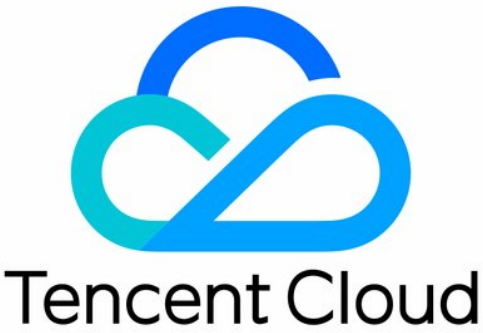
Content Delivery Network

Use Cases

Product Documentation



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Use Cases
Accelerating Resources on COS with CDN
Scenario

Last updated：2023-04-24 10:23:52

If your website is deployed on your on-premise server, during the peak service hours, users are likely to experience slow image loading or loading problems due to server performance limits. To solve this problem, you can store static files on Tencent Cloud COS, and then connect your website to Tencent Cloud CDN to accelerate distribution of files stored on COS.

Recommended Configurations

See below for the sample configuration on CDN and COS:

CDN configurations

- Domain: `www.qcdntest.cn`
- Target: Users in Chinese mainland
- Origin 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
- Daily bandwidth cap: 5 Gbps
- Bandwidth cap estimation: 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 Mbps * 40 = 2,000 Mbps. Counting in the bandwidth requirements for busty traffic, we recommend setting the bandwidth cap to 5,000 Mbps.

COS configurations

- Bucket region: Guangzhou
- Bucket name: pic
- Access permission: Private read and write
- Resource type: Image files, with an average file size of 500 KB.

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Step 1. Creating a COS bucket

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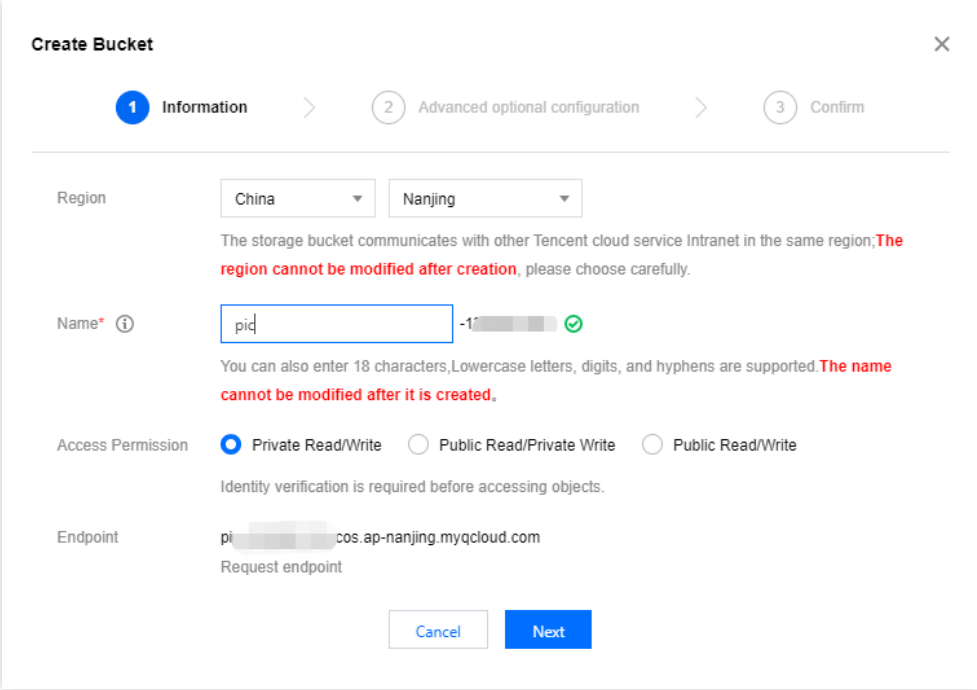
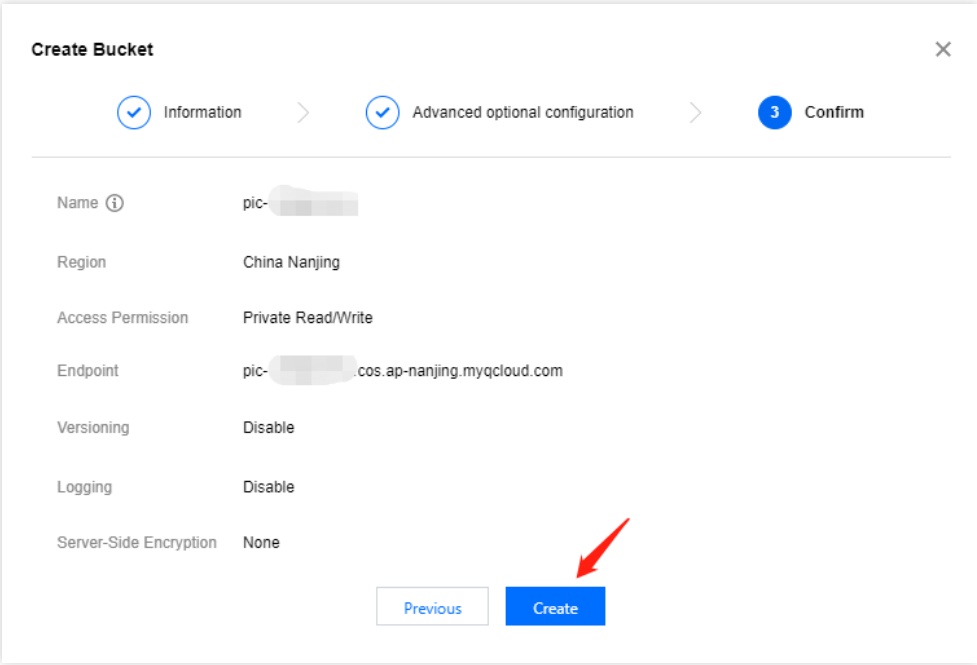
To create a COS bucket, you need to activate Tencent Cloud COS.

1. Complete the basic information according to your needs and click **Next**.



2. Complete the **Advanced optional configuration** and Click **Next**. Check the information and click **Create**.



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Step 2. Uploading Files to a Bucket

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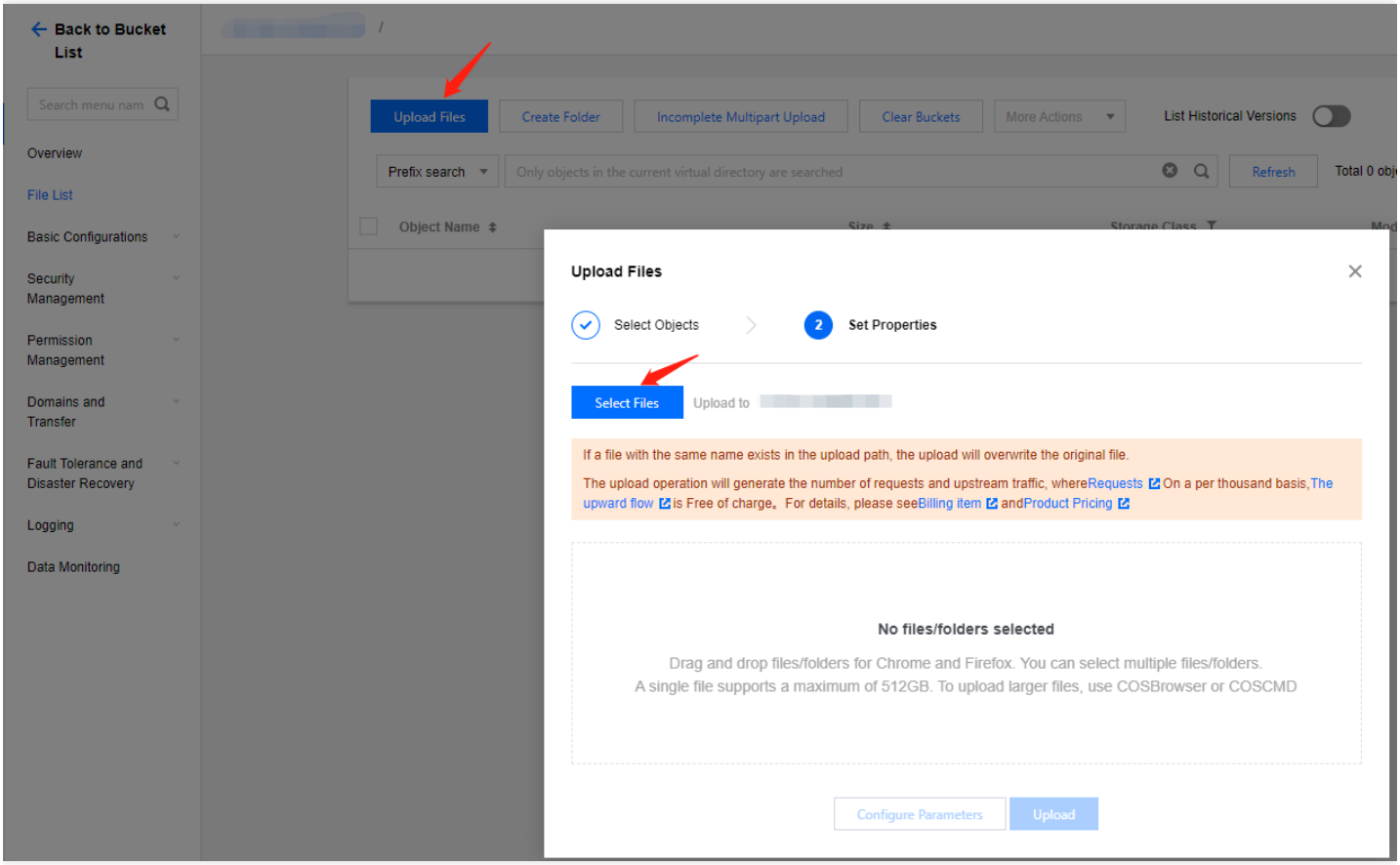
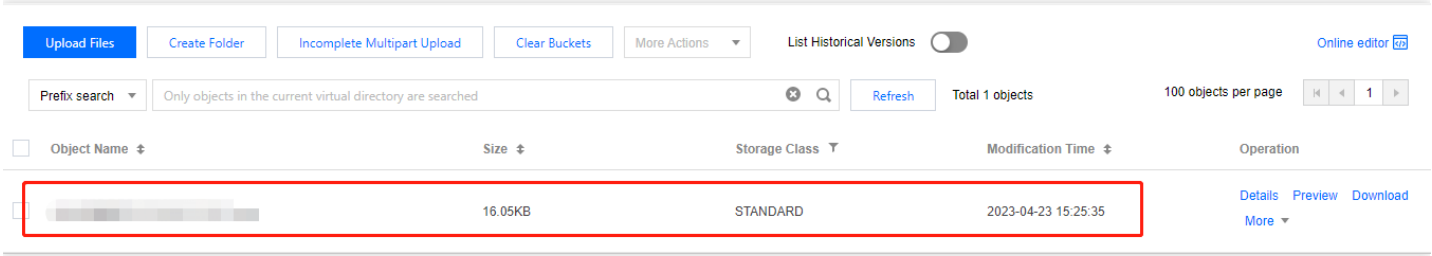
On the details page of the created bucket, click **Upload Files**



Then you can check the uploaded files in the file list of the bucket.



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Step 3. Configuring a Domain Name

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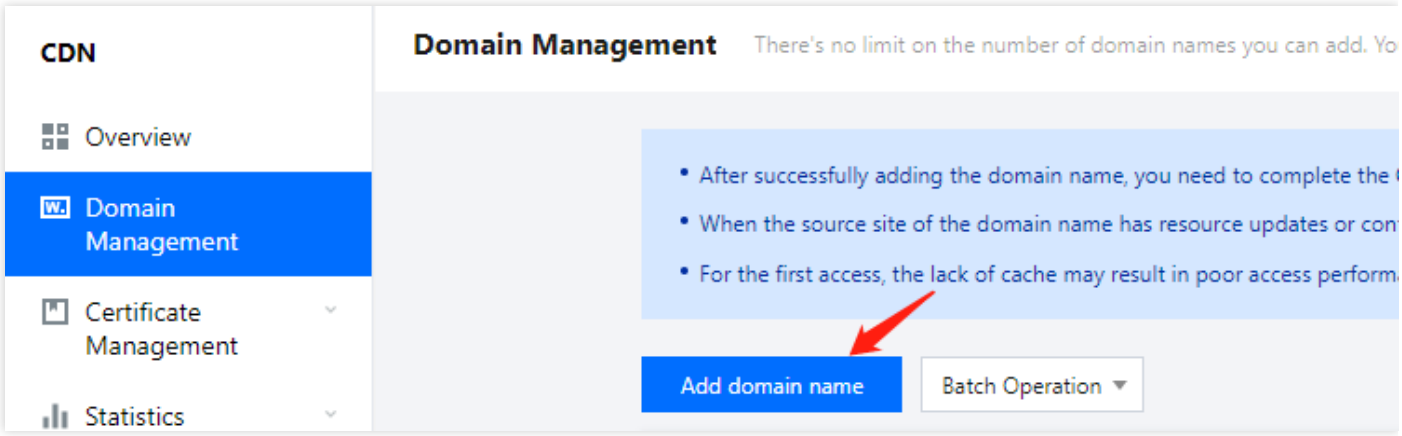
1. Log in to the CDN console, click **Domain Management** on the left sidebar to enter the domain name management page, and click **Create a Distribution**.



2. Domain name configuration

   Configure your website as below:

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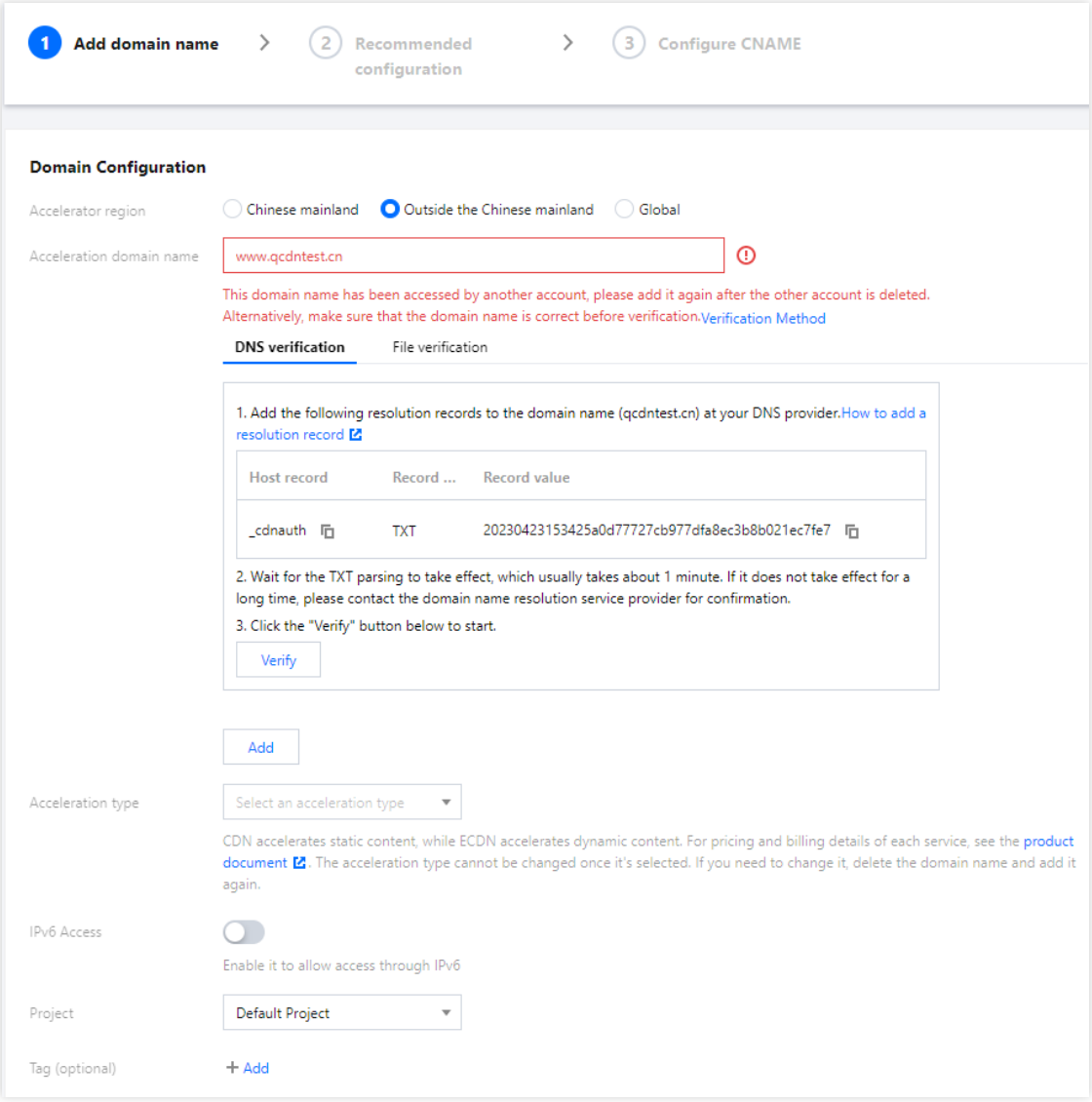
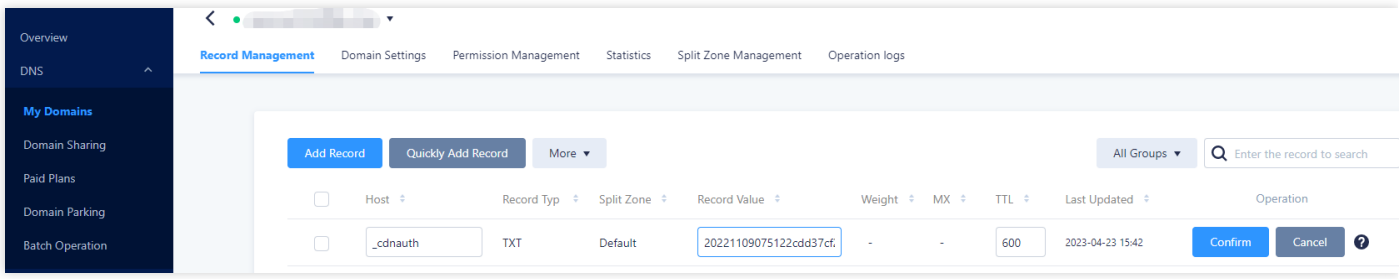


When you add a domain name for the first time, add a wildcard domain name, or add a domain name that is already added by another account, you must verify your ownership of the domain name, as shown in the preceding figure. If your DNS service provider is Tencent Cloud, you can configure a TXT record for the primary domain name based on the following figure and verify the domain name ownership. For more information, see Domain Name Ownership Verification.



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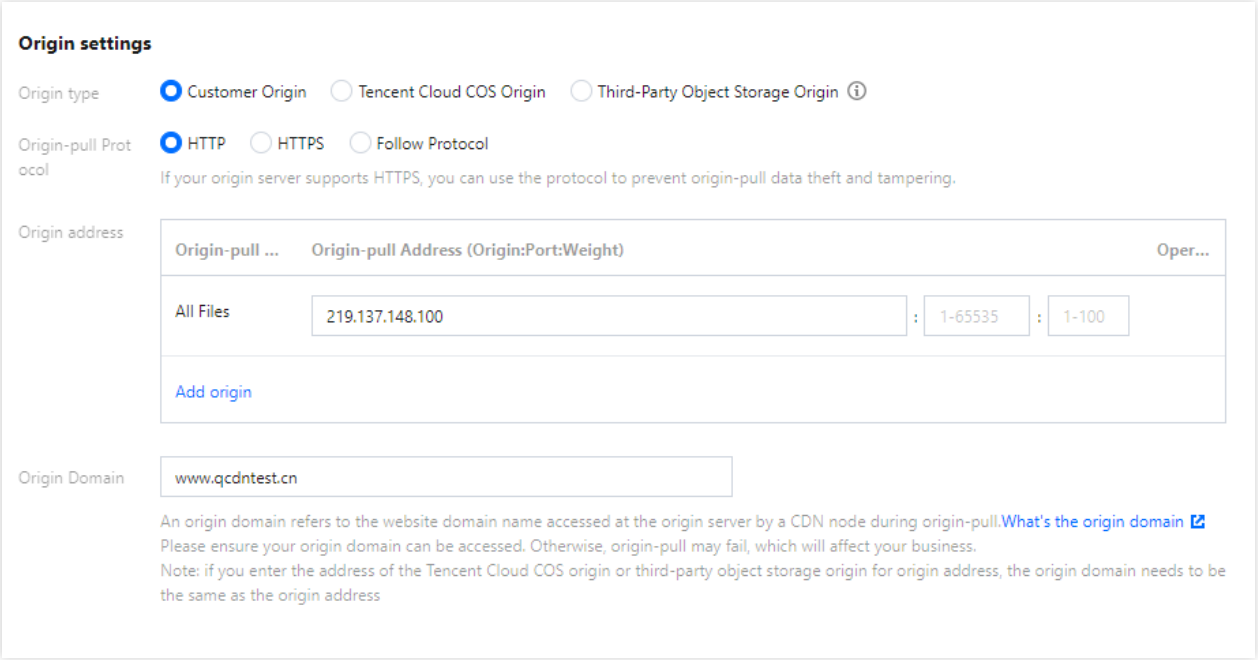
3. Origin configuration

The origin server stores the resources of your website. When a client requests resources from a CDN node but the requested resources are not cached on the node, the node reads the origin server settings configured for the domain name, pulls the resources from the origin server, and caches the resources on the node. Therefore, it is important to correctly configure the origin server settings to ensure that CDN pulls the requested resources from the origin server.

Configure the origin server settings based on the following example:



Configuration	Description
Origin server type	The origin server of your website is the server that maintains the stable business operation. If you own the server, select **Customer Origin**.
Origin-pull Protocol	If you select **Customer Origin** for **Origin type**, only HTTP origin-pull is supported and you can select only **HTTP**. If your origin server supports other origin-pull protocols, you can select a protocol as needed.

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Configuration	Description
Origin server address	**Enter the IP address of the origin server.** • You can configure multiple origin server addresses, and then CDN will perform round-robin origin-pull. • You can also configure the port (0 - 65535) and weight (1 - 100), so that the origin server address is in the format of `origin server IP address:port:weight`. You can also leave the port unspecified, so that the origin server address is in the format of `origin server IP address::weight`. At present, the HTTPS protocol supports only port 443. • You can configure a domain name as the origin server, which must be different from the CDN acceleration domain name.
Host	• Definition: This configuration item refers to the domain name accessed on the origin server by a CDN node during origin-pull. • Differences between **Origin address** and **Origin Domain**: 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. • Configuration instruction: 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.

4. Click **OK**. Note that Tencent Cloud CDN allows you to use recommended configurations based on the acceleration type. For more information, see Configuring CDN from Scratch. If you do not want to set the recommended configurations at the moment, you can click **Back** to return to the domain name management list.

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Step 4. Verifying the Domain Name

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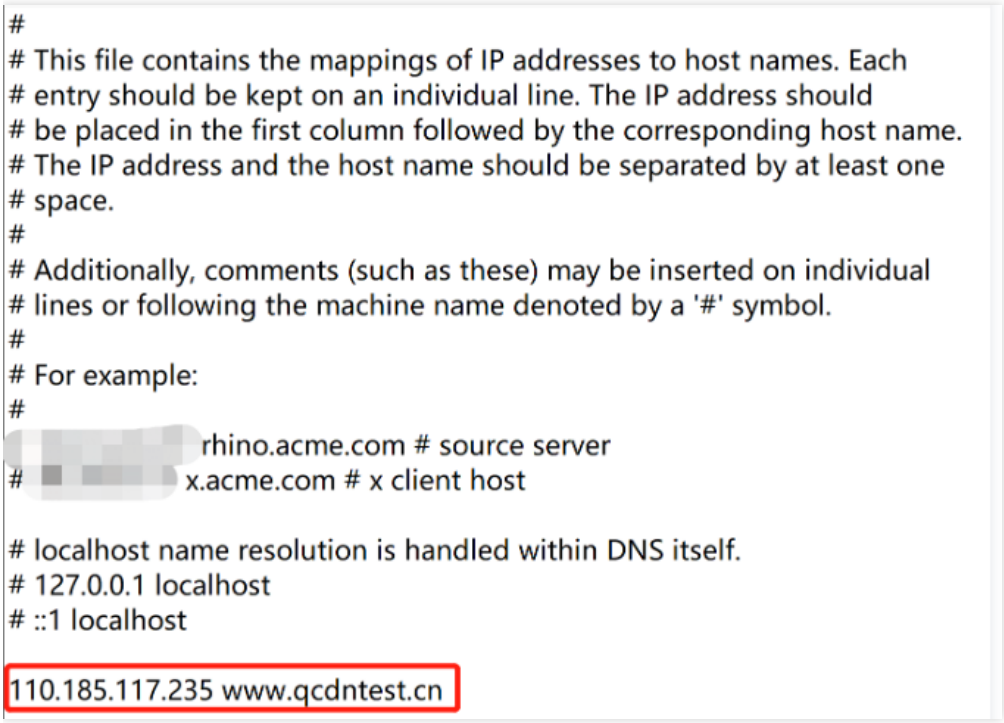
After you add and configure a domain name in the CDN console, we recommend that you test the connection by using the following method.

1. Check the CNAME domain, `www.qcdntest.cn.cdn.dnsv1.com.cn`
2. Obtain the cache node IP.
   Open a command window and run the following command. The returned IP address is the IP address of the CDN acceleration node.
   `ping www.qcdntest.cn.cdn.dnsv1.com.cn`
3. Configure the `hosts` file.
   Add the CDN cache node IP (110.185.117.235) and the accelerated domain name (`www.qcdntest.cn`) obtained in Step 2 to your local `hosts` file in the format of “110.185.117.235 www.qcdntest.cn”.
   On Windows, the `hosts` file is stored in this directory: C:\Windows\System32\drivers\etc. The following figure shows an example:



On macOS, open the command window, enter `sudo vi /etc/hosts`, press the Enter key, enter the password, and press the Enter key again. After you open the `hosts` file, enter `i` to start editing the file. The content and format are the same as instructed for Windows users. 4. Access the domain name. If the response is the same as that of the origin server, the access succeeds. ![](https://staticintl.cloudcachetci.com/yehe/backend-

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news/vGCe808_%E4%BC%81%E4%B8%9A%E5%BE%AE%E4%BF%A1%E6%88%AA%E5%9B%BE_20230423155227.png)

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Step 5. Configuring the CNAME

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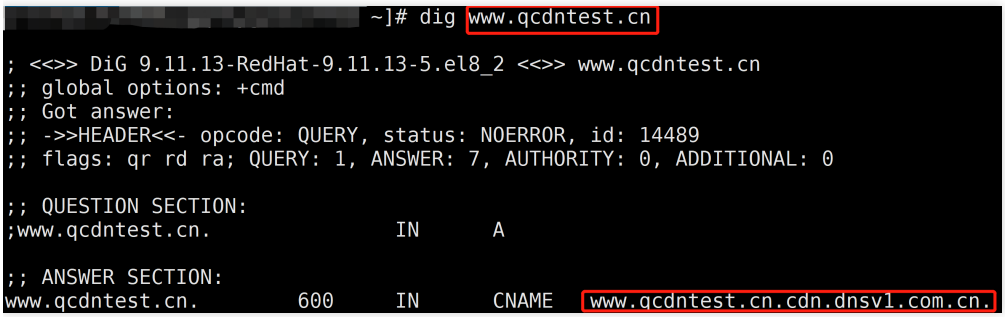
After connecting your acceleration domain name to CDN, CDN assigns a CNAME record to the domain name. You must configure the CNAME record at your domain name provider. The CDN service will be available after the configuration takes effect. This document provides an example that shows you how to configure a CNAME record. For more information, see CNAME Configuration.

You can run the `nslookup` or `dig` command to verify whether the configuration has taken effect. If yes, you can hover over the icon next to the CNAME domain name to view a tooltip, which indicates that the CDN service is in normal operation.

For example, you can run the `nslookup www.qcdntest.cn` or `dig www.qcdntest.cn` command. If the CNAME domain name is returned, the Tencent Cloud CDN service in in operation.



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Step 6. Monitoring the Live Environment

Last updated：2023-06-29 17:45:01

You can check the monitoring data of the domain name in the CDN console under **Statistics** - **Real-time Monitoring**. Increasing number of non-2XX status codes indicates that service may be abnormal. To avoid affecting the live service, it is recommended that you first switch the domain name resolution back to the origin, troubleshoot the issue, and then switch the CNAME back to Tencent Cloud.

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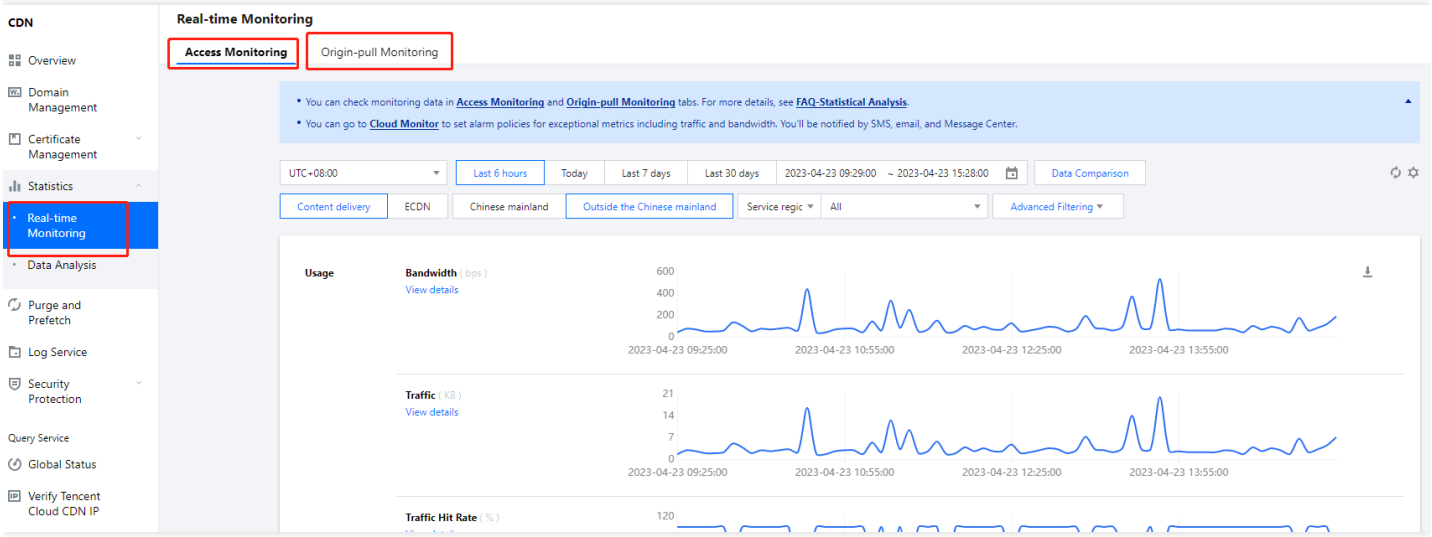

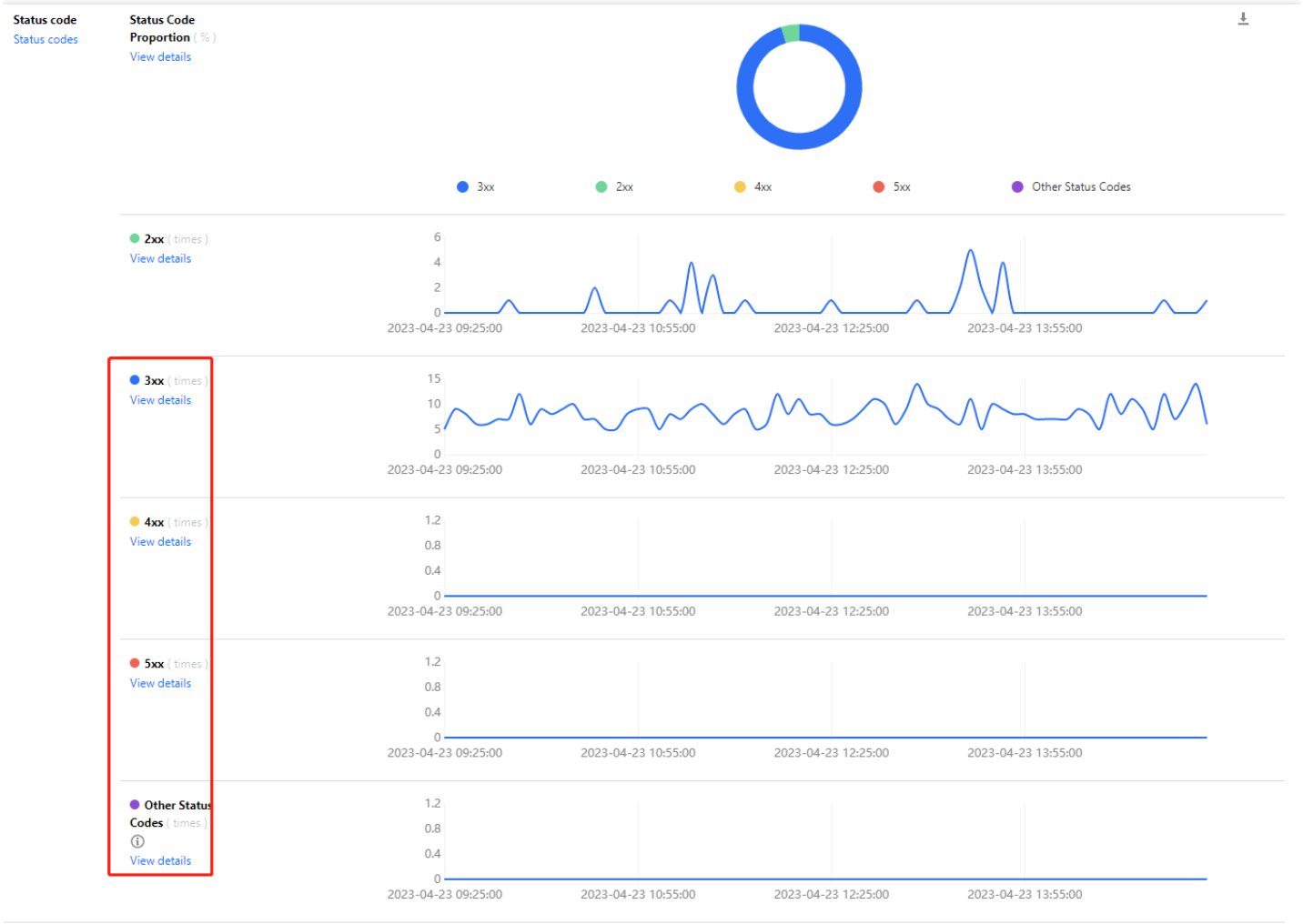

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Related Documents

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CDN provides advanced features to enhance the acceleration performance and access security.

Click **Manage** in the **Operation** column of the domain name.

Use Case	Description	Specification
Increase cache hit rate	Proper cache policies can effectively improve the cache hit rate. We recommend that you perform the following operations: • Set a cache validity period of more than 30 days for static files that are rarely updated, such as images and texts. • Set a cache validity period based on your business requirements for frequently updated files, such as JS and CSS files. • Do not cache general dynamic files, such as PHP, JSP, ASP, and ASPX files.	Node Cache Configuration
	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.	Cache Key Rule Configuration
Increase access security	You can enable HTTPS access for your website. • If you already have a certificate, you can directly upload it. • You can also go to SSL Certificate Management to apply for a free DV SSL certificate issued by TrustAsia.	HTTPS Configuration Guide
	You can enable hotlink protections by using the following configurations: IP allowlist/blocklist, referer allowlist/blocklist, UA allowlist/blocklist, and URL authentication.	Access Control
Avoid high bills	You can enable related protections to help prevent extra costs for extensive bandwidth and traffic caused by malicious attacks and hotlinking.	Preventing High Bills

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