Network (CDN)	<p><b>Basic Fees:</b> Billing by traffic or billing by bandwidth</p> <p>Customers billed by traffic can purchase traffic packages in advance to offset future traffic costs. For details, see <a href="#">CDN Traffic Packages</a>.</p>

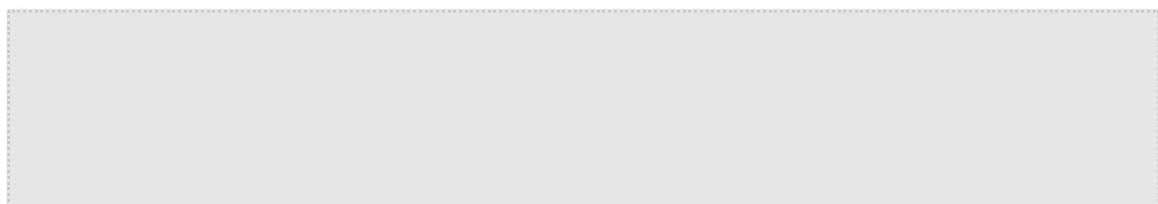
		Value-added fees: such as "QUIC access request count" and "APK dynamic packaging" and other fees. No usage, no charge. For details, see <a href="#">CDN Billing Explanation</a> .
CDN origin-pull traffic	COS Object Storage	<p>As shown above, when users use COS as the CDN origin server, the origin-pull traffic generated from COS to Tencent Cloud CDN edge nodes is billed by COS. For pricing details, see <a href="#">COS – Traffic Fees – CDN Origin-Pull Traffic</a>.</p> <p>According to your actual business usage, there may be additional fees such as "storage fees, data retrieval fees, and management feature fees." For detailed billing items, please see <a href="#">COS Billing Overview</a>.</p>

## Scenario 2: The origin server of the acceleration domain name is a CVM/Lighthouse

CDN supports access to any stably running business server (i.e., origin server). CDN stores your content according to the caching rules through high-performance edge nodes distributed around the world. When a user requests content, the request will be routed to the edge node closest to the user to speed up access and improve availability.

### Description

When using Cloud Virtual Machine (CVM) or Lighthouse as the origin server, the following fees may apply: [Content Delivery Network \(CDN\) fees](#) + [Cloud Virtual Machine \(CVM\)/Lighthouse fees](#).



### Description of billable items

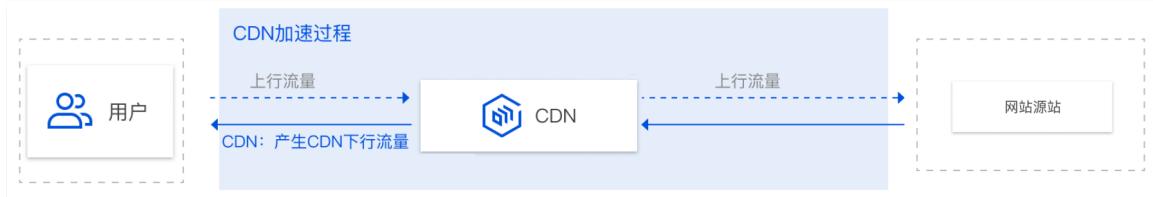
Billing Item	Billing Products	Description
Pay-as-you-go	Content Delivery Network (CDN)	<p>Basic Fees: Billing by traffic or billing by bandwidth</p> <p>Customers billed by traffic can purchase traffic packages in advance to offset future traffic costs. For details, see <a href="#">CDN Traffic Packages</a>.</p> <p>Value-added fees: such as "QUIC access request count" and "APK dynamic packaging" and other fees. No usage, no charge. For details, see <a href="#">CDN Billing Explanation</a>.</p>
Monthly Subscription	Cloud Virtual Machine (CVM) Lighthouse	<p>Monthly subscription is a prepaid mode for CVM instances, where you pay the fees for one or multiple months or even years in advance. For details, see <a href="#">Monthly Subscribed Instance Pricing</a>.</p> <p>Based on your actual business usage, there may also be value-added services. For detailed billing items, see <a href="#">CVM Billing Overview</a>.</p>

## Scenario 3: The origin server of the acceleration domain name is a self-owned origin server

CDN supports the integration of any business server (i.e., origin server) with stable operation. CDN stores your content according to caching rules through high-performance edge nodes distributed globally. When a user requests content, the request will be routed to the edge node closest to the user for rapid response, effectively reducing user access latency and improving availability.

### Description

When using a self-owned origin server as the CDN origin server, the following fees may apply: [Content Delivery Network \(CDN\) Fees](#).



## Description of billable items

Billing Item	Billing Products	Description
Pay-as-you-go	Content Delivery Network (CDN)	<p><b>Basic Fees:</b> Downstream traffic is billed by traffic or by bandwidth. Customers billed by traffic can purchase traffic packages in advance to offset future traffic costs. For details, see <a href="#">CDN Traffic Package</a>.</p> <p><b>Value-Added Fees:</b> Other fees such as "QUIC access request count" and "APK dynamic packaging" are not charged if not used. For details, see <a href="#">CDN Billing Explanation</a>.</p>

## CDN Traffic Package Instructions

A CDN traffic package is a prepaid resource package used to offset traffic consumption under the CDN traffic billing model. Classified by billing region, there are 9 different types of CDN traffic packages. For more details, see [CDN Traffic Package Introduction](#).

### CDN Traffic Package Deduction Restrictions

- CDN traffic packages can only be normally deducted when the billing method is **CDN Traffic Billing**. Customers billed by bandwidth need to change the billing method to traffic billing on the [CDN Service Overview Page](#) to use traffic packages.
- After the traffic package expires or is used up, CDN will automatically switch to pay-as-you-go. Traffic generated in each billing region after the traffic package expires or is used up will be billed according to the pay-as-you-go tiered pricing for each region. For details on pay-as-you-go traffic billing, see [Bill-by-Traffic](#).
- CDN traffic packages do not support cross-region deductions. For example, a CDN traffic package for China can only be used to offset traffic generated in the China billing region and cannot be used for traffic generated in other billing regions.
- Effective time of traffic package:**  
For hourly settlement customers, it is the whole hour of the purchase time. The traffic package cannot offset traffic costs incurred before the whole hour of the purchase time.

#### **Note:**

Note: Base conversion: 1 GB = 1,000 MB; 1 MB = 1,000 KB.

### Deduction example for traffic packages

- CDN user A, who uses hourly bandwidth settlement billing, has their main business distribution in China. Today, they changed the billing method to hourly traffic settlement and purchased a 100 GB CDN traffic package for China.
  - If the customer did not generate consumption on the day before changing the billing method, the new billing by traffic method will take effect today, and the purchased traffic package will also start effective deduction.
  - If consumption has already occurred on the day before changing the billing method, the consumption of that day will still be billed by bandwidth. The new billing by traffic method will take effect the next day, and the effective time of the purchased traffic package will align with the new billing method, starting to deduct from the next day.
  - When the CDN traffic package within China is used up, the traffic generated in the billing area within China will be billed according to postpaid tiered pricing.
- Overseas acceleration user B, who is billed by hourly traffic, has main business distribution in the United States and purchased a 100GB CDN traffic package for the Asia Pacific Zone 1.
  - The United States belongs to the North America Zone in the CDN billing area outside China. A North America Zone CDN traffic package needs to be purchased, as the Asia Pacific Zone 1 traffic package will not deduct the traffic generated in the United States. The traffic generated will be billed according to postpaid tiered pricing.

3. Enterprise Content Delivery Network (ECDN) user C, who is billed by hourly traffic, has main business distribution within China and purchased a 100GB CDN traffic package within China.

- CDN traffic packages can only be properly deducted for **traffic-billed CDN services** and cannot deduct traffic generated by ECDN services. User C is still billed postpaid by number of requests + excess traffic.

## CDN Traffic Package Deduction Order

If there are multiple traffic packages under your account, the deduction order will follow the expiration time from nearest to farthest. When the expiration times are the same, the deduction will follow the effective time from farthest to nearest.

### Deduction order example for traffic packages

- For example, if you currently have a 1TB CDN traffic package within China with an effective time of October 1, 2021, 00:00:00, and an expiration time of September 30, 2022, 23:59:59, it will be referred to as traffic package A.
- Another 10GB CDN traffic package within China with an effective time of September 1, 2022, 00:00:00, and an expiration time of September 30, 2022, 23:59:59, will be referred to as traffic package B;
- Another 100GB CDN traffic package within China with an effective time of August 15, 2022, 00:00:00, and an expiration time of September 14, 2022, 23:59:59, will be referred to as traffic package C;

The deduction order of the three traffic packages is: C first, then A, and finally B.

## CDN Traffic Package Automatic Renewal Instructions

CDN offers two automatic renewal modes: "renew upon usage or expiration" and "renew only upon expiration".

After enabling automatic renewal, if your account balance is sufficient, the system will automatically purchase a new resource package for you according to the automatic renewal rules, with the applicable region, traffic quota, and validity period consistent with the original CDN traffic package. For more details, see [CDN Traffic Package Automatic Renewal](#).

## CDN Traffic Package Refund Instructions

For a single account, not expired and unused CDN traffic packages are eligible for a refund. Go to [Traffic Package Management](#) and click **Refund** on the traffic package meeting conditions. For more details, see [CDN Traffic Package Refund](#).

# CDN Cache Configuration for Building WordPress Sites

Last updated: 2025-01-02 10:36:20

## Recommendations for Node Cache Validity Configuration Using WordPress Sites

- Resources under the /wp-admin directory for the backend login address need to be set to no-cache, otherwise, it will cause login-related resources to be cached and result in login errors. If there are other API-related resources, they also need to be set to no-cache.
- Resources with dynamic file extensions php;jsp;asp;aspx need to be set to no cache (CDN default cache rule);
- Files with html;js;css extensions are updated frequently and need to set cache time based on update frequency. It is recommended to set the cache time to 7 days and not to set force cache (if you need to proactively update the CDN node's cached resources before the cache expires, you can use the cache refresh feature to delete the specified URL or directory cache in advance);
- 30 days for all other files (CDN default cache rule).

## Adding Rules Based on the CDN Default Cache Rule

- Log in to the [CDN Console](#).
- Click **Domain Management** in the left menu to enter the domain management list;
- Select the domain to configure and click **Management** to enter the domain configuration page;
- Click **Cache Configuration** to switch to the cache configuration tab to view the node cache validity configuration;



节点缓存过期配置			
节点缓存过期配置是CDN服务器保存的一套针对用户文件的缓存策略，可降低回源率。如何设置节点缓存过期配置？ <a href="#">FAQ</a>			
规则优先级：列表中下方规则的优先级高于上方规则的优先级。			
类型	内容	缓存行为	操作
全部文件	全部文件	缓存30天	<a href="#">修改</a>   <a href="#">删除</a>
文件后缀	php;jsp;asp;aspx	不缓存	<a href="#">修改</a>   <a href="#">删除</a>

- Click **Add Rule**, set the type to directory, content to /wp-admin, cache option to no cache, and click **Yes**.



新增规则

类型: 文件目录

内容: /wp-admin

缓存选项: 不缓存

确定 取消

- Click **Add Rule**, set the type to file extension, content to html;js;css, cache option to cache, cache time to 7 days, force cache to no, and click **Yes**.

新增规则

类型	文件后缀
内容	html;js;css
缓存选项	缓存
缓存时间	- 7 + 天
强制缓存	<input type="radio"/> 是 <input checked="" type="radio"/> 否
<b>确定</b> <b>取消</b>	

7. According to the priority weight, the larger the value, the higher the priority. Click adjust priority, then drag the "/wp-admin" directory no cache rule" to the bottom to make this rule the highest priority.

类型	内容	缓存行为
全部文件	全部文件	缓存30天
文件后缀	php;jsp;asp;aspx	不缓存
文件目录	/wp-admin	不缓存
文件后缀	html;js;css	缓存7天

根据列表中配置项的顺序来确定优先级，列表底部的优先级大于列表顶部。

**保存** **取消**

8. The cache rules after adjustment are:

- All resources under the /wp-admin directory are not cached;
- Resources with html;js;css file extensions are cached for 7 days;
- Resources with php;jsp;asp;aspx file extensions are not cached;
- 30 days for all other files.

**新增规则** **调整优先级**  

类型	内容	缓存行为	操作
全部文件	全部文件	缓存30天	<a href="#">修改</a>   <a href="#">删除</a>
文件后缀	php;jsp;asp;aspx	不缓存	<a href="#">修改</a>   <a href="#">删除</a>
文件后缀	html;js;css	缓存7天	<a href="#">修改</a>   <a href="#">删除</a>
文件目录	/wp-admin	不缓存	<a href="#">修改</a>   <a href="#">删除</a>

共 4 条 10 条 / 页 1 / 1 页

# URL Authentication

Last updated: 2025-01-02 10:36:32

## Business Scenario

To prevent URL theft of CDN resources resulting in high traffic, use URL authentication method to encrypt CDN resources to prevent theft.

## Specific Requirements

Configure URL Authentication Domain: `www.qcdntest.cn`

Test Resource Access Path: `/test.jpg`

Authentication Key: `dimtm5evg50ijsx2hvuwyfoiu65`

Signature Parameter: `sign`

Validity Period: 150s

Authentication Range: Specified File Suffix Authentication

File Suffix: `jpg;html;css`

## Configuration Steps

1. In the console menu bar, select **Domain Management**, click **Manage** on the right side of the domain to enter the domain configuration page, and find the authentication configuration in **Access Control**. By default, the authentication configuration is



disabled:

2. Turn on the configuration status, a configuration box will pop up to enter the configuration items. The authentication mode can be selected from four modes: TypeA, TypeB, TypeC, and TypeD. Each mode has a different access URL format. The URL formats for each mode are as follows (the access URL cannot contain Chinese characters)



**TypeA:** `http://DomainName/Filename?sign=timestamp-rand-uid-md5hash`

**TypeB:** `http://DomainName/timestamp/md5hash/FileName`

**TypeC:** `http://DomainName/md5hash/timestamp/FileName`

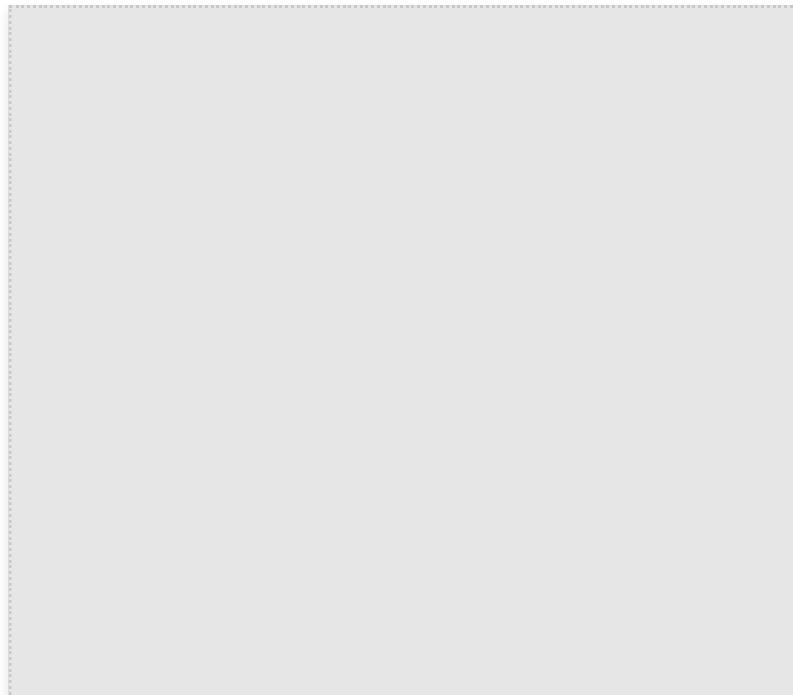
**TypeD:** `http://DomainName/FileName?sign=md5hash&t=timestamp`

**Field description**

- DomainName: CDN domain;
- Filename: resource access path;
- rand: A random string consisting 0–100 characters ([0–9], [a–z], [A–Z]);
- uid: 0
- timestamp: TypeA uses a decimal integer positive number Unix timestamp, TypeB uses a decimal (YYYYMMDDHHMM) format, TypeC uses a hexadecimal (Unix timestamp), TypeD can use either decimal or hexadecimal (Unix timestamp);
- md5hash: MD5 format: TypeA (file path–timestamp–rand–uid–custom key), TypeB (custom key + timestamp + file path), TypeC (custom key + file path + timestamp), TypeD (custom key + file path + timestamp);

### 3. Parameter Settings

4. Fill in the authentication key, signature parameter, and validity period into the corresponding parameters.



### 5. Scope of Authentication Configuration

鉴权配置

×

1 选择模式 > 2 设置参数 > 3 配置鉴权对象

鉴权范围  所有文件  指定文件后缀鉴权  指定文件后缀不鉴权

文件后缀

请输入文件后缀名, 用;分隔, 例如: jpg;html;css

[上一步](#) [保存](#)

Authenticate the authentication object according to

business needs. It is recommended to choose authentication for specified file extensions and authenticate all cached static file extensions.

## Test Verification

This test uses TypeA mode for verification. For tests of other modes, refer to the above steps for configuration. Test time: June 27, 2022, 11:30 Test URL: <http://www.qcdntest.cn/test.jpg>

## Verification Scenario One

With authentication parameters, verify return result. Open the authentication calculator, fill in the parameters, and obtain authenticated URL as follows (if accessed via https, manually adjust https):

<http://www.qcdntest.cn/test.jpg?sign=1656300600-FnyigRo7yny-0-3276ffbd30dc974ed955d7db761653a> Execute command:

```
curl http://www.qcdntest.cn/test.jpg?sign=1656300600-FnyigRo7yny-0-3276ffbd30dc974ed955d7db761653a -i
```

```
C:\Users\██████████→curl http://www.qcdntest.cn/test.jpg?sign=1656300600-FnyigRo7yny-0-3276ffbd30dc974ed955d7db761653a -i
HTTP/1.1 200 OK
Server: JSP3/2.0.14
Date: Mon, 27 Jun 2022 03:29:36 GMT
Content-Type: image/jpeg
Expires: Wed, 27 Jul 2022 03:24:03 GMT
ETag: b6ac874807b0ed62ceeb07ff7e286fc4
Age: 333
Access-Control-Allow-Origin: *
Ohc-Cache-HIT: xiangtcm93 [4], qdcmcache93 [1]
Ohc-Response-Time: 1 0 0 0 0 0
X-Cache-Lookup: Cache Miss
X-Cache-Lookup: Hit From Inner Cluster
Accept-Ranges: bytes
X-Cache-Lookup: Cache Miss
Last-Modified: Sun, 04 Jan 1970 00:00:00 GMT
Content-Length: 66687
X-NWS-LOG-UUID: 6938193467015876518
Connection: keep-alive
X-Cache-Lookup: Hit From Inner Cluster
```

The result with authenticated URL returns a 200 status code, indicating the configuration is effective.

## Verifying Scenario Two

Without authentication parameters, verify return result. Use a URL without authentication parameters to see if the test domain can be accessed normally. Execute command:

```
curl http://www.qcdntest.cn/test.jpg -i
```

```
C:\Users\██████████→curl http://www.qcdntest.cn/test.jpg -i
HTTP/1.1 403 Forbidden
Server: Lego Server
Date: Mon, 27 Jun 2022 03:27:28 GMT
X-Cache-Lookup: Return Directly
Content-Length: 0
X-NWS-LOG-UUID: 2846729706579539991
Connection: keep-alive
X-Cache-Lookup: Hit From Inner Cluster
```

A URL without authentication parameters returns a 403 status code.

## Verifying Scenario Three

Use expired authentication URL parameters, verify return result

Expired authentication URL:

<http://www.qcdntest.cn/test.jpg?sign=1656300600-FnyigRo7yny-0-3276ffbd30dc974ed955d7db761653a>

Execute command:

```
curl http://www.qcdntest.cn/test.jpg?sign=1656300600-FnyigRo7yny-0-3276ffbd30dc974ed955d7db761653a -i
```



With expired authenticated URL, returns a 403 status code.

# Hotlink protection

Last updated: 2025-01-02 10:36:42

## Business Scenario

To prevent high traffic caused by URL resource abuse, use hotlink protection to encrypt resources and prevent abuse.

## Specific Requirements

Test URL: `http://www.qcdntest.cn/test.jpg`.

Hotlink protection allowlist: `test.qcdntest.cn`.

Empty referer option: Do not allow empty referer access;

## Configuration Steps

1. In the console menu bar, select **Domain Management**, click **Management** on the right side of the domain to enter the domain configuration page, and find hotlink protection configuration in **Access Control**. By default, the authentication configuration is



disabled:

2. Turn on the configuration status, and a configuration box will pop up to enter the configuration items.



3. Configure hotlink protection blocklist or allowlist  
For example, add `test.qcdntest.cn` to the allowlist.

防盗链类型  白名单  黑名单

test.qcdntest.cn

还可以输入 399 个

空referer选项  允许空referer访问 ?

## Test Verification

This test uses the hotlink protection allowlist mode for verification. For tests in other modes, refer to the above steps for configuration.

Test URL: <http://www.qcdntest.cn/test.jpg>

Hotlink protection allowlist: test.qcdntest.cn

Empty referer option: Do not allow empty referer access.

### Verification Scenario One

Test empty referer access and verify the returned result.

Execute command:

```
curl http://www.qcdntest.cn/test.jpg -i
```

```
C:\Users\_____>curl http://www.qcdntest.cn/test.jpg -i
HTTP/1.1 403 Forbidden
Content-Length: 0
X-NWS-LOG-UUID: 13915068123913407513
Connection: keep-alive
Server: Logo Server
Date: Mon, 27 Jun 2022 03:46:24 GMT
X-Cache-Lookup: Return Directly
```

Return 403 status code, the configuration of not allowing empty referer access takes effect.

### Verifying Scenario Two

Access with allowlist referer and verify the returned result.

Execute command:

```
curl -e http://test.qcdntest.cn http://www.qcdntest.cn/test.jpg -i
```

```
C:\Users\_____>curl -e http://test.qcdntest.cn http://www.qcdntest.cn/test.jpg -i
HTTP/1.1 200 OK
Etag: b6ac874807b0ed62ceeb07ff7e286fc4
Server: JSP3/2.0.14
Date: Mon, 27 Jun 2022 03:29:36 GMT
Content-Type: image/jpeg
Expires: Wed, 27 Jul 2022 03:24:03 GMT
Age: 333
Access-Control-Allow-Origin: *
Ohc-Cache-HIT: xiangtcm93 [4], qdcmcache93 [1]
Ohc-Response-Time: 1 0 0 0 0 0
Accept-Ranges: bytes
X-Cache-Lookup: Cache Hit
Last-Modified: Sun, 04 Jan 1970 00:00:00 GMT
Content-Length: 66687
X-NWS-LOG-UUID: 15768672641043049376
Connection: keep-alive
X-Cache-Lookup: Hit From Inner Cluster
```

Return 200 status code, the allowlist configuration takes effect.

### Verifying Scenario Three

Access with non-allowlist referer and verify the returned result.

Execute command:

```
curl -e http://test-test.qcdntest.cn http://www.qcdntest.cn/test.jpg -i
```

```
C:\Users\111111>curl -e http://test-test.qcdntest.cn http://www.qcdntest.cn/test.jpg -i
HTTP/1.1 403 Forbidden
Content-Length: 0
X-NWS-LOG-UUID: 13449902744105233581
Connection: keep-alive
Server: Lego Server
Date: Mon, 27 Jun 2022 03:52:39 GMT
X-Cache-Lookup: Return Directly
```

Return 403 status code, non-allowlist referer access denied.