CDN

Getting Started

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HUAWEI

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Contents

1 Domain Name Requirements

Table 1-1 lists requirements for domain names that require CDN acceleration.

Table 1-1 Domain name requirements

Service Area	Requirement
Chinese mainland	• Your HUAWEI ID has completed real-name authentication. • The domain name has been licensed by the Ministry of Industry and Information Technology (MIIT) and the Internet Content Provider (ICP) license is still valid. • The domain name has passed the content review.
Outside Chinese mainland	The domain name has passed the content review.
Global	• Your HUAWEI ID has completed real-name authentication. • The domain name has been licensed by the MIIT and the ICP license is still valid. • The domain name has passed the content review.

NOTE

Outside Chinese mainland indicates countries and regions other than the Chinese mainland, including Hong Kong (China), Macao (China), and Taiwan (China).

CDN does not support the access of websites that violate related laws and regulations, including but not limited to:

- Websites that contain pornographic content or content related to gambling, illegal drugs, frauds, or infringement
- Gaming websites that run on illegal private servers
- Websites that provide pirated games/software/videos

- P2P lending websites
- Unofficial lottery websites
- Unlicensed hospital and pharmaceutical websites
- Inaccessible websites or websites that do not contain any substantial information

NOTE

- If your domain name content violates related laws and regulations, you shall bear the related risks.
- If any pornographic content or content related to gambling, illegal drugs, or frauds is found on your domain name, the domain name and other domain names that use the same origin server will be deleted from CDN and can no longer access CDN. Acceleration domain name quota of the account will be reduced to 0.
- Whether a domain name needs to be licensed does not depend on the region of the domain name provider or the area where the website server is. All that matters is the service area of your domain name. If your service area is **Chinese mainland** or **Global**, your domain name must be licensed by the MIIT before being added as an acceleration domain name.
- There is no limit on the DNS provider.
- Root domain name and common domain names need to be added to the CDN console separately for acceleration.

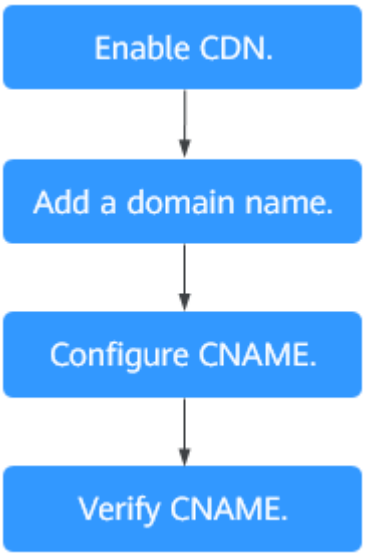
2 Overview

Quick Start

This section describes how to use CDN and how to select CDN billing options. If you are using Huawei Cloud CDN for the first time, you can quickly enable CDN by following the procedure described in this section to accelerate your content delivery.

Figure 2-1 describes the process of using CDN.

Figure 2-1 Process



For details about each step, see Table 2-1.

Table 2-1 Access procedure

No.	Step	Description
1	Enabling CDN	Enable CDN and select a billing option.

No.	Step	Description
2	**Adding a Domain Name**	If you want to use CDN to accelerate your site, add the domain name of the site and configure origin details. CDN caches origin content on points of presence (PoPs) so that your content loads faster.
3	**(Optional) Testing the Domain Name**	Test your domain name before adding a CNAME record to the domain's DNS records to ensure that your domain configurations are correct.
4	Configure a CNAME record. • **Adding a CNAME Record on Huawei Cloud DNS**	If you have added a domain name, the system automatically assigns a CNAME record to it. The CNAME record cannot be accessed directly. Add this CNAME record to your domain's DNS records and point the domain name to it. Then requests for your domain name will be redirected to CDN PoPs for acceleration. The CNAME configuration method varies depending on the DNS provider. Select one based on your needs.
5	**Checking Whether the CNAME Record Has Taken Effect**	The length of time before the CNAME record takes effect depends on the DNS provider. You can check whether the CNAME record has taken effect by yourself.

Billing Options

When buying CDN, you can choose to be billed by traffic or peak bandwidth. For details about the billing options and examples, see **Billing**.

By Traffic

If you choose traffic-based billing:

- You can be billed by the traffic used per hour.
- You can buy a CDN traffic package to get more savings. For details about traffic packages, see **Prepaid Traffic Packages**.

By Peak Bandwidth

You are billed by the daily peak bandwidth.

3 Enabling CDN

Enable CDN before you use it. This section describes how to enable CDN.

Prerequisites

- You have registered a HUAWEI ID and have completed real-name authentication.

  NOTE

  Huawei Cloud (International) users need to complete real-name authentication in the following scenarios:

  - According to the laws and regulations in the Chinese mainland, users who purchase and use cloud services on Huawei Cloud PoPs in the Chinese mainland must complete real-name authentication.
  - When purchasing a cloud service, you need to complete real-name authentication if the selected region includes Chinese mainland.

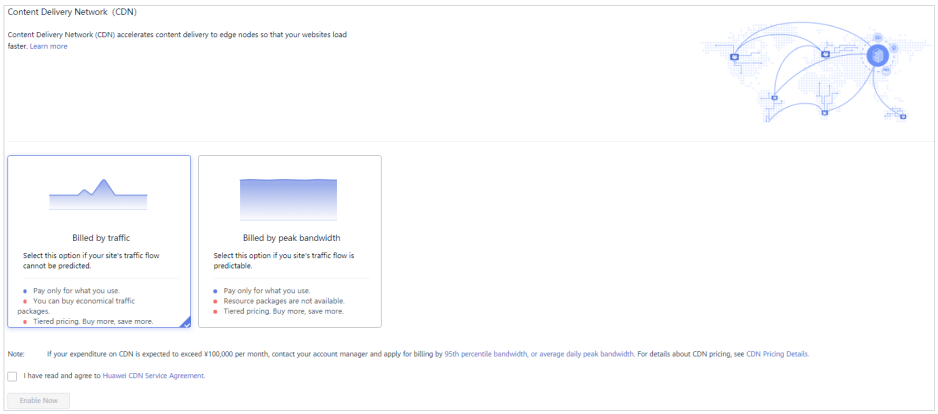
- Before enabling CDN, buy a traffic package or make sure your account balance is greater than ¥999. You can top up your account in the **Billing Center**.
- By default, traffic-based billing is enabled for V0 and V1 customers. To enable peak bandwidth-based billing, submit a service ticket.

Procedure

1. Log in to the **Huawei Cloud console**. Choose **Service List** > **Content Delivery & Edge Computing** > **Content Delivery Network**.
2. Click **Enable Now**.

3. Select a billing option. Read and agree to the service statement. Click **Enable Now**.

Figure 3-1 Selecting a billing option



4 Adding a Domain Name

If you want to use CDN to accelerate your business, add the domain name of your site to CDN. CDN caches origin content on PoPs so that your content loads faster.

Procedure

Before adding a domain name, ensure that the domain name complies with the requirements described in **Domain Name Requirements**.

1. Log in to the **Huawei Cloud console**. Choose **Service List** > **Content Delivery & Edge Computing** > **Content Delivery Network**.

   The CDN console is displayed.
2. In the navigation pane, choose **Domains**.
3. On the **Domains** page, click **Add Domain Name** and specify domain parameters.

Figure 4-1 Adding a domain name

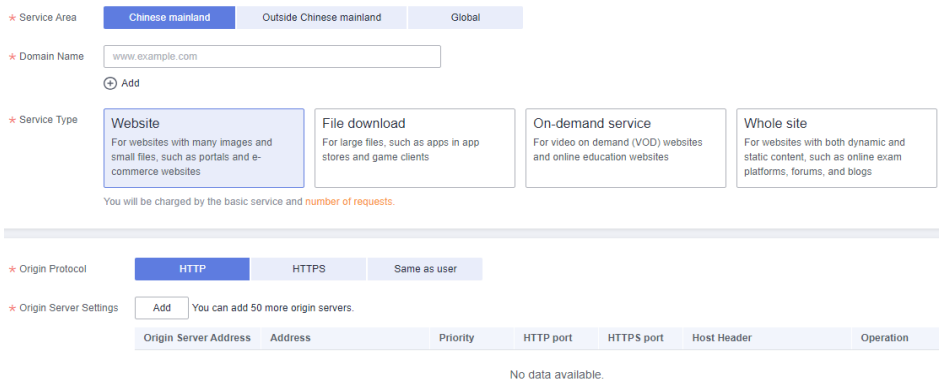


Table 4-1 Parameter description

Parameter	Item	Description
Domain Name	-	• A domain name can contain up to 75 characters, including letters, digits, hyphens (-), and periods (.). • You can add up to 100 domain names under each account. • CDN does not allow access from websites containing illicit content. The existing domain names connected to CDN are reviewed regularly. If a domain name involves any violations, the CDN acceleration service will be suspended for the domain name and other domain names in your account. • If a domain name has been in the **Disabled** or **Rejected** state for more than 120 days, the system deletes records associated with this domain name. • CDN acceleration for domain names that have not been accessed for more than 180 days will be automatically disabled. • An acceleration domain name must be unique. • You can add a domain name including a wildcard (*). For example, if you add ***.test.com** to CDN as an acceleration domain name and have it resolved to the CNAME provided by CDN, all of the level-2 domain names under ***.test.com**, such as **a.test.com**, will enjoy CDN acceleration by default. However, level-3 domain names (such as **b.a.test.com**) would not. 1. If you add a wildcard to a domain name for a particular account, you cannot add any of the level-2 domain names under that domain name to other accounts. 2. You will be billed for the acceleration service provided to all of the level-2 domain names under a wildcard domain name. If there are multiple level-2 domain names, billing will be based on the traffic generated by the domain name with the wildcard, not on each of the level-2 domain names.
Enterprise Project	-	This parameter is only available if the Huawei Cloud Enterprise Project Management Service is enabled. For details, see **Enterprise Management User Guide**.
Service Area	Global	CDN schedules access requests from users around the world to the optimal PoP nearby. The domain name must be licensed by the Ministry of Industry and Information Technology (MIIT).

Parameter	Item	Description
	Chinese mainland	CDN schedules access requests from users around the world to PoPs in the Chinese mainland. The domain name must be licensed by the MIIT.
	Outside Chinese mainland	CDN schedules access requests from users around the world to PoPs outside the Chinese mainland. The domain name does not need to be licensed by the MIIT.
Service Type	Website	CDN is perfect for web portals, e-commerce platforms, news apps, and user generated content (UGC)-focused apps. The cache format includes but is not limited to .zip, .exe, .wmv, .gif, .png, .bmp, .wma, .rar, .jpeg, and .jpg.
	File download	CDN is useful for download clients, game clients, app stores, and websites that provide download services based on HTTP or HTTPS.
	On-demand service	CDN accelerates delivery of on-demand services, such as online education, video sharing, music or video on demand, and other audiovisual content.
	Whole site	CDN is a good option for websites that consist of both dynamic and static content and for sites that involve a large number of ASP, JSP, or PHP requests.
Origin Protocol	-	Protocol used by CDN PoPs to pull content from the origin server. • **HTTP** • **HTTPS** • **Same as user**: The origin protocol is the same as the client access protocol. For example, if a client accesses CDN using HTTP, CDN also uses HTTP for origin pull.

4. In the origin server settings area, click **Add** to add an origin server for the domain name.

Figure 4-2 Adding an origin server

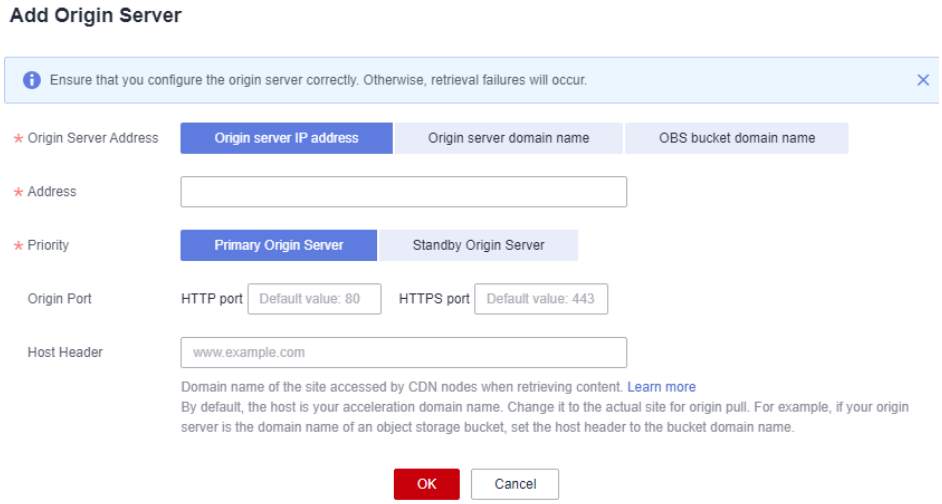


Table 4-2 Parameters

Parameter	Description
Origin Server Address	**Origin server IP address** • CDN PoPs access the IP address directly to pull origin content. • If multiple IP addresses are configured, CDN uses **load balancing** to pull content from the origin server.
	Origin server domain name • An origin domain cannot be the same as an acceleration domain name. • You can also enter the domain name of an object storage bucket in this field. **NOTE** • **Private buckets** cannot be used as origin servers. • If you use an object storage bucket as your origin server, object storage service will charge the CDN origin pull traffic based on the billing standard for outgoing Internet traffic.

Parameter	Description
	OBS bucket domain name Select an OBS bucket domain name under your account or customize one. OBS charges the CDN origin pull traffic based on the billing standard for outgoing Internet traffic. If you set a bucket of OBS 3.0 or a later version as the origin server, you can purchase OBS pull traffic packages to deduct origin pull traffic. For details, see **OBS Billing for CDN Acceleration**. **Notes:** 1. If your OBS private bucket is unsuitable as an origin for your domain name, do not set the private bucket as the origin server. 2. If a custom OBS bucket is used as the origin server, the origin domain name must end with .myhuaweicloud.com or .myhuaweicloud.cn. 3. If an OBS private bucket is configured as an origin server, enable **OBS Authorization** and select the **Private bucket** checkbox. Otherwise, origin pull will fail. **NOTE** If you use CDN for the first time, **you cannot set an OBS private bucket as the origin server when you add your first domain name.** After adding the domain name, you can enable OBS authorization and then change the origin server to an OBS private bucket. 4. To use a **custom OBS private bucket** as the origin server, configure a policy for the private bucket. For details, see **Configuring a Policy for a Custom OBS Private Bucket**. 5. If you have enabled **static website hosting** for your OBS bucket, select the **Static website hosting** checkbox when adding a domain name. In this way, the list of all files in the bucket will not be displayed when users access the bucket.
Address	Address accessed by CDN PoPs during origin pull.
Bucket	This parameter is mandatory when **Origin Server Address** is set to **OBS bucket domain name**. • **Public bucket**: public read. All users can read objects in the bucket. • **Private bucket**: Only users granted permissions by the ACL can access the bucket.
Priority	The origin server can be primary or standby. The priority of the primary origin server is higher than that of the standby origin server. CDN PoPs preferentially pull content from the primary origin server. If the primary origin server is faulty, CDN PoPs pull content from the standby origin server. • Configure at least one primary origin server.

Parameter	Description
Origin Port	Port number for CDN PoPs to pull content. By default, the HTTP port is 80 and the HTTPS port is 443. • If **Origin Server Address** is set to **OBS bucket domain name**, the port numbers cannot be changed.
Host Header	A host is specified in the HTTP request header. It is the domain name of the site accessed by CDN PoPs when CDN pulls content from the origin server. CDN obtains resources from the corresponding site based on the host details during origin pull. After a domain name is added, the default host will be the domain name. Change the host in a timely fashion if either of the following conditions is met: • If you select **Origin server domain name** for **Origin Server Address** and enter the domain name of an object storage bucket, set the host to the domain name of the object storage bucket. • If you want CDN to pull content from a custom domain name, specify the host. For example, suppose an origin server is bound to two sites, **www.origin01.com** and **www.origin02.com**, and the domain name connected to CDN is **www.example01.com**. If you need CDN to pull content from **www.origin02.com**, you would need to set the host to **www.origin02.com**.

5. Click **OK**. To add multiple origin servers, repeat **4**. You can add up to 50 origin servers.

NOTE

- The configuration takes 5 to 10 minutes to take effect. When **Status** of the domain name becomes **Enabled**, the domain name has been added.
- If the CNAME status of a domain name is  , no CNAME has been configured for this domain name.

6. Check whether the host needs to be modified. If it does, configure the host by referring to **Host Header**.

   After a domain name is added, the default host will be the domain name. Change the host in a timely fashion if either of the following conditions is met:

   – If you set **Origin Server Address** to **Origin server domain name** and enter the domain name of an object storage bucket, set the host to the domain name of the object storage bucket.

   – If you want CDN to pull content from a custom domain name, specify the host. For example, suppose an origin server is bound to two sites, **www.origin01.com** and **www.origin02.com**, and the domain name connected to CDN is **www.example01.com**. If you need CDN to pull

content from **www.origin02.com**, you would need to set the host to **www.origin02.com**.

5 Verifying the Domain Name Ownership

Scenario

When connecting a domain name to CDN for the first time, verify the ownership of the domain name through file upload or DNS record verification.

Precautions

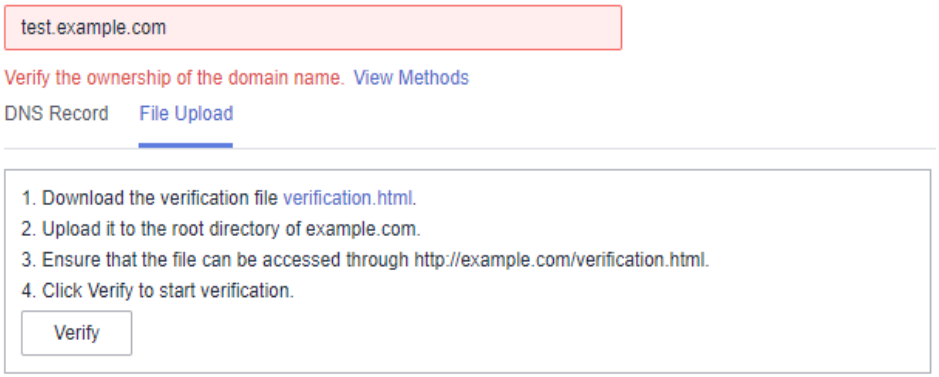
- After you verify the ownership of a domain name, ownership verification is not required for its subdomains or this domain name if you add it to CDN again.
  - Example: If you have verified the domain name ownership when adding the domain name b.a.com to CDN, you do not need to verify the ownership of subdomains of a.com, such as **.a.com and ***.a.com, when you add them as the origin servers.
- If you have verified the ownership of a domain name using account A, you must verify the ownership of this domain name again when adding it to CDN using account B.

File Upload

Domain name test.example.com is used as an example to describe how to verify the ownership of a domain name through file upload.

1. When adding a domain name to CDN, verify the ownership of the domain name in scenarios similar to the following.

   Figure 5-1 Verifying the domain name ownership

2. Select **File Upload**. Do not close the verification page before the verification is complete.
3. Click **verification.html** to download the file.
4. Upload the file to the root directory of your domain server.
5. Click **Verify** to verify the ownership of the domain name.

   NOTE

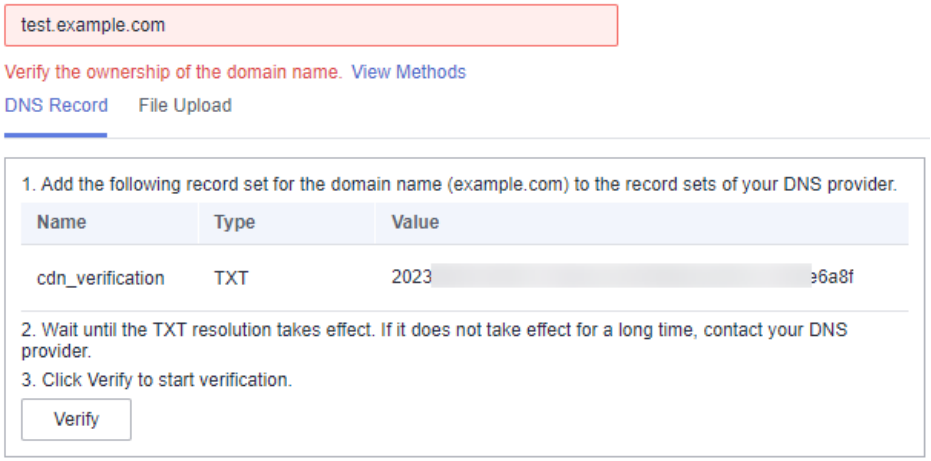
   Huawei Cloud CDN will access your origin server http://example.com/verification.html to obtain the verification file. If the system verifies that the obtained file is correct, the verification is successful. Ensure that the verification file is accessible.

DNS Record

Domain name test.example.com is used as an example to describe how to verify the ownership of a domain name through a DNS record.

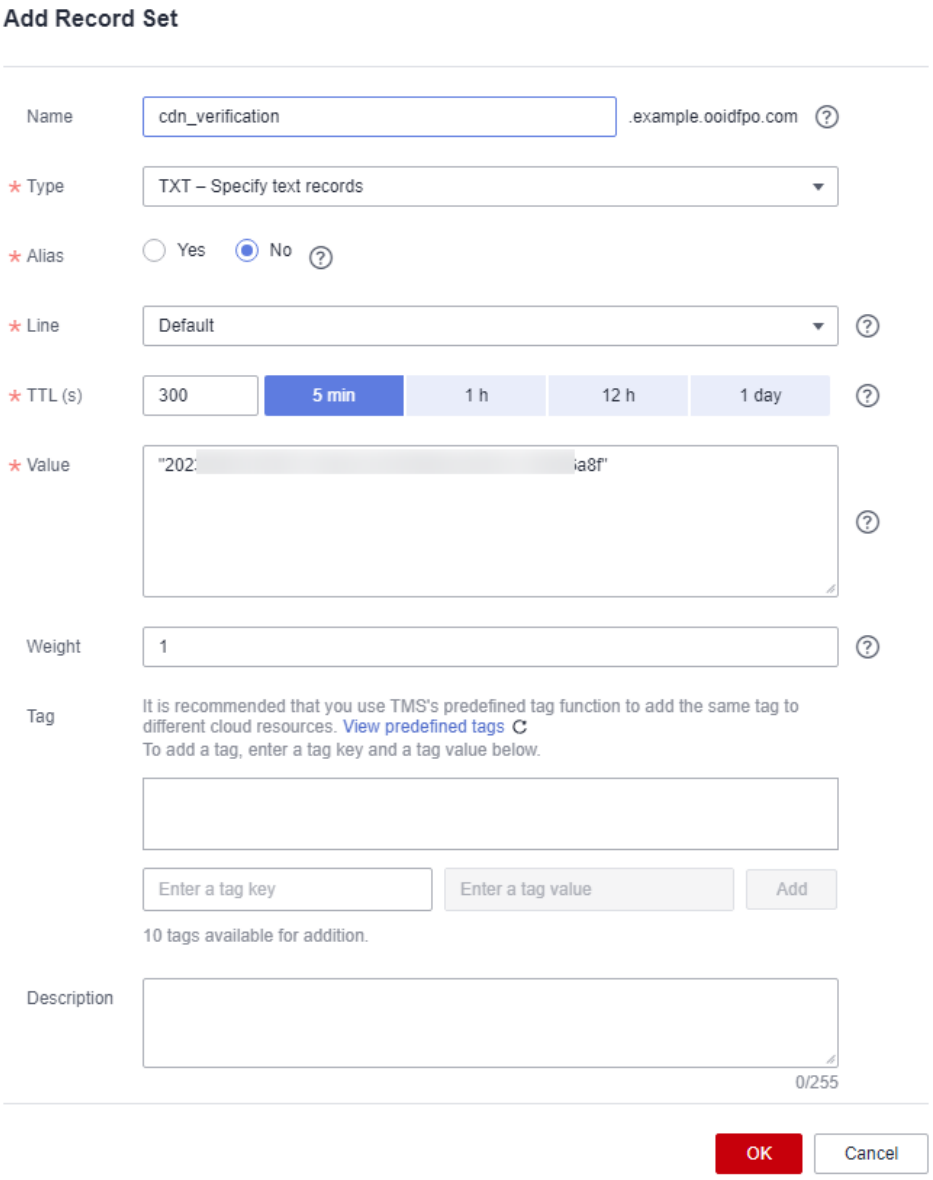
1. When adding a domain name to CDN, verify the ownership of the domain name in scenarios similar to the following. Do not close the verification page before the verification is complete.

   Figure 5-2 Verifying the domain name ownership

2. Add a TXT record to the record sets of your DNS provider.
   a. In the service list, choose **Networking** > **Domain Name Service**.
   b. In the navigation pane, choose **Public Zones**.
   c. Click **example.com**. In the upper right corner of the domain name details page, click **Add Record Set**.
      - **Name**: **cdn_verification**
      - **Type**: **TXT**
      - **Value**: Enter 32 characters, consisting of a date and a random UUID.

Figure 5-3 Adding a record set



a. Click **OK**.

3. After the TXT resolution takes effect, return to the **Add Domain Name** page of the CDN console and click **Verify**.

NOTE

- A new TXT resolution takes effect in real time. If it is modified, the modification takes effect 5 minutes later. (The effective time depends on the DNS resolution TTL. The default TTL is 5 minutes.)
- The configuration of other service providers, such as www.net.cn, DNSPod, Xinnet, or GoDaddy, is similar. You can verify the ownership of your domain name by referring to the preceding procedure.

6 (Optional) Testing the Domain Name

Test your domain name before adding a CNAME record to the domain's DNS records to ensure that your domain configurations are correct.

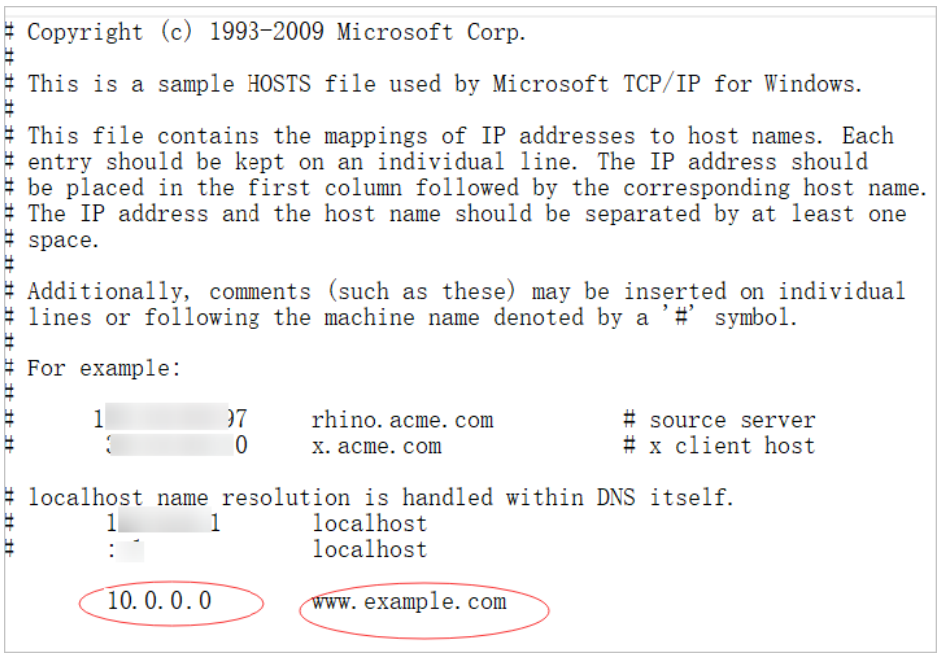
1. Ping the CNAME record for the domain name you added to obtain the IP address.

   For this example, we assume that the added domain name is www.example.com, the generated CNAME record is www.example.com.c.cdnhwc1.com, and the IP address obtained by pinging www.example.com.c.cdnhwc1.com is 10.0.0.0.

2. Bind the **hosts** file on the local PC.

   If you use are on a Windows system, add the mapping between the domain name www.example.com and the IP address 10.0.0.0 to the **hosts** file in the **C:\Windows\System32\drivers\etc** directory. See **Figure 6-1**.

   Figure 6-1 Testing the domain name

3. Access your domain name to test services. If the test results meet your expectation, the configurations are correct.

4. Add a CNAME record to your domain's DNS records. For details, see **Configuring a CNAME Record**.

7 (Optional) Recommended Configurations

After adding an acceleration domain name, configure cache rules, smart compression, and secure acceleration to improve the cache hit ratio, optimize the acceleration effect, and enhance security.

Improving Cache Hit Ratio and Optimizing the Acceleration Effect

Scenario	Configuration Item	Description
The cache hit ratio is low and the acceleration effect is not obvious.	Cache Rules	Proper cache time to live (TTL) and priority settings for different resources can improve the cache hit ratio, reduce the origin pull ratio, and relieve the pressure on the origin server. **Notes:** 1. When configuring cache rule priority, enter an integer ranging from 1 to 100. A greater number indicates a higher priority. 2. If you modify or add a cache rule, refresh the cache of the corresponding resource. 3. Set the cache TTL of dynamic resources to **0**, so dynamic resources are not cached. Otherwise, access exceptions may occur. 4. Check the cache settings on the origin server. If **no-cache**, **private**, or **no-store** is configured for a resource on the origin server and **Origin Cache Control** is enabled on the CDN console, CDN cannot cache the resource. CDN needs to pull the resource from the origin server each time it is requested. This does not achieve acceleration.

Scenario	Configuration Item	Description
	Range Requests	Configure range requests to accelerate distribution of large files during origin pull and reduce bandwidth consumption. • Range requests are enabled by default for download acceleration. • Check whether the origin server supports the **Range** header.
	Smart Compression	Compress static content on your websites by reducing file size. This speeds up file transfer and saves you a lot of bandwidth. • Smart compression includes gzip compression and Brotli compression. The performance of Brotli compression is 15% to 25% higher than that of gzip compression. • With smart compression, CDN automatically compresses .js, .html, .css, .xml, .json, .shtml and .htm files whose size ranges from 256 bytes to 2 MB.
	URL Parameter Filtering	Enable URL parameter filtering to improve the cache hit ratio and speed up content distribution. • If resources do not change with URL parameters, ignore URL parameters when configuring URL parameter filtering. • If resources change with URL parameters, do not ignore URL parameters when configuring URL parameter filtering.

Improving Website Security

Scenario	Configuration Item	Description
Improving security performance	HTTPS	Configure an SSL certificate to improve the domain name security.
	Access Control	Identify and filter visitors to restrict their access and improve CDN resource security.
	Accelerating Resources Protected by WAF	Huawei Cloud CDN works with WAF to defend against web attacks during content delivery acceleration, providing a more secure acceleration experience.

8 Configuring a CNAME Record

8.1 Overview

Background

If you have added a domain name, the system automatically assigns a CNAME record to it. The CNAME record cannot be accessed directly. You must add the CNAME record to your domain's DNS records. Then requests for your domain name will be redirected to CDN PoPs for acceleration.

What Is DNS Resolution?

When you use DNS for the first time, you may have some questions, such as "What is DNS resolution?", "Why is DNS resolution required?", "How is DNS resolution done?", and "What is an A record?". If you have similar questions, visit **Domain Name Service Help Center** to find the answers.

How Do I Add a CNAME Record?

If your DNS provider is Huawei Cloud, see **Adding a CNAME Record on Huawei Cloud DNS**.

DNS Conflicts

When you add a CNAME record, you may be informed of a DNS conflict, for example, an existing A record may conflict with the CNAME record, or an existing MX record may conflict with the CNAME record. For details, see **Why Is a Message Indicating Conflict with an Existing Record Set Displayed When I Add a Record Set?**

Table 8-1 Restrictions between record types

-	NS	CNAME	A	AAAA	MX	TXT	PTR	SRV	CAA
NS	No limit[a]	Conflict	No limit	No limit	No limit	No limit	No limit	No limit	No limit
CNAME	Conflict[b]	No limit	Conflict	Conflict	Conflict	Conflict	Conflict	Conflict	Conflict
A	No limit	Conflict	No limit	No limit	No limit	No limit	No limit	No limit	No limit
AAA	No limit	Conflict	No limit	No limit	No limit	No limit	No limit	No limit	No limit
MX	No limit	Conflict	No limit	No limit	No limit	No limit	No limit	No limit	No limit
TXT	No limit	Conflict	No limit	No limit	No limit	No limit	No limit	No limit	No limit
PTR	No limit	Conflict	No limit	No limit	No limit	No limit	No limit	No limit	No limit
SRV	No limit	Conflict	No limit	No limit	No limit	No limit	No limit	No limit	No limit
CAA	No limit	Conflict	No limit	No limit	No limit	No limit	No limit	No limit	No limit

a: NS record sets can be added for primary domains (for example, example.com). There are no restrictions on subdomains (for example, www.example.com).

b: For primary domains (for example, example.com), you can add CNAME record sets and NS record sets at the same time. However, CNAME record sets conflict with NS record sets for subdomains (for example, www.example.com), and therefore they cannot be added at the same time.

- **Conflict**: The two types of record sets cannot coexist in the same resolution line.
- **No limit**: The two types of record sets can coexist without restrictions.

Two common record set conflicts are:

1. A CNAME record conflicts with an A record.
   - How do I resolve this problem?

     Delete the A record and then configure the CNAME record.
   - Do I need to keep the A record for my website so that it remains accessible?

     As long as the CNAME record is configured, all client requests will be sent to CDN. In this case, you do not need to configure an A record.

For details about how the CNAME record works, see **How CDN Works**.

2. A CNAME record conflicts with an MX record.

   For details, see **Why Is a Message Indicating Conflict with an Existing Record Set Displayed When I Add a Record Set?**

8.2 Adding a CNAME Record on Huawei Cloud DNS

If your domain name is resolved using the DNS service Huawei Cloud provides, then follow the steps in this section to add a CNAME record. **download.game-apk1.com** is used as an example.

Procedure

- **Obtain the CNAME record of the domain name.**

1. Log in to the **Huawei Cloud console**. Choose **Service List** > **Content Delivery & Edge Computing** > **Content Delivery Network**.

   The CDN console is displayed.

2. In the navigation pane, choose **Domains**.

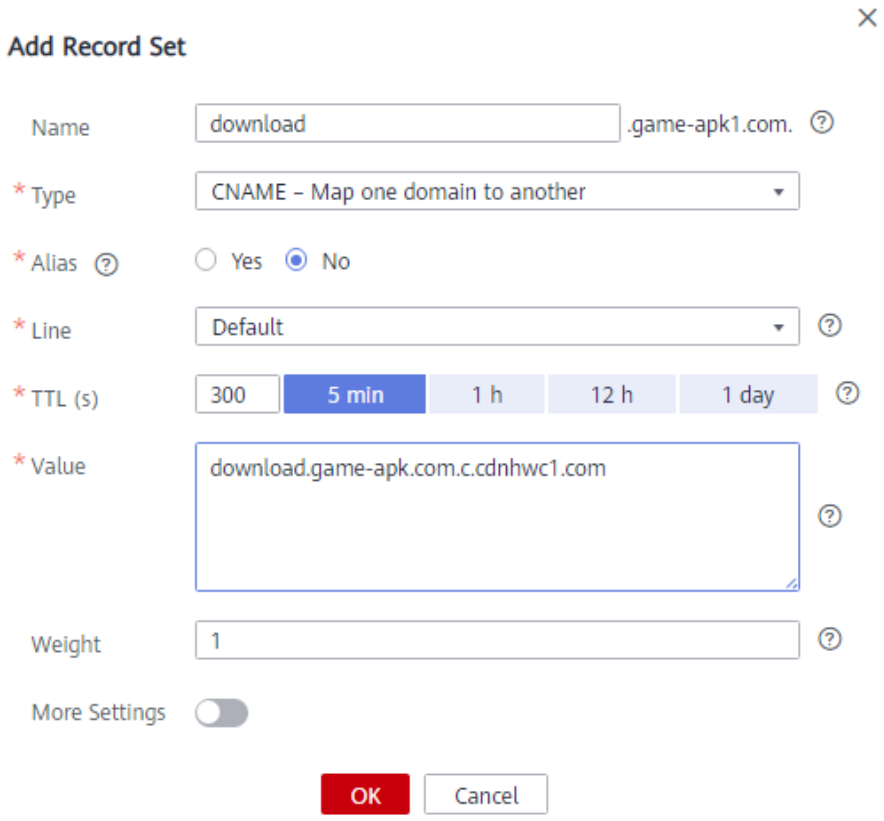
   On the **Domains** page, copy the CNAME record **download.game-apk1.com.c.cdnhwc1.com**.

   Figure 8-1 Obtaining the CNAME record

- **Add the CNAME record.**

1. Log in to the **management console** and choose **Service List** > **Networking** > **Domain Name Service**. The DNS console is displayed.
2. In the navigation pane, choose **Public Zones**. The public zone list is displayed.
3. Click the domain name you want to add a record set to. In this example, the domain name is **game-apk1.com**.
4. Click **Add Record Set** in the upper right corner.

Figure 8-2 Adding a record set



5. Configure the parameters as instructed. **Table 8-2** describes the parameters.

Table 8-2 Parameter description

Parameter	Parameter description	Example Value
Name	Domain name prefix	• **Name** for www.huaweicloud.com is **www**. • **Name** for testcdn.huaweicloud.com is **testcdn**.
Type	Type of the record set **NOTE** A CNAME record cannot coexist with an A record. Otherwise, DNS resolution will fail.	CNAME – Map one domain to another
Alias	Whether the record set will be associated with a cloud resource	No

Parameter	Parameter description	Example Value
Line	Used when the DNS server is resolving a domain name. It returns the IP address of the server according to the visitor source. For details, see **Resolution Line**.	Default
TTL (s)	Cache duration of the record set on a local DNS server. If your service address changes frequently, set TTL to a smaller value.	Retain the default value.
Value	Domain name to be pointed to, that is, the CNAME record allocated by CDN	download.game-apk1.com.c.cdnhwc1.com
Weight	If a resolution line in a zone contains multiple record sets of the same type, you can set different weights to each record set. For details, see **Configuring Weighted Resolution**.	-

6. Click **OK**.

   NOTE

   - After the CNAME resolution takes effect, the status changes to . However, CNAME resolution may fail the verification and the status changes to , indicating that no CNAME record is configured for the domain name. If you have correctly configured the CNAME record, ignore the error message.
   - A CNAME record takes effect immediately after being added. If you modify the CNAME record, then the change takes effect within 72 hours.
   - If you encounter a resolution conflict, see **DNS Conflicts**.

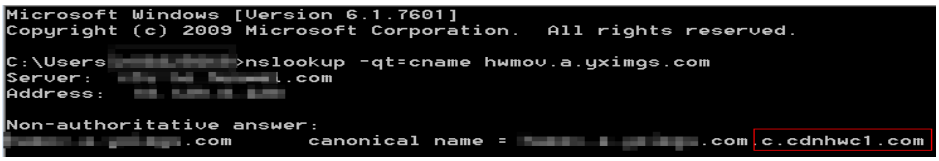
9 Checking Whether the CNAME Record Has Taken Effect

The length of time before the CNAME record takes effect depends on the DNS provider. To check whether a CNAME record has taken effect:

Open the command line interface that comes with Windows and run the following command:

```
nslookup -qt=cname Acceleration domain name
```

If the CNAME record is displayed, the CNAME record has taken effect.



Now CDN acceleration has been enabled. For details about more settings, see **Domain Name Settings**.

10 FAQ

Can a Rejected Domain Name Be Modified and Re-added to CDN?

No. The rejection of a domain name usually means that this domain name has not been licensed by China's MIIT. CDN does not support unlicensed domain names. For domain names that are being licensed by China's MIIT, the system will scan them regularly. Once these domain names are licensed, their status will be switched to **Enabled** automatically.

What Can I Do If the ICP License of an Acceleration Domain Name Expires?

You must apply for a new license from the MIIT.

- If a new license is obtained before the original one expires, your CDN service is not affected.
- If a license has expired and no new license has been obtained yet, CDN bans the domain name. After obtaining a new license, you can apply to unban the domain name on the CDN console. For details, see **Reviewing a Domain Name**.

If the ICP License of an Acceleration Domain Name Expires, Does CDN Still Provide Services?

No.

1. You should obtain a new ICP license as soon as possible.
2. Have your domain name reviewed. Then, CDN can be enabled for the domain name. For details about how to review a domain name, see **Reviewing a Domain Name**.

NOTE

If a license has expired and no new license has been obtained yet, CDN bans the domain name and the acceleration service for it.

Can a Level-2 Domain Be Accelerated If Only Its Level-1 Domain Name Is Licensed by the MIIT, but Its Level-2 Domain Name Is Resolved Outside the Chinese Mainland?

Yes. If the level-1 domain name has been licensed by the MIIT, the level-2 domain name does not need to be licensed. In addition, a domain name that requires acceleration services only outside the Chinese mainland does not need to be licensed by the MIIT.

Can I Use CDN If My Domain Name Is Not Licensed?

If the service area of your domain name is **Chinese mainland**, obtain an ICP license from the MIIT before using CDN. If the service area of your domain name is **Global (Chinese mainland not included)**, the ICP license is not required before using CDN. For details, see **Domain Name Requirements**.

Why Do I Get Request Timed Out When Trying to Ping an Acceleration Domain Name?

For security purposes, ping operations are not allowed. You can run the **nslookup** command to check whether CDN has taken effect. For details, see **Verify Whether the CNAME Record Has Taken Effect**.

How Do I Deploy CDN and WAF Together?

Resolve your acceleration domain name to CDN, and then change the origin address of your acceleration domain name to WAF's CNAME value. CDN forwards the traffic to WAF. Then WAF filters out the illegitimate traffic and routes only the legitimate traffic back to your origin server. In this way, WAF protects CDN accelerated traffic.

To prevent other users from adding your domain name to WAF in advance (this will cause interference on your domain protection), you are advised to add a subdomain name and TXT record of WAF at your DNS provider.

For details, see **Domain Setup with Both CDN and WAF Deployed**.

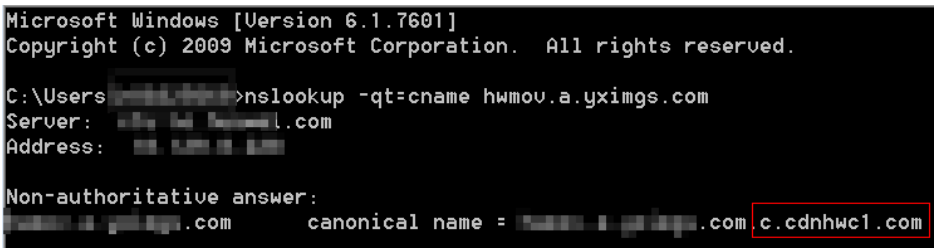
How Do I Check Whether CDN Has Taken Effect?

The length of time before the CNAME record takes effect depends on the DNS provider. To check whether a CNAME record has taken effect:

Open the command line interface that comes with Windows and run the following command:

```
nslookup -qt=cname Acceleration domain name
```

If the CNAME record is displayed, the CNAME record has taken effect. A typical command output is shown in the following figure.



What Are the Differences Between an Acceleration Domain Name and an Origin Domain?

- Acceleration domain names are provided by you for CDN acceleration. A domain name is an identification string that defines a realm of administrative autonomy, authority, or control within the Internet, such as a website, an email address, or an FTP server.
- An origin domain is the domain name of your origin server.

Can Multiple Acceleration Domain Names Use the Same Origin Server IP Address?

Yes. Different acceleration domain names can use the same origin IP address.

If a Domain Name Is Not Registered on the Chinese Mainland but Its CDN Service Area Is the Chinese Mainland, Is an ICP License Required for It?

Whether a domain name needs to be licensed does not depend on the region of the domain name provider or the area where the website server is. All that matters is the service area of your domain name. If the service area includes the Chinese mainland, the domain name must be licensed by the MIIT before being added as an acceleration domain name.

Can an Origin Domain Name Be the Same as an Acceleration Domain Name?

No.

When a user requests content on an acceleration domain name, if the desired content is not cached on CDN PoPs, CDN PoPs need to retrieve content from the origin server. If the origin domain is the same as the acceleration domain name, the user's request will be repeatedly directed to CDN PoPs, and CDN PoPs will not be able to retrieve content from the origin server.

Can Wildcards Be Used as Part of an Acceleration Domain Name?

Yes. A wildcard, *, allows multiple secondary domain names to be included by the same value. All these secondary domain names point to the same IP address. If you add ***.test.com** to CDN as an acceleration domain name and have it resolved to the CNAME provided by CDN, all of the level-2 domain names under ***.test.com**, such as **a.test.com**, will enjoy CDN acceleration by default. However, level-3 domain names (such as **b.a.test.com**) would not.

The following are the rules for adding wildcards to domain names:

- If you add a wildcard to a domain name for a particular account, you cannot add any of the level-2 domain names under that domain name to other accounts.
- Nested structures are not allowed for domain names that include wildcards. For example, if you have added a domain name like ***.a.b.com**, you cannot add another like ***.c.a.b.com** or ***.b.com**.
- You will be billed for the acceleration service provided to all of the level-2 domain names under a wildcard domain name. If there are multiple level-2 domain names, billing will be based on the traffic generated by the domain name with the wildcard, not on each of the level-2 domain names.

A Change History

Released On	Description
2023-06-26	This issue is the twenty-fourth official release. ● Released the new page for adding a domain name.
2023-04-06	This issue is the twenty-third official release. ● When using a private bucket as the origin server, you must select the **Private bucket** option.
2023-03-24	This issue is the twenty-second official release. ● Removed section "Verifying the Origin Server."
2023-02-06	This issue is the twenty-first official release. ● Modified the rule for enabling CDN. By default, traffic-based billing is enabled for V0 and V1 customers.
2022-11-28	This issue is the twentieth official release. ● When you add a domain name, you can specify an OBS bucket in South Africa, Mexico, and Brazil as the origin server.
2022-10-26	This issue is the nineteenth official release. ● Changed origin server verification in section "Adding an Acceleration Domain Name" to an independent section.
2022-08-19	This issue is the eighteenth official release. ● Added the section "(Optional) Recommended Configurations."
2022-02-09	This issue is the seventeenth official release. ● Updated "Enabling CDN."

Released On	Description
2021-05-14	This issue is the sixteenth official release. This release incorporates the following change: ● Added origin server verification to section "Adding a Domain Name."
2021-04-06	This issue is the fifteenth official release. This release incorporates the following change: ● Whole site acceleration can be enabled on the CDN console.
2020-11-10	This issue is the fourteenth official release. This release incorporates the following change: ● OBS buckets in Hong Kong (China), Singapore, and Bangkok can be connected to CDN as origin servers.
2020-09-25	This issue is the thirteenth official release. This release incorporates the following changes: ● Optimized the document structure. ● Added section "FAQ." ● Added section "Overview."
2020-06-11	This issue is the twelfth official release. This release incorporates the following changes: ● Removed the origin verification methods from "Step 3: Add a CDN Acceleration Domain Name." ● Optimized some descriptions.
2020-04-10	This issue is the eleventh official release. This release incorporates the following changes: ● Added "Verifying Domain Ownership" in "Step 3: Add a CDN Acceleration Domain Name." ● Optimized some descriptions.
2020-01-02	This issue is the tenth official release. This release incorporates the following changes: ● Optimized the document structure. ● Added the origin verification methods in "Step 3: Add a CDN Acceleration Domain Name." ● Optimized some descriptions.
2019-10-28	This issue is the ninth official release. This release incorporates the following changes: ● Added the step of testing CDN in section "Accessing CDN." ● Optimized some descriptions.

Released On	Description
2019-09-24	This issue is the eighth official release. This release incorporates the following changes: ● Added section "Overview." ● Optimized some descriptions.
2019-06-26	This issue is the seventh official release. This release incorporates the following changes: ● Divided section "Quickly Accessing the CDN Service" into "Accessing CDN (Pay-per-Use)" and Accessing CDN (Yearly/Monthly)." ● Optimized some descriptions.
2019-05-08	This issue is the sixth official release. The modification is as follows: ● Combined "Enabling CDN", "Adding a CDN Acceleration Domain Name", and "Configuring CNAME" to "Quickly Accessing the CDN Service." ● Changed the method of verifying whether a CNAME takes effect. ● Moved "Configuring CNAME Records (Non-Huawei Cloud DNS)" to "Related Resources."
2019-03-14	This issue is the fifth official release. The modification is as follows: ● Optimized the document structure.
2019-02-28	This issue is the fourth official release. The modification is as follows: ● Optimized the document content.
2018-12-28	This issue is the third official release. The modification is as follows: ● Optimized description in section "Adding a Domain Name for Acceleration."
2018-08-30	This issue is the second official release. The modification is as follows: ● Updated section 3 "Adding a CDN Acceleration Domain Name" and added description of configuring OBS buckets as origin servers. ● Updated section 3 "Adding a CDN Acceleration Domain Name" and added description of configuring enterprise projects.
2018-06-15	This issue is the first official release.

