CDN

FAQs

 Issue
 30

 Date
 2024-03-27





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CDN FAQs

Functions and Usage

1.1 Functions

1.1.1 What Is Whole Site Acceleration?

Whole site acceleration (WSA) 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.

WSA accelerates both dynamic and static content. Static content can be served from nearby points of presence (PoPs), whereas dynamic content is pulled from the origin server through the fastest possible route.

Typically, WSA loads dynamic pages more quickly by bypassing congested routes.

- If you enable WSA, in addition to the basic cost, requests will be billed (\$0.023 USD for 10,000 requests). For details, see **Pricing Details**.
- You can enable WSA for a domain name on the **Domains** page of the CDN console.

1.1.2 What Service Types Does CDN Support?

• Website acceleration

CDN is perfect for web portals, e-commerce platforms, information apps, and UGC-focused apps. It can accelerate the delivery of images and small HTML, CSS, and JS files.

• File download acceleration

CDN is suitable for websites, game clients, and app stores that provide file download services, and download tools. It is used in scenarios such as downloading game installation packages and application packages, and updating the ROM on mobile phones.

• On-demand service acceleration

For customers providing on-demand audiovisual services, CDN is a must. Ondemand services include online education, video sharing, music or video on demand, and other audiovisual content. 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. Example:

 If both on-demand service acceleration and file download acceleration are required, only one service type can be selected for an acceleration domain name. You need to create two domain names, one for ondemand service acceleration and the other for file download acceleration.

1.1.3 Does CDN Support DNS, HttpDNS, and IP302 Scheduling?

Yes. CDN supports domain name server (DNS), HttpDNS, and IP302 scheduling. You can configure DNS scheduling by yourself. To configure HttpDNS or IP302 scheduling, submit a service ticket. The following table lists the differences between the three scheduling types.

Schedulin g Type	Description
DNS	A DNS system is a natural distributed structure. Both the clients and local DNS (LDNS) can implement cache. The architecture itself can achieve high scalability and performance. When DNS scheduling is used, CDN determines the client location based on the LDNS address and schedules the request to the nearest server.
HttpDNS	The HttpDNS technology enables clients to bypass carriers' LDNS and directly use HTTP to access the scheduling system and request the optimal access PoP. This prevents service security problems caused by DNS hijacking.
IP302	Client IP addresses and content addresses can be directly obtained, enabling precise scheduling.

1.1.4 Which Protocols Does CDN Support?

Domain names whose service area is outside the Chinese mainland or global:

- CDN supports HTTP and HTTPS. It does not support FTP, TCP, or UDP.
- WebSocket for whole site acceleration domain names (without special configurations).

Domain names whose service area is the Chinese mainland:

- For non-whole site acceleration domain names, CDN supports HTTP and HTTPS. It does not support FTP, TCP, UDP, or WebSocket.
- For whole site acceleration domain names, CDN supports HTTP, HTTPS, and WebSocket. It does not support FTP, TCP, or UDP.
- CDN supports acceleration using layer 4 protocols, such as proprietary TCP and UDP. This function is in alpha test. For details about the open beta test (OBT) time and enabling method, stay tuned for the service announcement.

Acceleration for requests using the WebSocket protocol is in OBT and is available for free trial.

1.1.5 Does On-Demand Service Acceleration Support HLS and RTMP?

On-demand service acceleration supports the HLS protocol but does not support the RTMP or FLV protocol.

1.1.6 Can CDN Identify Whether a User Is on a Desktop or Mobile Device?

No.

If a CDN point of presence (PoP) caches the content for mobile devices, when a user accesses that content, the CDN PoP directly serves the content. If a CDN PoP caches the content for desktop devices, when a user accesses that content, the CDN PoP also directly serves the content. Therefore, the content for mobile devices and that for desktop devices need to be distinguished on the origin server.

1.1.7 What SDKs Can I Use?

Currently, CDN supports Python, Java, Go, .NET, Node.js, and PHP SDKs. For details about the development packages and reference documents, see **SDK Overview**.

1.1.8 Does CDN Support Acceleration for a Single Web Page?

Yes.

If you want to accelerate some resources on a website, you can set an independent domain name for these resources and then configure CDN acceleration for the domain name.

1.1.9 Does CDN Support Binary File Acceleration?

Yes. You can select download acceleration for such requirements.

1.1.10 Does CDN Support Level-2 Domain Name Acceleration?

Yes.

If a level-2 domain name needs acceleration in the Chinese mainland, its level-1 domain name must have been licensed by MIIT. If the level-2 domain name needs acceleration only outside the Chinese mainland, the licensing is not required.

1.1.11 Does CDN Accelerate POST Requests?

POST requests are dynamic interaction requests. If you have only configured website acceleration, download acceleration, or on-demand service acceleration, CDN does not accelerate these requests.

However, you can configure whole site acceleration if your website contains a lot of dynamic content. Whole site acceleration accelerates both dynamic and static content. Static content can be served from nearby points of presence (PoPs), whereas dynamic content is pulled from the origin server through the fastest possible route.

1.1.12 Does CDN Have a Speed Limit?

There is no default speed limit for acceleration domain names. You can configure one by referring to **Request Rate Limiting**.

1.1.13 Does CDN Accelerate Local Access to Shopping Websites?

No.

If a shopping site uses CDN to speed up its website, its customers will be able to access the website more quickly.

1.1.14 What Origin Types Does CDN Support?

CDN supports the following origin types: origin IP addresses, object storage bucket domain names, and origin domain names. An origin server can be deployed on Huawei Cloud, other clouds, or Internet Data Centers (IDCs). There is no requirement on the location of the origin server.

If you use an object storage bucket of a non-Huawei Cloud service provider as the origin server, configure the origin server on the CDN console by referring to How Do I Configure an Origin Server When It Is a Non-Huawei Cloud Object Storage Bucket?

1.1.15 Can I Set a Traffic or Bandwidth Cap?

CDN supports usage (traffic/bandwidth) capping. You can configure a cap on the CDN console.

1.1.16 How Many PoPs Does Huawei Cloud CDN Have?

Huawei Cloud CDN has over 2,000 points of presence (PoPs) in the Chinese mainland and over 800 PoPs outside the Chinese mainland.

1.1.17 Does CDN Support Cross-Origin Resource Sharing?

Yes, but you need to configure it on the CDN console.

If you only configure cross-origin resource sharing on the origin server, an error will be reported to a user when the user requests cross-origin content. In this case, you need to add the **Access-Control-Allow-Origin** parameter to the HTTP header configuration on the CDN console. For details, see **HTTP Header Settings (Cross-origin Requests)**.

1.1.18 Does CDN Accelerate Domain Names That Contain Chinese Characters?

No.

1.1.19 Does Huawei Cloud CDN Support HTTP/3?

Yes. You can enable QUIC on the CDN console so that clients can use HTTP/3 to access CDN PoPs.

1.1.20 Does Huawei Cloud CDN Support Content Encryption Before Distribution?

No. CDN only provides content distribution.

1.1.21 Does Huawei Cloud CDN Support Intranet Acceleration?

No.

1.1.22 Can CDN Provide All PoP IP Addresses and Origin IP Addresses?

No.

The public IP addresses of CDN points of presence (PoPs) change from time to time. Therefore, PoP IP addresses and origin IP addresses cannot be provided.

1.1.23 Can I Migrate Domain Configurations in One Account to Another Account?

No.

You can remove the domain name from the existing account and add it to the new account.

Before removing a domain name, switch services back to the origin server to prevent service interruption.

1.1.24 Is the Principle of Accelerating Static and Dynamic Content the Same?

No.

- Static content is cached on CDN points of presence (PoPs) so that users can obtain the content from the nearest CDN PoP.
- Dynamic (pseudo-static) content is directly pulled from the origin server. Technologies such as intelligent routing, multi-line origin pull, and protocol optimization are used to accelerate origin pull.

If your website contains a lot of dynamic and pseudo-static content, you can use whole site acceleration, so that CDN loads dynamic pages more quickly by bypassing congested routes.

1.1.25 How Do I Stop the CDN Service?

Scenario	Operation	Description
Suspending the CDN acceleration service	Disabling CDN for a Domain Name	To temporarily stop the acceleration service for a domain name, you can disable CDN for the domain name. Domain name settings are still retained. If the local DNS of a user has cached the resolution record or the user binds the domain name with a CDN point of presence (PoP) in the hosts file to forcibly resolve requests, CDN will refuse to provide services for the user after receiving the requests. However, the corresponding traffic and request data will be generated.
Permanently stopping the CDN acceleration service	Deleting a Domain Name	To permanently stop the acceleration service for a domain name, you can delete the acceleration domain name. All settings of the domain name will be deleted from CDN PoPs and the domain name will no longer be charged by CDN.

You can stop the CDN service in the following two scenarios.

Before disabling CDN for a domain name or deleting a domain name, resolve the domain name to the origin server to prevent service loss.

1.1.26 What Is the Maximum Size of a File to Be Uploaded to CDN?

You can upload files with a maximum size of 300 MB to CDN and you will be billed for traffic used for file upload.

1.1.27 Does CDN Support Frequency Control?

No.

1.1.28 Does CDN Support Real-Time Monitoring?

Yes. CDN can **report data to Cloud Eye**, so that you can view basic data (such as traffic, bandwidth, and status codes) of domain names under your account in real time and set alarms.

1.1.29 Does CDN Support Access Through Fixed IP Addresses?

No. Points of presence (PoPs) of CDN have a large number of IP addresses. The IP addresses may change irregularly, and PoPs may be maintained or go offline. Fixed IP addresses may be unreachable at any time. Access CDN through DNS resolution by following the standard process in **Getting Started**.

1.2 Usage

1.2.1 How Do I Enable CDN?

To enable CDN:

- 1. Register a HUAWEI ID and complete real-name authentication. Real-name authentication is not required if your service area is **Outside Chinese mainland**.
- 2. Buy a CDN traffic package to deduct traffic generated.

uy Traffic Package 💿 🗔	Back to the Provision CDN page
* Package Type	Chinese mainland International
International Traffic Package	500 GB 1 T8 5 T8 10 T8 50 T8 200 T8 1 PB Note: 1. International traffic packages can only be used for traffic generated outside the Chinese mainland. 2. There is a 4 hour delay before traffic can be billed. Your traffic package cannot be applied to traffic that has not been billed yet.
Validity Period	1 year
	If the resources in a package are used up or if the package expires, continued usage will be billed on a pay-per-use basis.
Quantity	1 + You can purchase up to five packages at a time. Resource packages take effect immediately. Such subscriptions cannot be canceled.
Price \$57.00 USD	Net

3. After buying a traffic package, **enable CDN**. Then you can use CDN for acceleration.

1.2.2 How Do I Control and Assign CDN Permissions by Project?

You can use enterprise projects to assign CDN permissions so that users in each project can use an individual domain name.

Huawei Cloud Enterprise Management service provides unified cloud resource management based on enterprise projects, and resource and personnel management within enterprise projects. Enterprise projects can be managed by one or more user groups. You can create CDN enterprise projects on the Enterprise Management console to manage your domain resources in a centralized manner. For details, see **Creating an Enterprise Project and Authorizing User Groups**.

1.2.3 How Do I Grant CDN Permissions to IAM Users?

You can use IAM to implement fine-grained permissions management. IAM provides identity authentication, permissions management, and access control, helping you securely access your Huawei Cloud resources. For details about all

CDN permissions and how to grant permissions to IAM users, see **Permissions Management**.

1.2.4 How Do I Obtain the IP Address of a User?

You can obtain the IP address of a user from the value of the **X-Forwarded-For** header. For details, see **Obtaining Real IP Addresses of Users**.

1.2.5 Is the CDN Service Area Related to the Origin Server Location and ICP Filing?

CDN service area and origin location

• The service area of a domain name has nothing to do with the origin location.

CDN service area and ICP filing

- 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.
- If your service area is outside the Chinese mainland, ICP filing is not required.

1.2.6 Will User Access from Other Regions Be Accelerated If I Select Chinese Mainland or Outside the Chinese Mainland as My Service Area?

- If you select **Chinese mainland**, users outside the Chinese mainland can also access CDN points of presence (PoPs) in the Chinese mainland. However, due to cross-border network conditions, the acceleration will not be as noticeable as it is for access from within the Chinese mainland. In the worst-case scenario, your domain name may become inaccessible.
- If you select **Outside Chinese mainland**, users in the Chinese mainland can also access CDN PoPs outside the Chinese mainland. However, due to cross-border network conditions, the acceleration will not be as noticeable as it is for access from within the Chinese mainland. In the worst-case scenario, your domain name may become inaccessible.

1.2.7 Does CDN Support Acceleration by Region?

No. However, you can configure DNS settings at the domain name provider to redirect requests from a certain region to CDN points of presence (PoPs), so that acceleration can be implemented only for this region.

1.2.8 What Is the Conversion Rule for Traffic and Bandwidth?

- 1 GB = 1,024 MB
- 1 Mbit/s = 1,000 kbit/s

1.2.9 Does CDN Accelerate the Origin Server of a Website, or Accelerate the Domain Name?

CDN accelerates domain names. When CDN is enabled, access requests to all files under an acceleration domain name will be directed to CDN points of presence (PoPs).

1.2.10 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. For example, if you add *.test.com to CDN as an acceleration domain name and have it resolved to the CNAME record provided by CDN, CDN acceleration will apply to all level-2 domain names under *.test.com, such as a.test.com, by default. However, CDN acceleration will not apply to level-3 domain names such as b.a.test.com.

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.
- 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.

You can log in to the CDN console, choose **Domains** in the navigation pane, and click **Add Domain Names** to configure a wildcard domain name.

1.2.11 What Are the Differences in CDN Acceleration Among the Three Service Areas?

The only difference is that the points of presence (PoPs) providing acceleration services locate in different areas.

• Acceleration in the Chinese mainland:

Only PoPs in the Chinese mainland provide acceleration services for your acceleration domain name. Users can access the nearest PoPs in the Chinese mainland. PoPs outside the Chinese mainland do not provide the acceleration service.

• Acceleration outside the Chinese mainland:

Only PoPs outside the Chinese mainland provide acceleration services for your acceleration domain name. Users can access the nearest PoPs outside the Chinese mainland. The PoPs in the Chinese mainland do not provide the acceleration service.

• Global acceleration: Both PoPs outside and in the Chinese mainland provide acceleration services for your domain name, so that users can get what they want from the PoP nearby.

D NOTE

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

1.2.12 Can I Use the CDN SDKs?

No. CDN SDKs are unavailable for Huawei Cloud (International) users.

1.2.13 How Do I Select the Service Area If the Server Is Outside the Chinese Mainland but My Web Visitors Are in the Chinese Mainland?

You are advised to select Chinese mainland as Service Area.

Because:

- If users in the Chinese mainland access your domain name, users are redirected to nearby CDN points of presence (PoPs). They will experience notable acceleration.
- If users outside the Chinese mainland access your domain name, they are also redirected to CDN PoPs in the Chinese mainland because your service area is Chinese mainland. The acceleration will not be as noticeable as it is for access from within the Chinese mainland. In the worst-case scenario, your domain name may become inaccessible.

1.2.14 Is CDN Necessary If My Services Are Deployed Within a City?

Yes. CDN has different lines. Its carrier partners have their own points of presence (PoPs). Using CDN to cache static resources on different PoPs can relieve the pressure on your origin server and improve user experience.

1.2.15 How Does CDN Determine the Region to Which a User Belongs?

Huawei Cloud CDN uses Local Domain Name Server (LDNS) to determine the region to which a user belongs.

1.2.16 How Do I Direct Traffic from a Third-party Platform to CDN?

Add your domain name to CDN. Test your domain name before adding a CNAME record. For details, see **Testing the Domain Name**. After the test is successful, add the CNAME record provided by CDN to your domain's DNS records. For details, see **Configuring a CNAME Record**.

1.2.17 Do I Need to Register My Domain Name with Huawei Cloud Before Using CDN?

If your domain name has an ICP license number, then you can directly use CDN.

1.2.18 Can an Acceleration Domain Name Be Configured with Multiple Origin Servers?

Yes.

You can configure two origin servers in primary/standby mode. One origin server is selected as the primary origin server, and the other as a standby one. For details, see **Origin Server Settings**.

1.2.19 Can File Upload Be Accelerated?

You can use whole site acceleration to accelerate file upload. Whole site acceleration uses the dynamic acceleration technology to intelligently select the optimal route to your origin server. Whole site acceleration also leverages the internal network transmission for faster file upload.

1.2.20 Can Users in the Chinese Mainland Access Origin Servers and Users Outside the Chinese Mainland Access CDN?

If your DNS server supports region-specific DNS resolution, you can configure the DNS settings as follows:

- 1. Add a domain name outside the Chinese mainland. The origin address is set to the IP address or domain name of your server.
- 2. Resolve domain names by region.
 - Requests from the Chinese mainland are redirected to the server IP address indicated by the A record.
 - Requests from outside the Chinese mainland are redirected to the address indicated by the CNAME record.

1.2.21 Can I Use CDN If the Origin Port Is Not 80?

Yes. The origin port is customizable. You can modify the origin port on the CDN console. For details, see **Modifying Origin Server Details**.

1.2.22 Can I Use Global Acceleration If My Origin Server Is in the Chinese Mainland?

Yes.

The service area of a domain name has nothing to do with the origin server location. If you want to use global acceleration, select **Global** for **Service Area** when adding a domain name.

1.2.23 How Do I Configure an Origin Server When It Is a Non-Huawei Cloud Object Storage Bucket?

- 1. Obtain the domain name of your bucket. Add a domain name on the CDN console, set the origin server type to **Domain name**, and enter the obtained bucket domain name.
- 2. By default, the host for origin pull is your acceleration domain name. If you configure an object storage bucket as your origin server, change the host to

the domain name of that object storage bucket. Otherwise, origin pull will fail.

1.2.24 Does CDN Accelerate User Access from a Specified Line?

No.

Among all the requests for your domain name, CDN cannot accelerate access from a specific line, for example, China Telecom.

1.2.25 What If the ICP License of My Acceleration Domain Name Expires?

Impacts

- 1. If you obtain a new license before the original one expires, your CDN service will not be affected.
- 2. If a license has expired and you have not obtained a new license, CDN bans the domain name and the acceleration service for it.

Solutions

- 1. Apply to the Ministry of Industry and Information Technology (MIIT) for a new license.
- 2. Have your domain name reviewed.

After your domain name has reviewed, you can enable CDN for the domain name. You can apply to review the domain name on the CDN console. For details, see **Reviewing a Domain Name**.

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

- An acceleration domain name is provided for acceleration, that is, the domain name accessed by users.
- An origin domain corresponds to the server IP address. It is accessed by CDN during origin pull.

The acceleration domain name and origin domain cannot be the same. When a user accesses the acceleration domain name for a website resource but it is not cached, CDN will need to pull the resource 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 points of presence (PoPs), and CDN PoPs will not be able to pull content from the origin server.

1.2.27 Do Acceleration Domain Name and Origin Domain Both Need to Be Licensed by China's MIIT?

- An acceleration domain name whose service area is **Chinese mainland** or **Global** must be licensed by the MIIT.
- An acceleration domain name whose service area is **Outside Chinese mainland** does not need to be licensed by the MIIT.

 The origin domain does not need to be licensed, but should be accessible over the Internet. (It is recommended that the origin domain be licensed by the MIIT as well.)

1.2.28 Can CDN Provide Acceleration for a Domain Name That Houses Different Types of Services (Website, VOD, and File Download)?

Yes, but the acceleration will not be noticeable. It is recommended that different types of pages use different domain names for acceleration.

For example, place the VOD content in http://video.example.com and video content in http://file.example.com, and then apply CDN separately to the two different domains.

1.2.29 Why Is the Error Message Indicating Failed to Obtain the Domain ID Displayed When an IAM User Calls an API After the Enterprise Project Function Is Enabled?

The account administrator grants only the permissions of an enterprise project to the IAM user, so the IAM user cannot obtain the domain ID of the account, and the following error message is displayed when the IAM user calls an API.



In this case, log in to the console as the account administrator and obtain the domain ID of the account. Carry the parameter **domainId** when calling an API as the IAM user.



1.2.30 Can CDN Share an Acceleration Domain Name with Live?

No. Live and CDN share points of presence (PoPs). If your domain name has been added to Live, use another domain name for CDN acceleration.

2 Purchase and Billing

2.1 What Will I Billed For?

You will be billed for:

- Traffic generated by user access to CDN points of presence (PoPs). CDN does not charge any origin pull requests.
- Traffic for obtaining content from the origin server that is an object storage bucket.

Billing on the CDN side:

• You can choose to be billed by traffic, peak bandwidth, 95th percentile bandwidth, or average daily peak bandwidth. You can also purchase economical traffic packages. For details, see **Billing**.

Billing on the OBS side:

• OBS provides origin pull packages for CDN. You can buy a package to pay for traffic incurred for pulling content from an OBS bucket.

D NOTE

Ensure that the purchased origin pull package and your OBS bucket are in the same region. If they are in different regions, you need to purchase a new origin pull package in the region where the bucket locates.

Cache prefetch:

• Cache prefetch is simulation of origin pull. Traffic or bandwidth consumed during cache prefetch is not billed by CDN, but billed by other services based on your origin server configuration. For example, if your origin server is an OBS bucket, you will be billed by OBS for traffic generated during origin pull.

CDN services will be suspended if you have outstanding unpaid balance. Top up your account in a timely manner to ensure that your services are not interrupted.

2.2 Will I Be Billed If My Domain Name Is Under Attack?

Yes. The consumed traffic or bandwidth will be billed.

If a domain name is under attack and the attacks affect other CDN users or pose risks to CDN, CDN will ban the domain name, change its status to **Disabled**, and disable the acceleration service for it. The domain name cannot be accessed but its configuration is retained. When the attack stops, contact customer service to unban the domain name.

• Solutions

Solution	Description
Access control	You can use access control functions such as referer validation, IP address access control lists (ACLs), and token authentication for domain names to avoid unnecessary traffic or bandwidth consumption. For details, see Access Control.
Association between CDN and Cloud Eye	You can view basic data (such as traffic, bandwidth, and status codes) of domain names under your account in real time and set alarms. When the monitoring metrics trigger the alarm conditions, alarms are sent by email or SMS, helping you detect potential risks in a timely manner. For details, see Cloud Eye Monitoring .
Usage cap	When the usage cap is enabled, CDN will disable the acceleration service for your domain names when the access bandwidth reaches the threshold you specify to avoid excessive fee.
Request rate limiting	If request rate limiting is enabled, when a single request reaches the rate limit condition, the access speed of the user is limited to reduce the risk of burst bandwidth.

NOTE

To ensure data integrity and accuracy of bills, a bill is usually generated after a billing cycle ends. Therefore, the bill time is later than the time when resources are consumed, and resource consumption cannot be reflected in real time through bills. This is due to the distributed architecture of CDN points of presence (PoPs).

2.3 How Am I Billed If My Traffic Package Is Used Up?

You will be billed on a pay-per-use basis if your traffic package is used up or expires and the fees will be deducted from your account balance.

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2.4 Do I Have to Consider the Service Area and Origin Location When Buying a Traffic Package?

- You do not need to consider the origin location.
- CDN traffic packages are classified by service area.
 - A Chinese mainland traffic package is used for traffic generated on the Chinese mainland.
 - An International traffic package is used for traffic generated outside the Chinese mainland.

2.5 Is Traffic for HTTP and HTTPS Requests Deducted from the Same Traffic Package?

Yes. A traffic package is used to deduct the consumed traffic, regardless of the access type.

2.6 Can I Unsubscribe from a CDN Traffic Package?

No.

2.7 How Long Is the Validity Period of a CDN Traffic Package? Can I Renew the Package?

A CDN traffic package is valid for one month, six months, or one year.

Traffic arrives in your account at one go. Traffic that is not used up within the validity period will be discarded. A CDN traffic package can be used for all domain names under your account. Traffic packages take effect immediately after purchase and cannot be unsubscribed.

Renewal

You can renew a traffic package before it expires or when your resource is in the grace period or retention period. Currently, traffic packages do not support automatic renewal.

Procedure

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

The CDN console is displayed.

- 2. On the top menu bar, choose **Billing & Costs** > **Renewal**.
- 3. On the **Renewals** page, renew a traffic package or buy it again.
 - Renew it to extend its validity period or restore the quota when it expires.
 For details, see Renewal Rules.

2.8 Can a CDN Traffic Package Be Associated with a Specific Domain Name?

No. All domain names under your account share the CDN traffic package.

When you choose traffic-based billing and have purchased a traffic package, the traffic consumption of all domain names under your account will be deducted from the traffic package.

2.9 Can I View the Billing Information of a Single Domain Name?

No. CDN issues bills by tenant. However, you can view the traffic or bandwidth utilization of domain names under a tenant in **Analytics**. Log in to the CDN console, choose **Analytics** > **Traffic** in the navigation pane, and view details in the **Domain Name Traffic/Bandwidth Utilization** area.

2.10 Can CDN and OBS Share a Traffic Package?

No.

CDN and OBS are two different products. Their billing options and prices are different.

2.11 Does CDN Charge for HTTP/HTTPS Requests?

If you have enabled whole site acceleration, billing items include the traffic or bandwidth and number of requests. For details about the price, see **Billing**.

Price for whole site acceleration = Basic price (by traffic or bandwidth) + Billing for user requests to the system (including HTTP and HTTPS requests)

Other acceleration services, such as website acceleration and file download acceleration, only generate basic fees (traffic or bandwidth fees), even when HTTPS certificates are configured.

2.12 What Traffic Is Consumed When CDN Requests Resources from OBS?

If OBS is used as an origin server, the traffic consumed by CDN to request resources from OBS is origin pull traffic, which is billed by OBS. See Figure 2-1.



2.13 How Do I Purchase a CDN Traffic Package?

If you selected traffic-based billing when you enabled CDN, you can purchase traffic packages on the CDN console.

- Log in to Huawei Cloud console. Choose Service List > Content Delivery & Edge Computing > Content Delivery Network. The CDN console is displayed.
- 2. In the **Resource Packages** area on the **Dashboard** page, click **Buy**.
- 3. Buy traffic packages based on your needs.

2.14 How Do I Set an Alert for the Remaining Traffic in a Traffic Package?

Procedure

- 1. Log in to Huawei Cloud console and go to the Billing Center.
- 2. In the navigation pane, choose **Resource Packages**.
- 3. Click **Usage Alert**. In the dialog box displayed, enable the **Enable/Disable** switch and set a remaining usage threshold.
- 4. Click **OK**.

2.15 How Do I Check the Bills of 95th Percentile Bandwidth?

- 1. Log in to the **Billing Center** and choose **Billing** > **Usage Details** in the navigation pane.
- Set Service Type to Content Delivery Network (CDN), select a time next to Used, set Usage Type to 95Peak, and click Export. Figure 2-2 shows the export result.

Region	Global	
Resource ID	7cd33 10392	
Resource Name		
Billing Method	Monthly 95th percentile peak bandwidth	
Valid Days	30	
Billed Bandwidth	0. 058898	
Calculation Description	In the 95th percentile calculation, bandwidth statistics are collected every 5 minutes, and there are 288 statistical points a day. In descending order, sort all statistical points of every valid day (on which bandwidth is consumed) in the current month. Remove the highest values of 5%. Then calculate the maximum value among the remaining statistical points, and the maximum value is considered the billed bandwidth of the current month.	
Time	Usage (Mbps)	
2022/9/1 0:00	0.05872	
2022/9/1 0:05	0.008492	
2022/9/1 0:10	0.009579	
2022/9/1 0:15	0.009754	
2022/9/1 0:20	0.058219	
2022/9/1 0:25	0.009765	
2022/9/1 0:30	0.009816	
2022/9/1 0.35	0 009816	

Figure 2-2 Exported data

NOTE

- For details about the pay-per-use billing mode and rules of CDN, see **Billing Items**.
- This method applies only to CDN customers with monthly payment.

2.16 Can an International Traffic Package Be Used for the Chinese Mainland?

No.

You need to **buy** a Chinese mainland traffic package if the service area of your domain name is Chinese mainland.

2.17 When Does a CDN Traffic Package Take Effect?

It takes effect immediately after purchase and cannot be unsubscribed.

2.18 Do I Need to Consider the User Location When Buying a Chinese Mainland Traffic Package?

No. If you have a Chinese mainland traffic package, you can deduct traffic generated by all points of presence (PoPs) in the Chinese mainland.

2.19 Can Multiple Acceleration Domain Names Share the Same Traffic Package?

Yes.

After a CDN traffic package is purchased, all domain names under your account can use traffic from the same package.

2.20 Why Is the Traffic Usage in a Traffic Package Different from That Shown in Analytics?

Possible causes:

1. CDN statistics on the **Analytics** page are 1 hour later than real-time data. However, there is a 4 hour delay before traffic can be billed. Therefore, the bill time is later than the statistical time. As a result, traffic displayed on the **Analytics** page is greater than that deducted from the current traffic package.

For example, if 20 MB of traffic is consumed from 12:00:00 to 13:00:00,

- a bill is generated at 17:00:00 for this.
- the 20 MB of traffic is added to the **Analytics** page at 14:00:00.

However, the 20 MB of traffic is billed until 17:00:00. As a result, the data will be inconsistent.

NOTE

If you are billed by traffic on a pay-per-use basis, traffic deducted may also be different from that displayed on the **Analytics** page.

2. The **Analytics** page on the CDN console displays the logged traffic statistics of acceleration domain names. These statistics are obtained from logs at the application level. However, the billable traffic (the actual network traffic) is 7% to 15% higher than the displayed statistics on the **Analytics** page because TCP/IP packet headers and TCP retransmissions also need to be counted in. Therefore, the billable traffic will be typically 10% higher than the statistics displayed on the CDN console. As a result, the used traffic in the traffic package is higher than that displayed on the **Analytics** page.

2.21 Why Is My Account Balance Deducted Even If I Have Purchased a Traffic Package?

Possible causes:

- 1. Your CDN services are not billed by traffic.
 - Traffic usage is deducted from the traffic package only when your CDN services are billed by traffic.
- 2. You are using whole site acceleration.
 - The whole site acceleration fee contains the basic fee for traffic or peak bandwidth and the fee for HTTP and HTTPS requests generated by whole site acceleration. The latter is deducted from your account balance.
- 3. The service area of your domain names is **Global**, but you have only purchased a **Chinese mainland** or **International** package.
 - A Chinese mainland traffic package can only be used to deduct traffic generated by points of presence (PoPs) in the Chinese mainland. An International traffic package can only be used to deduct traffic generated by PoPs outside the Chinese mainland.

If your account balance is insufficient, you may not be able to use CDN due to arrears. Top up your account to prevent services from being affected by insufficient account balance.

- 4. The used traffic exceeds traffic package quotas.
 - When your usage exceeds quotas of your purchased traffic packages, the system deducts the fee of additional traffic usage from your account balance on a pay-per-use basis.

2.22 If I Purchase Only an International Traffic Package, How Will I Be Billed for Traffic Generated on the Chinese Mainland?

Traffic packages are region-specific. Traffic packages in a region cannot be used to deduct traffic generated in other regions.

- 1. When the service area of a domain name is global:
 - If you purchase only a traffic package outside the Chinese mainland, the traffic generated when users in the Chinese mainland access the domain name is charged in pay-per-use mode (account balance is deducted). That is, CDN charges you based on the traffic used by your users to access CDN points of presence (PoPs). For details, see Price Calculator.
 - If you purchase only a traffic package in the Chinese mainland, the traffic fees generated when users outside the Chinese mainland access the domain name are also charged on a pay-per-use basis (account balance is deducted). The detailed rules are the same as those described above.
- 2. When the service area of a domain name is the Chinese mainland:
 - You only need to purchase traffic packages in the Chinese mainland. Traffic packages outside the Chinese mainland cannot be used.
- 3. When the service area of a domain name is outside the Chinese mainland:
 - You only need to purchase traffic packages outside the Chinese mainland. Traffic packages in the Chinese mainland cannot be used.

2.23 Is Billing for On-Demand Service Acceleration the Same as That for File Download Acceleration?

CDN is billed based on the used traffic or bandwidth, regardless of the acceleration service types. For details, see **Billing**.

2.24 What Is a Retention Period?

It is the time Huawei Cloud provides for a customer to renew or repay when the yearly/monthly resources are still not renewed, the pay-per-use resources are still in arrears, or the overdue bills are still not paid off. Within the retention period, you cannot access or use your cloud service but your data stored in the cloud

service is still retained. After a resource enters a retention period, Huawei Cloud will notify you of this by email or text message. If you still do not complete the renewal or payment after the retention period has ended, your data stored in the cloud service will be deleted and the resource will be released.

For details about the retention period, see **Retention Period**.

2.25 If Global Acceleration Is Configured, Are the Traffic and Bandwidth Consumptions in and Outside the Chinese Mainland Billed Separately?

Yes. The traffic and bandwidth consumed in the Chinese mainland are billed based on the prices for the Chinese mainland. The traffic and bandwidth consumed outside the Chinese mainland are billed based on the prices for outside the Chinese mainland. The unit prices are different. For details, see **Billing**.

2.26 Why Is My CDN Not Working When My Account Is in Arrears?

Possible causes:

- 1. You are billed on a pay-per-use basis. Your account balance has been used up.
- 2. Your account balance is used up due to using other Huawei Cloud services and you are using CDN services that need to be deducted from your account balance, such as pay-per-use CDN services and whole site acceleration. In this case, CDN cannot be used due to outstanding payments.

About Arrears

- If your account is in arrears, a retention period will start. For details about how to handle service suspension due to arrears, see Service Suspension and Resource Release.
- During the grace period, the CDN service is not stopped, but domain names cannot be added to CDN.

Solutions

• If you have purchased a traffic package, enable the remaining usage alert by following the instructions in **How Do I Set an Alert for the Remaining Traffic in a Traffic Package?** If the remaining quota of the traffic package drops below a configured threshold, an SMS message or email will be sent to you.

Write-off

• You can view the outstanding amount of your account in the **Billing Center** and top up the account to offset the outstanding amount.

2.27 An OBS Bucket Is Being Used as the Origin Server and an OBS Pull Traffic Package Has Been Purchased. Why Isn't the Origin Pull Traffic Generated by CDN Being Deducted From the OBS Pull Traffic Package?

Perform the following operations to locate the fault:

- Check whether the purchased pull traffic package and the bucket configured as the origin server are in the same region. If they are not in the same region, origin pull traffic generated by CDN cannot be deducted from the package. In this case, purchase a new pull traffic package.
- Log in to the CDN console and choose **Domains** in the navigation pane. Click the domain name that uses the OBS bucket as its origin server. Ensure that the OBS bucket is set as the origin server in the type of **OBS bucket** rather than **Domain name**. If the type is **Domain name**, the OBS pull traffic packages cannot be used. If the OBS bucket is not set as the origin server in the type of **OBS bucket**, modify the origin server settings.
- Ensure that the OBS bucket version is 3.0 or later. If the bucket version is not 3.0 or later, the pull traffic package cannot be used.

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3 Domain Name Settings

3.1 Does CDN Support the Configuration of Domain Names with Ports?

Yes.

- Acceleration domain name: The default port numbers are 80 and 443. If you have special ports, change them to port 80 and 443.
- Origin server: You can add a port for origin pull in the Origin Server Settings area under the Basic Settings tab of the CDN console. For details, see Origin Server Settings.

3.2 Can a Subdomain Name Be Used as an Acceleration Domain Name?

Yes. If the service area of a subdomain name includes the Chinese mainland, the subdomain name must be licensed by the Ministry of Industry and Information Technology (MIIT) before you can add it as an acceleration domain name.

3.3 Can the CNAME of an Acceleration Domain Name Be Directly Accessed?

No.

After a domain name is added, the system will assign a CNAME record (in the form of ***.c.cdnhwc1.com**) to the domain name. Then, you need to configure a CNAME record with your domain provider, specifying that the domain name ending with ***.c.cdnhwc1.com** is an alias for your domain name. After the CNAME record takes effect, all requests for your domain name will be sent to CDN points of presence (PoPs).

3.4 Do I Need to Configure a Certificate for the Origin Server After Adding a Security Certificate to CDN?

The security certificate configured on the CDN side is used for encrypted transmission when users access CDN points of presence (PoPs). If you want to encrypt the transmission from CDN PoPs to your origin server, you are advised to configure the security certificate on the origin server.

3.5 Can a Rejected Domain Name Be Modified and Added Again 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. In this case, apply for a license from the MIIT and **review the domain name** on the CDN console.

3.6 How Do I Check Whether the CNAME Record Has Taken Effect?

The time it takes for the CNAME record to take 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.



3.7 How Do I Configure Multiple Domain Names to Point to the Same Website?

- 1. When adding a domain name to CDN, enter multiple acceleration domain names in the **Add Domain Names** dialog box.
- 2. Enter the same origin server address.
- 3. Click OK.

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

Yes.

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

3.9 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?

Yes.

Licensing a domain name does not depend on the region of the domain name provider or the area where the website server is located. What matters is the service area of the CDN acceleration service. 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.

3.10 Can a Level-2 Domain Be Accelerated If It Is Resolved Outside the Chinese Mainland and Only Its Level-1 Domain Name Has Been Licensed?

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.

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

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

3.12 Can the OBS Bucket's Domain Name Be Used as an Acceleration Domain Name If an OBS Bucket Is Configured as an Origin Server?

No. An acceleration domain name cannot be same as the origin domain. You need to prepare a domain name for acceleration.

3.13 What Requirements Should I Meet Before Adding a Domain Name Whose Service Area Is Chinese Mainland?

- Your HUAWEI ID has completed real-name authentication. •
- Your domain name has been licensed and the ICP license is still valid. •
- Content stored in your origin server has been reviewed and approved. •

For details about how to quickly access CDN, see **Overview**.

3.14 Can I Limit Access to Domain Names Based on QPS?

No.

You are advised to check access logs for any suspicious access. If you find suspicious accesses from any IP addresses, configure an IP address blacklist to block them.

3.15 Does Huawei Cloud CDN Accelerate Content **Redirected from VPN?**

No.

3.16 Does My Domain Name Have to Be Resolved on Huawei Cloud?

No.

CDN only accelerates content delivery. No matter where your domain name is resolved, make sure it resolves to the CNAME record provided by CDN.

3.17 Can an Acceleration Domain Name Be Used in and **Outside the Chinese Mainland?**

Yes

When adding a domain name, set the service area to **Global**.

CDN

3.18 Why Do My Domain Requests Still Go to CDN PoPs After My Domain Name Has Been Disabled and Domain Resolution Has Been Changed?

Possible causes:

- The carrier and users have cached the DNS resolution result locally. Before the cache expires, domain requests are still sent to CDN points of presence (PoPs). They will be sent to the new DNS record only after the cache expires.
- Before the domain name is disabled, a user pings the domain name to obtain the IP addresses of CDN PoPs, and then binds the domain name with the PoP IP addresses in the local **hosts** file. It means that the user specifies a resolution to bypass normal DNS resolution. As a result, requests from the user are sent to CDN PoPs.

Solutions:

- If the problem is caused by local cache, wait until the cache expires.
- If a user binds the domain name with CDN PoPs in the local **hosts** file, the user needs to unbind them.

3.19 How Do I Configure a Certificate If My Domain Name Is a Wildcard Domain?

When you configure a wildcard-domain certificate, the wildcard domain must match the certificate at the same level. For example:

- 1. If your domain name is a.b.example.com or *.b.example.com, the wildcarddomain certificate must be *.b.example.com rather than *.example.com or *.a.b.example.com.
- 2. If your domain name is a.example.com or *.example.com, the wildcarddomain certificate must be *.example.com rather than *.b.example.com.

Configuration Method

• To configure a certificate for a single domain name:

Log in to **Huawei Cloud console** and choose **Service List** > **Content Delivery & Edge Computing** > **Content Delivery Network**. In the navigation pane of the CDN console, choose **Domains**. Click **Configure** in the row containing the target domain name, click the **HTTPS Settings** tab, and configure a certificate.

• To configure a certificate for domain names:

Log in to Huawei Cloud console and choose Service List > Content Delivery & Edge Computing > Content Delivery Network. In the navigation pane of the CDN console, choose Certificates. On the Certificates page, click Configure Certificate.

3.20 Does CDN Support Modification to Acceleration Service Types?

You can change the service type among **Website**, **File download**, and **Ondemand service**. However, you cannot change it from **Whole site** to others.

3.21 Why Am I Seeing the "Incomplete certificate chain" Message?

This is maybe because:

• Certificates are installed in the wrong order.

Sort the certificates with the root certificate at the end. For example, if you have three certificates, A, B, and C; and the root certificate, the order should be: certificate C - certificate B - certificate A - root certificate.

For details about how to get the certificate chain right, see **HTTPS Certificate Requirements**.

Alternatively, you can use an online certificate chain tool to fix the incomplete certificate chain.

3.22 Why Am I Seeing a Message Indicating that the Certificate Format Is Incorrect?

HTTPS configuration only supports certificates and private keys in the PEM format. Different certificate authorities have different requirements on the upload of the certificate body. For details about the format requirements, see HTTPS Certificate Requirements. If your certificate format is not PEM, use an online third-party tool to convert the certificate before uploading it.

3.23 Are Self-Signed HTTPS Certificates Supported?

No.

You are advised to buy trusted root certificates. For details about HTTPS certificates, see **HTTPS Certificate Requirements**.

3.24 Does CDN Support Force HTTPS?

Yes. Log in to the CDN console and choose **Domains** > **Configure** > **HTTPS Settings** to configure force HTTPS.

3.25 After Force HTTPS Is Enabled, Why Are Parameters Missing in a POST Request When I Call an API to Request HTTP?

A 301/302 redirect is a practical way of redirecting your site from HTTP to HTTPS. If a client does not send requests, parameters will be missing, causing no response. The browser can be accessed because the browser submits parameters again after receiving a 302 status code. Therefore, after the client receives a 301/302 status code, the client needs to send a request again with target parameters carried.

If you want to open up APIs and enable force HTTPS, you are advised to set the API to **https://endpoint**/*{url}* to prevent missing parameters during 301/302 redirect when an API request is sent.

3.26 Can I Use HTTP After HTTPS Is Configured?

Yes. Both HTTP and HTTPS requests are supported.

3.27 How Do I Do If the ICP License of an Acceleration Domain Name Expires?

You need to apply for a new license from the MIIT.

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

4 Cache Settings

4.1 Will the Cache on CDN PoPs Be Updated in Real Time?

Cached content on CDN points of presence (PoPs) is not updated in real time. CDN PoPs only obtain new content from the origin server when the previously cached content expires. If you want to update content cached on CDN PoPs, configure cache rules or submit cache purge or prefetch tasks. For details, see **Cache Rules**.

4.2 Does Huawei Cloud CDN Support Regular Expressions for Cache Policy Setting?

Currently, wildcard character (*) matching is supported for specific files. Other characters are not supported. The directory does not support regular expressions but will support them in the future.

4.3 Does CDN Support Batch Configuration of Cache Policies for Acceleration Domain Names?

No. You are advised to call APIs to modify cache configurations. For details, see **API Reference**.

4.4 Does CDN Cache Status Codes 404 and 403?

By default, CDN caches status codes 400, 404, 416, 500, 502, and 504 for 3 seconds and does not cache other 4XX and 5XX status codes. You can configure the time to live (TTL) for status codes on the CDN console. For details, see **Status Code Cache TTL**.

4.5 What Are the Default Cache Rules? Can I Modify the Cache TTL?

Each domain name is configured with one or more default cache rules.

- If the service type is website acceleration, file download acceleration, or ondemand service acceleration, and the origin server address is an origin IP address or origin domain, two default cache rules are available.
 - The default cache time to live (TTL) for common dynamic files (for example, .php, .jsp, .asp, and .aspx files) is 0. CDN pulls content from the origin server directly when receiving requests for such dynamic files. You can modify and delete this rule.
 - The default cache time to live (TTL) for all files is 30 days. You can modify but cannot delete this rule.
- If you have selected **OBS bucket** as the origin server type, there will be only one cache rule for all files by default. You can modify but cannot delete this rule.
- If the service type is whole site acceleration, there will be a cache rule for all files by default. In this rule, the cache TTL is 0. You can modify but cannot delete this rule.

If you want to change the cache TTL, choose **Domains** > **Configure** > **Cache Settings** on the CDN console to change it.

4.6 Why Is the Cache Hit Ratio of a Domain Name with Whole Site Acceleration Greater Than 0?

Symptom: The service type of an acceleration domain name is whole site acceleration. The cache TTL of all files is set to **0**, but the cache hit ratio is greater than 0.

Cause: CDN has an aggregation mechanism. When multiple requests to the same file are sent to CDN PoPs at the same time, CDN pulls origin content for only one request. Therefore, the request hit ratio and traffic hit ratio may be greater than 0.

4.7 Does the Path in Cache Settings Refer to a Web Address or File Path on the Server?

It refers to a web address.

4.8 Why Is the CDN Cache Hit Ratio Low?

Possible causes:

• The HTTP header has been incorrectly configured. As a result, the content cannot be cached. Check the Cache-Control settings of your origin server. If **cache-control** is set to **no-cache**, **no-store**, **max-age=0**, or **private** on the

origin server and **Origin Cache Control** is enabled on CDN, CDN cannot cache resources, resulting in a low hit ratio.

- The cache time to live (TTL) you have configured is too short. In this case, CDN points of presence (PoPs) will not be able to cache data. They will frequently pull the fresh content from the origin server. As a result, the CDN cache hit ratio will be low.
- A large portion of the content on your origin server is dynamic. CDN mainly accelerates static content (such as CSS, JS, HTML, TXT files, pictures, and video). Dynamic content (such as ASP, JSP, PHP files, APIs, and dynamic interaction requests) is typically pulled from the origin server.
- The cache is being refreshed too frequently. After a cache purge task is submitted, the cached content on CDN PoPs will be forced to expire. If a user accesses a URL after it has been refreshed, CDN pulls content from the origin server, and the hit ratio will decrease.
- If your origin server has a large number of resources and does not support range requests, CDN PoPs will pull complete resources, increasing the pull traffic and affecting the traffic hit ratio.
- The website is not accessed very frequently. Content cached on the CDN PoPs may be deleted due to infrequent access. As a result, the fresh content is pulled when it is accessed, and the CDN cache hit ratio will decrease.
- An exception occurred on your origin server. In this case, troubleshoot your origin server first.
- HEAD requests are sent. By default, CDN does not cache HEAD requests. Even if cache prefetch is performed, HEAD requests are not cached.

4.9 Why Am I Able to Access and Download a File After It Is Deleted from an OBS Bucket?

It is because the file still stays in the cache and the cache is not refreshed. You are advised to submit cache purge requests if content on the origin server is updated. For details, see **Cache Purge**.

4.10 How Do I Cache the Homepage (Root Directory)?

On the CDN console, choose **Domains** > **Configure** > **Cache Settings**. In the **Configure Cache Rule** dialog box, set **Type** to **Homepage** and set the cache rule for the root directory.

4.11 How Do I Check Whether a Cache Is Hit?

- 1. Open Google Chrome and press F12.
- 2. Choose Network.
- 3. Enter the website to be accessed in the address box and press **Enter**. View the response headers of the URL of a specific resource and perform the following operations:

- If the x-hcs-proxy-type header does not exist, check the value of the X-Cache-Lookup header. Value Hit From MemCache, Hit From Disktank, or Hit From Upstream indicates that the cache is hit, whereas other values indicate that the cache is not hit.
- If neither the **x-hcs-proxy-type** nor **X-Cache-Lookup** header exists, check the value of the **age** header. Values greater than 0 indicate that the cache is hit, and the value **0** indicates that the cache is not hit.

4.12 Why Is the Latest Content Inaccessible Even When the Cache TTL Is Set to 0?

If the cache time to live (TTL) is set to 0, CDN pulls the requested content from the origin server. After the cache TTL is reset, the new setting does not take effect immediately. Wait for a few minutes and try again. You can also manually purge the cache to force the cache to expire.

4.13 Does Huawei Cloud CDN Support Caching octetstream Stream Files?

Yes.

4.14 Why Are Certain Files Not Downloadable Even Though They Have Not Expired (365 Days)?

Although their cache time to live (TTL) is 365 days, CDN points of presence (PoPs) regularly delete cached content that has not recently been accessed, regardless of the content's expiration time.

You can prefetch resources so that users can obtain the most recent resources from CDN PoPs upon first access. For details, see **Cache Purge and Prefetch**.

4.15 How Do I Configure Cache for Resources That Do Not Need to Be Cached?

You can set the cache time to live (TTL) of these resources to **0** in a cache rule.

4.16 Can I Specify a Directory and Filename Extension for Caching?

Yes. For details, see Cache Settings.

4.17 When Hotlinking Happens, Will the Previous Cache Still Exist After I Change the Domain Name?

Yes.

4.18 All Resources Are Preheated, and the Cache TTL Is One Year. Why Is the Requested Content Still Being Pulled from the Origin Server?

If the cache time to live (TTL) is set to 365 days and only a few requests are made, CDN points of presence (PoPs) will periodically clear the cache. Therefore, if a user requests the content, it may have been cleared and then CDN has to pull that content from the origin server.

You can prefetch resources again so that users can obtain the most recent resources from CDN PoPs upon first access. For details, see **Cache Purge and Prefetch**.

4.19 How Do I Synchronize Content Cached on CDN PoPs with That on the Origin Server?

- You can set cache rules. For content that is frequently updated, you can set a cache rule with a short cache time to live (TTL). For content that is not frequently updated, you can set a cache rule with a long cache TTL to reduce the pressure on the origin server.
- If the configured cache TTL is not reached but new content is released or content is deleted on the origin server, you can manually purge the cache.
 - Log in to Huawei Cloud console and choose Service List > Content Delivery & Edge Computing > Content Delivery Network. In the navigation pane, choose Prefetch & Purge. On the Cache Purge tab, refresh the cache.
 - Call APIs to force the current content to expire and then prefetch new content. For details, see API Reference.

NOTE

If only one file needs to be updated, use URL purge to refresh the file. If you use directory purge, all files in the directory will be refreshed and it will take a long time.

4.20 Why Does a Cache Rule Not Take Effect?

Possible causes and solutions:

1. You have just completed configuring the cache rule and it takes about 5 minutes for the rule to take effect. Verify cache configuration after the rule takes effect.

- 2. You have modified the cache rule. The new rule does not apply to content that has been cached but only applies to new content. If you want the new rule to take effect on the cached content, purge the cache on points of presence (PoPs).
- 3. Cache rules have priorities. The cache rule with a higher priority (large value) is matched first. Check the priority of your cache rules.

Example: You have configured a **File type** cache rule for domain name **www.example.com** to cache JPG files for only one day. The priority of the cache rule is set to **2**.

Туре	Content	Priority	Maximum Age
Full path	/test/*.jpg	8	3 days
Directory	/test/folder01	6	5 days
File type	.jpg	2	1 days
All files		1	30 days

Result: When a user accesses the **www.example.com/test/cdn.jpg** file, two cache rules, **Full path** and **File type**, can be applied to this file. The priority of the **Full path** rule is **8**, which is higher than that of the **File type** rule. Therefore, the system follows the **Full path** rule **/test/*.jpg** and caches the file for three days.

Method: To make the **File type** rule to take effect, set its priority to a value greater than **8**.

5 Troubleshooting

5.1 Why Am I Seeing a Message Indicating that the Domain Name Already Exists When I Add a Domain Name for CDN Acceleration?

If you have the permission to resolve the domain name, **submit a service ticket**.

5.2 Why Is My Domain Name Inaccessible After HTTPS Secure Acceleration Is Configured?

Possible cause: The origin protocol of the domain name is HTTP and force redirect from HTTP to HTTPS is configured on your origin server, so that the domain name cannot be accessed using HTTP or HTTPS.

In this case, a status code 301 is returned. CDN points of presence (PoPs) access the origin server using HTTP rather than HTTPS until the maximum number of retransmissions has been reached. As a result, the access will fail.

Solution: Go to the CDN console, choose **Domains** in the navigation pane, click **Configure** in the **Operation** column, click the **Origin Settings** tab, and set **Origin Protocol** to **Same as user**.

5.3 Why Am I Seeing a Message Indicating Insufficient Permission When I Call a CDN API as an IAM User?

Calling CDN APIs requires the CDN Administrator or the action permissions for the specific operation. In this case, check the permissions of the IAM user.

5.4 Why Is Data Obtained from a CDN PoP Not the Updated Data?

Cached content on CDN points of presence (PoPs) is not updated in real time. CDN PoPs only pull new content from the origin server when the previously cached content expires and then update the cache. After updating content on the origin server, you can submit cache purge requests to force the cached content on CDN PoPs to expire and ensure the latest content is updated. In this way, users can get the latest data when they access the website.

5.5 What Do I Do If the Browser Displays a Message Indicating that a Cross-domain Exception Occurs After CDN Is Enabled?

The possible reason is that some resources in the cross-domain request did not respond to the message header **Access-Control-Allow-Origin**. You can configure the response header information based on the domain name requirements. For details, see **HTTP Header Settings (Cross-origin Requests)**.

To prevent cross-domain errors caused by browser cache, clear browser cache after configuring **Access-Control-Allow-Origin**.

5.6 Why Is 304 Returned When a User Accesses a Resource Under My Acceleration Domain Name?

Status code 304 indicates that the resource has not changed since the last time CDN cached it.

When a client requests the resource for the first time, CDN returns the resource in a 200 response to the client. The response includes **ETag** that marks the time when the resource was last modified. When the client requests the resource again, if the **ETag** value is not modified, 304 is returned and the client loads the cached content. If the **ETag** value differs, the modification time is marked and CDN returns the new resource to the client. Details are as follows:

1. When a client accesses **1.jpg** for the first time, CDN returns the image in a 200 response to the client. Response headers include **Last-Modified** (last modification time) and **ETag**.

×	Headers Preview Response Initiator Timing	
▼ G	General	
	Request URL: http://rit hang/1.jpg	
	Request Method: GET	
	Status Code: 🔿 200 OK	
	Remote Address: 172.19.90.131:8080	
	Referrer Policy: strict-origin-when-cross-origin	
▼ R	Response Headers	View source
	Accept-Ranges: none	
	Access-Control-Allow-Origin: *	
	Age: 282	
	CloudServiceDiscount: CDN	
	Connection: keep-alive	
	Content-Disposition: inline	
	Content-Length: 63086	
	Content-MD5: 123	
	Content-Type: image/jpeg	
	Date: Mon, 13 Mar 2023 07:46:27 GMT	
	ETag: "cbca0f1b7978f809832efca5942ab71a"	
	Last-Modified: Mon, 30 May 2022 01:59:05 GMT	
1	nginx-hit: 1	
	Server: opennesty	

2. When the client accesses **1.jpg** again, the request headers carry the **Last-Modified** and **ETag** values. If the two values differ, CDN returns the latest image in a 200 response to the client. If not modified, the client loads the cached content.

× Headers Preview Response Initiator Timir	g
Status Code: 🖷 304 Not Modified	
Remote Address: 172.19.90.131:8080	
Referrer Policy: strict-origin-when-cross-origi	n
Response Headers	View source
Access-Control-Allow-Origin: *	
Age: 1465245	
CloudServiceDiscount: CDN	
Connection: keep-alive	
Content-Disposition: inline	
Content-MD5: 123	
Date: Mon, 13 Mar 2023 07:54:34 GMT	
ETag: "cbca0f1b7978f809832efca5942ab71a"	
Last-Modified: Mon, 30 May 2022 01:59:05 GMT	
nginx-hit: 1	
Server: opennesty	
via: EA-SGP-EDGE3-CACHE2[47],EA-SGP-EDGE3-CAC	HE5[0,TCP_HIT,45],EA-SGP-GLOBAL1-CACHE9[338],EA-SGP-GLOBAL1-CACHE22[0,TCP_HIT,332]
X-CCDN-CacheTTL: 10	
X-CCDN-Expires: 10	
x-hcs-proxy-type: 1	
x-obs-id-2: 32AAAQAAEAABAAAQAAEAABAAAQAAEAABC	;3DUC3NSwfPG0q3uivbB+0pm1grU9K8
x-obs-request-id: 000001867DAFF5339545FCC8ACC8	2177
▼ Request Headers	View source
Accept: text/html,application/xhtml+xml,appli	cation/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0
Accept-Encoding: gzip, deflate	
Accept-Language: zh-CN, zh;q=0.9	
Cache-Control: max-age=0	
Host: ritazhang.top	
If-Modified-Since: Mon, 30 May 2022 01:59:05 GM	IT
If-None-Match: "cbca0f1b7978f809832efca5942ab	71a"
Proxy-Connection: keep-alive	

3. The user can press **Ctrl+F5** to clear the client cache. When the user accesses the resource again, status code 200 will be returned.

5.7 Why Does Agency Creation for OBS Fail When an OBS Private Bucket Is Used as the Origin Server?

Possible causes:

1. Your IAM agency quota has been used up.

On the **Agencies** page of the IAM console, check whether the agency quota has been used up. If yes, delete unnecessary agencies or submit a service ticket to increase the quota.

2. You are an IAM user.

Check whether the IAM user has the Security Administrator permissions. If not, you cannot create an agency. For details about how to obtain the permissions, see **Assigning Permissions to an IAM User**.

5.8 Why Is the Accelerated Page Incorrect Even Though I Can Access the Origin Server?

It is possible that the origin server updated the content but points of presence (PoPs) of CDN are still caching outdated content. You are advised to purge or prefetch the cache on the CDN console. For details, see **Cache Purge and Prefetch**.

5.9 Why Can't a Web Page Be Properly Displayed After the Origin Server's IP Address Is Changed?

If the IP address of an origin server is changed, you need to manually refresh the cache. If you do not refresh the cache, CDN points of presence (PoPs) still cache outdated content. For details, see **Cache Purge and Prefetch**.

5.10 Why Do I Get an Access Failure and Access-Control-Allow-Origin Error?

This issue occurs due to the cross-origin setting.

Solution:

- 1. Click the target domain name on the **Domains** page.
- 2. On the Advanced Settings tab, click Edit next to HTTP Headers.
- 3. Select **Access-Control-Allow-Origin** and set its value to * or a specified domain name.

5.11 Why Does Baidu Spider Fail to Capture Data?

The IP address of a CDN point of presence (PoP) frequently changes. The captured IP address may be offline.

5.12 Why Are All Files in the Bucket Displayed When Users Request a File from an OBS Bucket Connected to CDN?

A user that has the read permission on an OBS bucket can read the object list of the bucket. When the user requests the domain name added to CDN, OBS returns the object list by default. You can use any of the following solutions:

- 1. If you use an OBS public bucket, perform the following steps to rectify the fault:
 - a. Enable static website hosting on OBS. For details, see **Configuring Static Website Hosting**.
 - b. Select **Static website hosting** on the origin server settings page.
 - i. Click the target domain name on the **Domains** page.
 - ii. On the **Basic Settings** tab, locate the corresponding OBS bucket origin server in the **Origin Server Settings** area.
 - iii. Click **Edit** in the **Operation** column of the origin server and select **Static website hosting**.
 - iv. Click OK.

D NOTE

When **Static website hosting** is enabled, the object list of the bucket may still be displayed due to cache on PoPs. In this case, purge the cache of the homepage URL.

- (Recommended) Set **Type** to **URL** when purging the cache of homepage URL.
- Setting **Type** to **Directory** will refresh all content in the directory, so CDN will need to pull content from the origin server, increasing the load on the origin server.
- 2. If you use an OBS private bucket, create a policy for the CDNAccessPrivateOBS agency to deny listing objects in the bucket.
 - a. In the navigation pane of the IAM console, choose **Agencies**. In the **Operation** column of CDNAccessPrivateOBS, click **Authorize**.
 - b. On the **Authorize Agency** page, click **Create Policy** and set required parameters.

Table 5-1	Parameters

Parameter		Description
Policy Name		Enter a policy name, for example, deny ListBucket.
Policy View		Select Visual editor.
Policy	Effect	Select Deny .
Content	Cloud service	Select Object Storage Service (OBS).

Parameter		Description
	Actions	Select obs:bucket:ListBucket.
	Resources	Select All.
	Request condition	-

- c. Click Next.
- d. On the Select Policy/Role page, select the created policy and click Next.
- e. On the **Select Scope** page, click **OK**. The authorization takes effect 15 to 20 minutes later.
- f. After the authorization takes effect, refresh the CDN cache and try again.

5.13 Why Does the Video Freeze After CDN Is Configured?

A possible cause is that the video file is not cached on a point of presence (PoP), resulting in slow requests.

You are advised to prefetch the video file before accessing it. After you submit a cache prefetch request, the origin server proactively sends the most current content to a CDN PoP to be cached. If a user requests the content, the CDN PoP immediately returns the cached content. It does not need to pull any new content. For details, see **Cache Purge and Prefetch**.

5.14 Why Is My CDN Disabled?

Possible causes:

- Your domain name is banned due to violations of content regulations (sexually-explicit, illegal drug, gambling, or extremist content).
- Your domain name's license has expired. Have your domain name reviewed after obtaining a new license.
- Your domain name has been attacked.

Solutions:

- 1. If your domain name is banned due to ICP license expiration, have it reviewed by referring to **Reviewing a Domain Name** after obtaining a new license.
- 2. If your domain name is banned due to content regulation violation, CDN can no longer be enabled for the domain name.
- 3. If your domain name is banned due to an attack, contact customer service to unban the domain name after the attack stops.

5.15 Why Does the System Always Display "301" After HTTPS Is Configured for a Domain Name?

Origin Protocol is set to **HTTP** for the domain name on the CDN console but **Force HTTPS** is enabled on your origin server.

You need to set **Origin Protocol** to **Same as user** under the **Origin Settings** tab of your domain name on the CDN console.

5.16 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 **How Do I** Check Whether the CNAME Record Has Taken Effect?

5.17 Why Are Incorrect Resources Being Pulled from My Origin Server?

The host may be incorrectly configured. A host is the host specified in HTTP request headers. It is the domain name of the site accessed by CDN during origin pull. For details, see **Host Header**.

NOTE

- After a domain name is added, CDN regards it as the host by default. If you do not want CDN to pull content from the acceleration domain name, set the host to specify the location of the requested content.
- If a Huawei Cloud OBS bucket is used as an origin server, the bucket's domain name is used as the host by default and cannot be changed.
- If you set your origin server address as a domain name, and specify the domain name as that of an object storage bucket of Huawei Cloud or another vendor, set the host to the domain name of your object storage bucket. Otherwise, the origin pull fails.

5.18 Why Is My Site Slow the First Time I Access It After CDN Is Configured?

The first time you access a site, CDN points of presence (PoPs) have not yet cached the resources. They still need to obtain resources from the origin server. To prevent such a situation, you can prefetch the cache.

5.19 Why Is My Acceleration Domain Name Inaccessible Outside the Chinese Mainland?

You may have only enabled CDN for the Chinese mainland. You need to add the domain name and select its service area as **Outside Chinese mainland** or **Global** on the CDN console.

5.20 Why Is a File in an OBS Bucket with CDN Acceleration Enabled Be Automatically Downloaded When I Access the File?

Online preview is not enabled. To enable it, log in to the CDN console, choose **Domains** in the navigation pane, click the target domain name, click the **Advanced Settings** tab, and set **Content-Disposition** to **inline**.

Content-Disposition

5.21 How Do I Do If a Domain Name Fails to Be Added?

Cause Solution	
The acceleration domain name is the same as the origin server domain name.	The acceleration domain name cannot be the same as the origin server domain name. Otherwise, an infinite loop occurs and CDN cannot pull content from the origin server. Change either of the domain name and try again.
The acceleration domain name has already been added.	Use another domain name as the acceleration domain name.
Your account has not completed real-name authentication.	If the service area of your acceleration domain name includes the Chinese mainland, complete real-name authentication and add the domain name again.
The acceleration domain name is restricted.	Submit a service ticket.
The origin server is a subdomain name of the acceleration domain name.	The origin server cannot be a subdomain name of a wildcard domain name that has been added to Huawei Cloud CDN for acceleration. Otherwise, origin pull fails. Change the origin server domain name and try again.

The following table lists the causes and solutions.

5.22 Why Is the Button for Adding a Domain Name Unavailable on the CDN Console?

It is possible is that your account is in arrears.

View the outstanding amount of your account in the **Billing Center** and top up the account to offset the outstanding amount.

6 Cache Purge and Prefetch

6.1 What Are the Differences Between Cache Purge and Cache Prefetch?

• Cache purge

After you submit a cache purge request, cached content on CDN points of presence (PoPs) will be forcibly expired. If a user requests that content, CDN has to pull fresh content from the origin server and then cache that new content.

• Cache prefetch

After you submit a cache prefetch request, the origin server proactively sends the most current content to a CDN PoP for caching. If a user requests the content, the CDN PoP immediately returns the cached content. It does not pull any new content.

6.2 Why Am I Seeing Insufficient Permission for Cache Purge and Prefetch?

Perform the following operations to rectify the fault:

- If you log in as an IAM user, check whether you have the permissions required to perform cache purge and prefetch. If you do not have the required permissions, apply for them from your account administrator.
- If you have the permissions required to perform cache purge and prefetch, check whether your account is in arrears.

6.3 Why Does a Cache Prefetch Operation Fail?

It is possible that:

1. A large number of files are being prefetched at the same time, and this occupies all of the origin server's bandwidth. Perform prefetch in batches, or increase the bandwidth of the origin server to improve the efficiency.

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- 2. The cache time to live (TTL) of your requested content is 0. Modify the cache setting.
- 3. **Cache-Control** is set to **private**, **no-cache**, or **no-store** on the origin server and **Origin Cache Control** is enabled on the CDN console.
- 4. You requested to prefetch directories or dynamic content.
- 5. Your origin content cannot be accessed.

6.4 Does Cache Purge Refresh Content Cached on All PoPs?

Yes.

6.5 Should I Enter an Origin URL or Domain Name URL for Cache Purge and Prefetch?

CDN can purge and prefetch URLs of domain names. Therefore, you need to enter a domain name URL.

6.6 Why Does a Prefetch Task Remain in the Being Processed Status for a Long Time?

Possible causes:

- The task was submitted during a peak hour, so it is still in the queue.
- You are prefetching a large number of files. Prefetch will pull content from the origin server so prefetching a large number of files may consume all of the bandwidth available for your origin server. You are advised to:
 - Divide the prefetch tasks into batches.
 - Prefetch files during off-peak hours, for example, at night.
 - Increase your origin server bandwidth.
- The task has been completed but the status is not refreshed on the console. Refresh the console page and check again.

6.7 How Do I Purge the CDN Cache Where the Domain Name Includes a Wildcard?

When purging the cache for a domain name that includes a wildcard, enter the URLs or directories of the level-2 domain names to be refreshed. Do not enter a URL containing a wildcard, such as https://*.example.com/file01.html or https://*.example.com/file02/.

Example:

• An acceleration domain name is ***.example.com**.

- The level-2 domain name housing the content whose CDN cache is to be refreshed is **abc.example.com**.
 - a. Enter the URL to be refreshed: https://abc.example.com/file01.html.
 - b. Enter the directory to be refreshed: https://abc.example.com/file02/.

6.8 Why Is the Content Not Updated Even After I Prefetched and Purged the Cache?

The interval between cache prefetch and purge may be too short. It is recommended that the interval be longer than 5 minutes.

6.9 Does CDN Support Directory Prefetch?

No. Only complete URLs can be prefetched.

6.10 Are Cache Purge and Prefetch Mandatory?

This depends on the scenario.

- If a file is updated on an origin server, the file needs to be updated on CDN points of presence (PoPs).
- It is recommended that large files, especially video files, be prefetched to improve user experience.
- Prefetch is not recommended for small files.

6.11 Do I Need to Purge or Prefetch the Cache of Both HTTP and HTTPS URLs?

No. You only need to purge or prefetch the cache of either HTTP or HTTPS URLs.

6.12 If CDN Is Enabled in and Outside the Chinese Mainland, Does It Need to Be Differentiated When Cache Purge and Prefetch?

No. You can directly purge and prefetch the cache of the corresponding URLs.

6.13 Can I Prefetch M3U8 Files?

Yes. When you prefetch M3U8 files, TS files under the M3U8 files are also prefetched.

6.14 Can the Cache Be Automatically Updated After a Static File on the Origin Server Is Updated?

No. You can manually purge the cache in either of the following ways:

- Log in to Huawei Cloud console. Choose Service List > Content Delivery & Edge Computing > Content Delivery Network. In the navigation pane, choose Prefetch & Purge. On the Purge tab, purge the cache.
- 2. Call APIs to force the current content to expire and then prefetch new content. For details, see **API Overview**.

6.15 Which Should I Do First, Purge or Prefetch, When I Want to Update Cache?

If your origin server content is updated and you want to update the cache on CDN points of presence (PoPs):

- Purge the cache first. When cache purge is completed (about 5 minutes), prefetch the cache.
- If you directly perform cache prefetch, content that has been cached on CDN PoPs will not be updated.

If your domain name is added to CDN for the first time and no content is cached on CDN PoPs, you can directly perform cache prefetch to cache the content on PoPs.

7 Security

7.1 What Security Capabilities (Anti-DDoS/CC Attack Defense/Anti-hotlinking) Does CDN Provide?

- By adding your domain name to Huawei Cloud CDN, you can have your origin IP address hidden to prevent the origin server from being exposed to attackers.
- Huawei Cloud CDN has more than 2,000 points of presence (PoPs) on the entire network. CDN effectively relieves the pressure of DDoS/CC attacks on the origin server and prevents the origin server from being paralyzed due to attacks. If CDN PoPs fail to provide services due to heavy attack traffic, CDN will temporarily ban the domain name, change its status to **Disabled**, and disable the acceleration service for it. The domain name cannot be accessed but its configuration is retained.
- CDN supports referer validation, IP address access control lists (ACLs), and token authentication. For details, see **Access Control**.

7.2 Can I Configure Referer Validation to Prevent Hotlinking?

Yes. Log in to the CDN console and choose **Domains** > **Access Control** > **Referer Validation**.

7.3 Does CDN Support IP Address Filtering?

Yes.

To prevent attacks from specific IP addresses, you can set a blacklist to filter out requests from these addresses. Log in to the CDN console and choose **Domains** > **Access Control** > **IP ACL** to configure the IP address blacklist.

7.4 How Does CDN Respond to CC Attacks?

In a challenge collapsar (CC) attack, the attacker uses a proxy server to generate and send disguised requests to the target host. The attacker keeps sending a large number of data packets to target servers to exhaust server resources and break them down. If a site is attacked, CDN points of presence (PoPs) will bear the attack traffic. Therefore, the origin server will not break down.

- CDN has a preset policy against CC attacks. To disable this policy, submit a service ticket.
- If CDN PoPs fail to provide services due to heavy attack traffic, CDN will temporarily ban the domain name, change its status to **Disabled**, and disable the acceleration service for it. The domain name cannot be accessed but its configuration is retained. When the attack stops, contact customer service to unban the domain name.
- You will be billed for the traffic generated by CDN PoPs during attacks.
- If your acceleration domain name has burst traffic, for example, during new function release, the domain name may be considered to be under attack. Contact technical support in advance to avoid service loss.

7.5 Does CDN Prevent Content Hijacking?

Yes. HTTPS secure acceleration can be used to prevent content hijacking. For details about how to configure HTTPS, see **HTTPS Settings**. However, if domain hijacking occurs before accessing the CDN service, CDN cannot detect it.

7.6 Does CDN Have Anti-DDoS Capabilities?

Yes. CDN's anti-DDoS capabilities depend on the capacity of points of presence (PoPs). If CDN PoPs fail to provide services due to heavy attack traffic, CDN will temporarily ban the domain name, change its status to **Disabled**, and disable the acceleration service for it. The domain name cannot be accessed but its configuration is retained. The traffic generated by attacks will be charged.

7.7 Can CDN, WAF, and AAD Be Used Simultaneously?

No.

- CDN can be used with WAF. The traffic flow is: browser > CDN > WAF > origin server. For details, see Accelerating Resources Protected by WAF.
- CDN cannot be deployed before or after AAD.

7.8 Can Certificates Be Updated Without Service Interruption?

Yes.

You can choose **Domains** > **Configure** > **HTTPS Settings** on the CDN console to update SSL certificates.

7.9 If a Referer ACL Have Been Configured for an OBS Bucket, Will the Settings Take Effect on the CDN Side?

No.

The settings will not take effect. CDN cannot predict the OBS bucket configuration. Visit **Referer Validation** to learn how to configure it on the CDN side.

7.10 Does CDN Detect Viruses in an Acceleration File?

No.

CDN does not check whether your file content contains viruses. If your file content contains viruses, the carrier and MIIT will notify you so that you can take appropriate measures. If the risk is severe, the carrier and MIIT will disable the URL and then notify you.

7.11 Can Multiple Certificates Be Configured for a Domain Name?

No.

Only one certificate can be configured for a domain name.

7.12 Will the Traffic Pass Through WAF If Both CDN and WAF Are Configured?

There are two situations:

- If the requested content is found in the cache, the traffic does not pass through WAF. CDN directly serves the requested content.
- If the requested content is not found in the cache, the traffic passes through WAF and then reaches the origin server. See the following figure.



For details about how to configure both CDN and WAF, see **Combining CDN and WAF to Get Improved Protection and Load Speed**.

7.13 How Do I Check If CDN Is Being Maliciously Used?

If your site is attacked or has malicious traffic coming, there may be sudden traffic spikes that result in a bill higher than your normal expenditures. This part describes the potential risks and solutions.

Risks

Attacks and malicious traffic generate excessive bandwidth usage, and you need to pay significantly more than you usually do.

- Solutions
 - a. Configure access control (including referer validation, IP address blacklist and whitelist, and token authentication) for domain names to avoid unnecessary traffic or bandwidth consumption. For details, see Access Control.
 - b. Enable **balance alert**. If the available balance in your account is lower than a specific amount, the system will send you an SMS alert.

NOTE

To ensure data integrity and accuracy of bills, a bill is usually generated after a billing cycle ends. Therefore, the bill time is later than the time when resources are consumed, and resource consumption cannot be reflected in real time through bills. This is due to the distributed architecture of CDN points of presence (PoPs).

8 Statistics and Logs

8.1 What Could Fall Into the "Other" Category in the Visitor Region Statistics?

Other refers to those whose region cannot be identified because their IP addresses are not recorded in the IP address library or their IP addresses cannot be obtained by CDN.

8.2 How Long Is the API Delay of the Top 100 URLs in CDN Popular Content Statistics?

Calling the APIs of top 100 URLs has a delay of about 6 hours. This situation returns to normal at 12:00 on the next day.

8.3 What Are the Meanings of HEAD, HIT, and MISS in CDN Logs?

• HEAD

The HEAD method is similar to the GET method. The only difference is that the server does not return a message body for a HEAD request. In a response to a HEAD request, the metadata contained in the HTTP header is the same as that in a response to a GET request. This method can be used to obtain the metadata about an entity without transferring the entity itself. It is also often used to test the validity, availability, and recent changes of hyperlinks.

• HIT

This indicates a cache hit. A point of presence (PoP) directly serves the content.

MISS

This indicates a cache miss. A PoP needs to pull content from the origin server.

8.4 What Does User-Agent OkHttp in CDN Logs Mean?

OkHttp is a request protocol used by the Android network framework to process network requests.

8.5 How Many Days of Data Can Be Queried?

• On the **Analytics** page

You can query CDN data over the past 90 days. The maximum query time range is 31 days.

• On the Logs page You can query and download logs over the past 30 days.

8.6 Why Am I Seeing the Message "Fine-grained Authentication Failed" When I Call an API to Download CDN Logs?

It is possible that the enterprise project is not found. You can add **enterprise_project_id=ALL** to the request path.

Example:

```
GET https://cdn.myhuaweicloud.com/v1.0/cdn/logs?
query_date=1502380500000&domain_name=www.example.com&page_size=10&page_number=1&enterpris
e_project_id=ALL
```

8.7 Why Is There No Data in Analytics?

- The CNAME record configured for your domain name is incorrect.
- CDN statistics on the **Analytics** page are not available in real time. It is updated about 1 hour later.

9 Origin Pull

9.1 In What Scenarios Does CDN Pull Content from an Origin Server?

- 1. CDN points of presence (PoPs) pull content from an origin server when they do not cache requested content.
- 2. CDN PoPs pull content from an origin server when the cached content on CDN PoPs has expired.

9.2 What Do I Fix Origin Pull Failures?

Origin pull failures indicate that CDN points of presence (PoPs) fail to access your origin server or the origin server returns an error. If CDN fails to pull content, CDN will retry once. For details, see **How Is Origin Pull If the Origin Server Has Multiple IP Addresses?**.

Check whether the origin server is normal. For details, see **How Do I Check Whether an Access Fault Is Caused by a CDN PoP or Origin Server?**

9.3 Can CDN Pull Content from Third-Party Private Buckets?

Currently, private object storage buckets of third parties cannot be used as origin servers of CDN.

9.4 How Do I Check Whether Range Requests Are Supported for Origin Pull?

Check the response of the origin server. If the response contains the **Content-Range** field, range requests are supported for origin pull.

For example, **Content-Range: bytes 0-100/2600** indicates that bytes from 0 to 100 are requested and the total data size is 2,600 bytes.

The status code of range requests is 206 instead of 200.

9.5 If a Domain Name Is Attacked, Will Access Requests Be Directed to the Origin Server?

If a domain name is under attack and the attacks affect other CDN users or pose risks to CDN, CDN will ban the domain name, change its status to **Disabled**, and disable the acceleration service for it.

9.6 What Are the Benefits of Configuring a Standby Origin Server?

If the primary origin server fails, CDN can pull content from the standby one to prevent origin pull failures.

9.7 Does CDN Support Direct Origin Pull Through Crawler Access?

No.

CDN cannot distinguish normal user access from crawler access. If the crawler records the IP address of a point of presence (PoP), the crawler can directly access that IP address next time. If the PoP is malfunctioning or undergoing routine maintenance, the crawler will be unable to pull content from that IP address.

9.8 What Is the Difference Between a Host and an Origin Server?

• Origin server

The origin server decides the address to be accessed during origin pull.

• Host

The host decides the site that stores the origin content to be obtained.

9.9 How Is Origin Pull If the Origin Server Has Multiple IP Addresses?

If the origin servers have multiple IP addresses, the following load balancing mechanism is used for origin pull.

• An origin pull request can be forwarded to up to two IP addresses of the origin server with highest priority. If origin pull from both IP addresses fails, the request is forwarded to an origin server with a lower priority. The request can be forwarded to up to two IP addresses of the second origin server. If origin pull fails again, the request fails.

• Origin pull fails when the connection times out, the connection fails, or a 5*xx* error code is returned from the origin server.

9.10 Why Are Incorrect Resources Being Pulled?

The configuration for host may be incorrect. By default, the host is your acceleration domain name. If your acceleration domain name is not the one that you want CDN points of presence (PoPs) to pull content from, change the host to the origin domain. For details, see **Host Header**.

9.11 How Do I View Origin Pull Records?

CDN does not have origin pull logs. You can use the following methods to view origin pull records:

- Check the request logs of your origin server.
- Check whether the CDN logs contain the **MISS** field. If yes, there are origin pull records.

You are advised to prefetch the cache before checking the origin pull traffic.

9.12 Will CDN Download All Files If I Send a Status Code 206 to Request 100-Byte Content?

No.

The status code 206 indicates CDN pulls the requested portion from the origin server.

If you constantly request remaining portions, all files will be fetched from the origin server.

10_{Quota}

10.1 What Is Quota?

Quotas are enforced for service resources on the platform to prevent unforeseen spikes in resource usage. Quotas limit the number or amount of resources available to users. **Table 10-1** describes the restrictions on the number of acceleration domain names, number of URLs for cache purge, number of directories for cache purge, and number of URLs for cache prefetch.

Туре	Description	Total Quota
Number of domain names	Maximum number of acceleration domain names that can be added by an account	100
Number of URLs for cache purge per day	Maximum number of URLs that can be refreshed by an account each day	2,000
Number of directories for cache purge per day	Maximum number of directories that can be refreshed by an account each day	100
Number of URLs for cache prefetch per day	Maximum number of URLs that can be prefetched by an account each day	1,000

Table 10-1 Quota list

If an existing resource quota cannot meet your service requirements, submit a service ticket to increase the quota.

10.2 How Do I View My Quota?

- Log in to Huawei Cloud console. Choose Service List > Content Delivery & Edge Computing > Content Delivery Network. The CDN console is displayed.
- In the upper right corner of the page, choose Resources > My Quotas. The Service Quota page is displayed.
- 3. View the used and total quota of each type of CDN resources on the displayed page.

If a quota cannot meet your service requirements, click **Increase Quota** to adjust it.

A Change History

Released On	Description	
2023-10-10	 This issue is the thirty-first official release. Added an FAQ Why Is the Cache Hit Ratio of a Domain Name with Whole Site Acceleration Greater Than 0? 	
2023-08-30	 This issue is the thirtieth official release. Added an FAQ How Do I Do If a Domain Name Fails to Be Added? 	
2023-08-08	 This issue is the twenty-ninth official release. Changed the origin pull mechanism from polling to load balancing. For details, see How Is Origin Pull If the Origin Server Has Multiple IP Addresses? 	
2023-06-20	This issue is the twenty-eighth official release.Adjusted the architecture and combined some FAQs.	
2023-03-15	 This issue is the twenty-seventh official release. Added the FAQ "Why Is 304 Returned When a User Accesses a Resource Under My Acceleration Domain Name?" 	
2022-11-29	 This issue is the twenty-sixth official release. Removed the description of expenditure quota alert because this function was removed from the Billing Center. 	
2021-12-17	This issue is the twenty-sixth official release.Added questions and answers in section "Usage."	

Released On	Description	
2021-09-06	 This issue is the twenty-fifth official release. This release incorporates the following changes: Added function FAQ. Added cache configuration FAQ. Added questions and answers in section "Cache Refreshing and Preheating." 	
2021-05-13	This issue is the twenty-fourth official release.This release incorporates the following change:Adjusted the document structure and FAQ categories.	
2020-12-23	 This issue is the twenty-third official release. This issue incorporates the following changes: Incorporated and deleted certain product-related questions and answers. Incorporated and deleted certain domain-related questions and answers. Incorporated and deleted certain billing-related questions and answers. Incorporated and deleted certain troubleshooting-related questions and answers. 	
2020-11-12	 This issue is the twenty-second official release. This issue incorporates the following changes: Added questions and answers in section "Product." Added questions and answers in section "Billing." Added questions and answers in section "Domain Name." Modified some answers. 	
220-10-21	 This issue is the twenty-first official release. This issue incorporates the following changes: Added questions and answers in section "Product." Added questions and answers in section "Domain Name." Added questions and answers in section "Cache." Added questions and answers in section "Security." 	

Released On	Description	
2020-04-10	This issue is the twentieth official release.	
	This release incorporates the following changes:	
	Added questions and answers in section "Product."	
	Added questions and answers in section "Purchase."	
	 Added questions and answers in section "Domain Name." 	
	 Added questions and answers in section "Acceleration." 	
	 Added questions and answers in section "Cache Refreshing and Preheating." 	
	Added questions and answers in section "Statistics."	
	Added questions and answers in section "Security."	
	Added questions and answers in section "Billing."	
	 Added questions and answers in section "Troubleshooting." 	
2019-10-29	This issue is the nineteenth official release.	
	This release incorporates the following changes:	
	Added questions and answers in section "Product."	
	Added questions and answers in section "Purchase."	
	 Added questions and answers in section "Domain Name." 	
	 Added questions and answers in section "Cache Refreshing and Preheating." 	
	Added questions and answers in section "Security."	
	Added questions and answers in section "Billing."	
	 Added questions and answers in section "Troubleshooting." 	
2019-09-25	This issue is the eighteenth official release.	
	This release incorporates the following changes:	
	Added questions and answers in section "Product."	
	 Added questions and answers in section "Acceleration." 	

Released On	Description
2019-05-08	This issue is the seventeenth official release.
	The modification is as follows:
	Added the "Security" section.
	Added questions and answers in section "Domain Name."
	 Added questions and answers in section "Acceleration."
	Added questions and answers in section "Retrieval."
	Added questions and answers in section "Billing."
	Added questions and answers in section "Troubleshooting."
2019-03-14	This issue is the ninth official release.
	The modification is as follows:
	Added questions and answers in section "Billing."
2019-02-28	This issue is the eighth official release.
	The modification is as follows:
	Added questions and answers in section "Purchase."
	Added questions and answers in section "Domain Name."
	Added questions and answers in section "Statistics."
2019-02-14	This issue is the seventh official release.
	The modification is as follows:
	Added questions and answers related to quota.
2019-01-28	This issue is the sixth official release.
	The modification is as follows:
	Added questions and answers in section "Cache."
2018-12-28	This issue is the fifth official release.
	The modification is as follows:
	 Added questions and answers in section "Acceleration."
	Added questions and answers in section "Retrieval."
	Added questions and answers in section "Cache."
	Added questions and answers in section "Cache Refreshing and Preheating."
	Added questions and answers in section "Billing."
	Optimized questions and answers in section "Statistics."

Released On	Description
2018-10-30	 This issue is the fourth official release. The modification is as follows: Added questions and answers in section "Retrieval." Added questions and answers in section "Billing."
2018-09-21	 This issue is the third official release. The modification is as follows: Added questions and answers in section "Domain Name." Added questions and answers in section "Product." Added questions and answers in section "Billing." Added questions and answers in section "Purchase."
2018-05-21	 This issue is the second official release. The modification is as follows: Added questions and answers in section "Acceleration." Added questions and answers in section "Retrieval."
2018-05-05	This issue is the first official release.