

CDN

Hands-On Tutorials

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1 Getting to Know CDN

This section gives a brief introduction about CDN.

What Is CDN?

Content Delivery Network (CDN) is a smart virtual network on the Internet infrastructure. CDN caches origin content on points of presence (PoPs) closer to users, so content can load faster. CDN speeds up site response and improves site availability, breaking through the bottlenecks caused by low bandwidth, heavy user access traffic, and uneven distribution of PoPs.

Huawei Cloud CDN has over 2,000 PoPs in the Chinese mainland and over 800 PoPs outside the Chinese mainland. The network-wide bandwidth reaches 180 Tbit/s. The PoPs are connected to the networks of top carriers in China such as China Telecom, China Unicom, China Mobile, and China Education and Research Network (CERNET), as well as many small- and medium-sized carriers. Up to now, Huawei Cloud CDN covers more than 130 countries and regions, connecting to over 1,600 carrier networks. CDN precisely schedules user requests to the most appropriate PoPs, providing efficient and reliable acceleration.

Huawei Cloud CDN can be used for:

Scenario	Description
Website acceleration	CDN is perfect for web portals, e-commerce platforms, news apps, and user generated content (UGC)-focused apps. It provides excellent acceleration for static content associated with acceleration domain names. In addition, it supports custom cache policies. You can set the cache time to live (TTL) as needed. The files that can be cached include but are not limited to .zip , .exe , .wmv , .gif , .png , .bmp , .wma , .rar , .jpeg , and .jpg .

Scenario	Description
Download acceleration	CDN is useful for download clients, game clients, app stores, and websites that provide download services based on HTTP or HTTPS. An increasing number of new services need to update software in real time. Conventional download services need to provide even more and larger downloads. If origin servers have to handle all these requests, it places tremendous strain on these servers and results in bottlenecks. CDN can distribute content to PoPs, ease the pressure on origin servers, and speed up downloads.
On-demand service acceleration	If you provide on-demand audiovisual services, CDN is a must. On-demand services include online education, video sharing, music or video on demand, and other audiovisual content. Conventional on-demand audiovisual content puts significant load on the servers and consumes great bandwidth. When this happens, user experience is compromised for low-speed services. CDN ensures fast, reliable, secure acceleration for such services by delivering content to all CDN PoPs. Users are then able to obtain that content from nearby PoPs anywhere and anytime.
Whole site acceleration	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. Whole site acceleration accelerates both dynamic and static content. Static content can be served from nearby PoPs, whereas dynamic content is pulled from the origin server through the fastest possible route. As such, dynamic pages can be loaded more quickly by bypassing congested routes.

Huawei Cloud CDN Billing

You can choose to be billed by traffic or bandwidth. For details, see [Price Calculator](#).

1. By Traffic

If you choose traffic-based billing:

- You can be billed by the traffic used per hour.
- You can buy a pre-paid CDN traffic package to get more savings. Fee of CDN traffic generated when users request content will be deducted from the traffic package.

2. By Bandwidth

Billing by bandwidth has three options: by peak bandwidth, by 95th percentile bandwidth, and by daily average peak bandwidth.

NOTE

Billing by 95th percentile bandwidth and by daily average peak bandwidth are only available for customers who have a budget of more than \$15,000 USD for CDN each month. If you are this type of customers, [submit a service ticket](#) or contact customer service to apply for it.

2 Getting Started with CDN

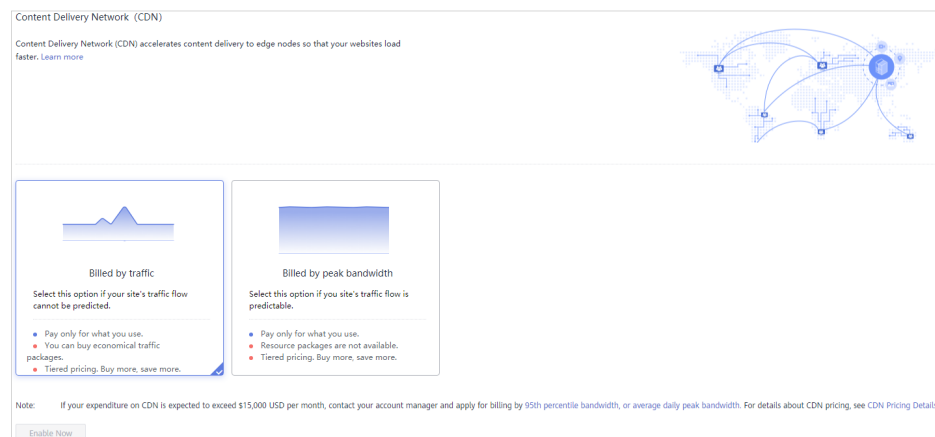
By following the procedure in this section, you can quickly get started with Huawei Cloud CDN to accelerate your business. This section describes how to enable CDN, add a domain name, and configure CNAME.

Step 1: Enable CDN

1. Log in to [Huawei Cloud console](#). Choose **Service List > Content Delivery & Edge Computing > Content Delivery Network**.

The CDN console is displayed.

2. Enable CDN as prompted and choose to be billed by traffic or peak bandwidth.



3. Log in to the CDN console again.

Step 2: Add a Domain Name

1. Log in to [Huawei Cloud console](#). Choose **Service List > Content Delivery & Edge Computing > Content Delivery Network**.

The CDN console is displayed.

2. In the navigation pane, choose **Domains**.
3. On the **Domains** page, click **Add Domain Name** and configure a domain name, service area, service type, and origin server address.

 NOTE

For details about each configuration item, see [Adding a Domain Name](#).

4. Click **OK**.
5. **Test your domain name** before configuring a CNAME record to ensure that domain configurations are correct.

Step 3: Configure the CNAME Record

After a domain name is added, Huawei Cloud CDN assigns a CNAME address to you. You need to point the domain name to the CNAME address so that requests destined for the domain name can be redirected to CDN PoPs for acceleration.

download.game-apk1.com is used as an example. This domain name is resolved on Huawei Cloud.

1. Obtain the CNAME record of the domain name.
 - a. Log in to the CDN console. In the navigation pane, choose **Domains**.
 - b. On the **Domains** page, copy the CNAME record **download.game-apk1.com.c.cdnhwc1.com**.
2. Add the CNAME record.
 - a. Log in to [Huawei Cloud console](#). Choose **Service List > Networking > Domain Name Service**.
The DNS console is displayed.
 - b. In the navigation pane, choose **Public Zones**.
The public zone list is displayed.
 - c. Click the domain name you want to add a record set to. In this example, the domain name is **game-apk1.com**.
 - d. Click **game-apk1.com**. On the displayed page, click **Add Record Set** in the upper right corner. The **Add Record Set** dialog box is displayed.

Add Record Set

Name: .game-apk1.com

* Type:

* Line:

* TTL (s):

* Value:

Weight:

More Settings:

- e. Configure the parameters as instructed. [Table 2-1](#) describes the parameters. Retain the default values for the parameters that are not listed in the table.

Table 2-1 Parameter description

Parameter	Description	Example
Name	Domain name prefix	download
Type	Type of the record set, which should be CNAME-Canonical name here	CNAME – Map one domain to another
Line	Used when the DNS server is resolving a domain name. It returns the IP address of the server according to the visitor source. You must add a Default line to ensure that the website is accessible to users of all carriers.	Default
TTL (s)	Cache duration of the record set on a local DNS server. If your service address changes frequently, set TTL to a smaller value.	The default value is 300 seconds, which is, 5 minutes.

Parameter	Description	Example
Value	Domain name alias If CDN acceleration is not enabled, the value is the bucket domain name. If CDN acceleration is enabled, the value of this parameter is the CNAME record allocated by CDN.	download.game-apk1.com.cdnhwc1.com

- f. Click **OK**.
- 3. Verify that the CNAME record has taken effect.
Open the Windows command line interface and run the following command:
`nslookup -qt=cname Acceleration domain name`

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

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\>nslookup -qt=cname hwmov.a.yximgs.com
Server: .com
Address:

Non-authoritative answer:
.com canonical name = .com c.dnhwc1.com
```

3 Basic CDN Functions

After you have enabled CDN for your domain name, you can configure specific functions on the console or by calling APIs based on your needs.

This section describes the GUI, functions, and operations on the CDN console.

CDN Console

The following figure shows the **Dashboard** page of the CDN console.

Figure 3-1 Dashboard

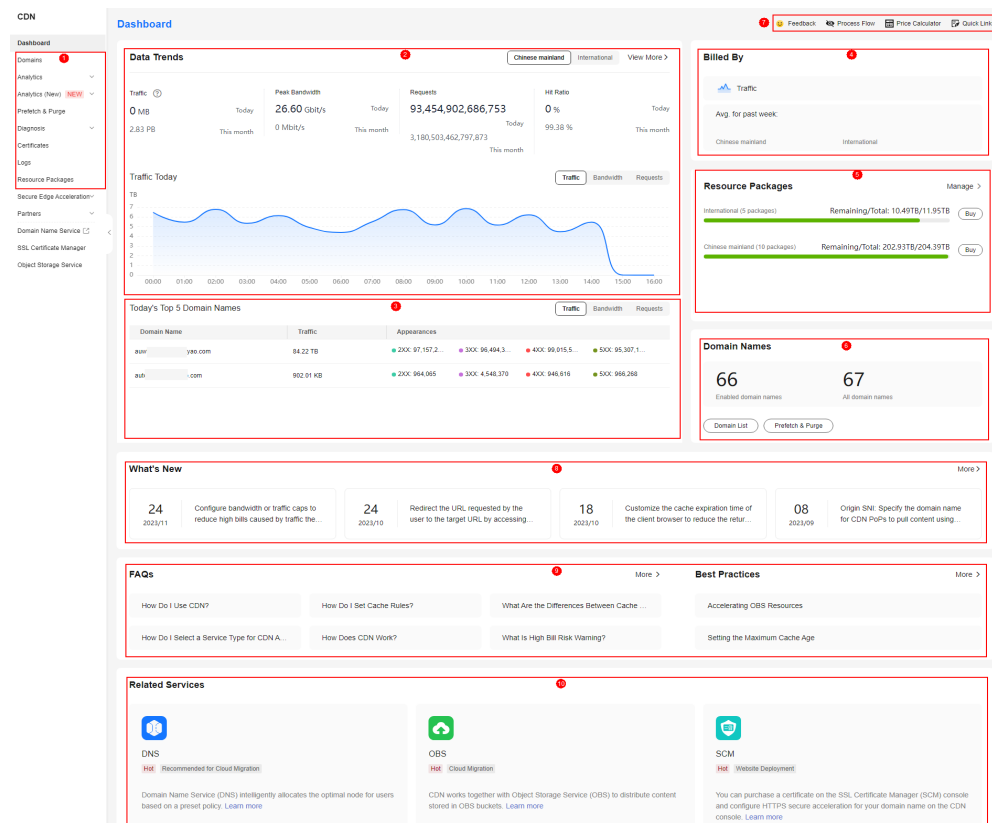


Table 3-1 Description

No.	Description
1	Navigation pane: displays all functions you can configure.
2	Data Trends: displays the usage of CDN resources.
3	Today's Top 5 Domain Names: displays the top 5 domain names with the highest usage.
4	Billed By: displays the billing option and the average resource consumption in seven days.
5	Resource Packages: displays the resource packages under the account.
6	Domain Names: displays the number of acceleration domain names under the account.
7	Price calculator and quick links: display entries to feedback, CDN price details, and documentation.
8	What's New: displays details about the latest functions.
9	FAQs and Best Practices: display frequently asked questions and best practices of CDN.
10	Related Services: displays information about other related Huawei Cloud products.

Console Function Overview

Huawei Cloud CDN provides diverse functions that you may use to manage your CDN resources. See the following table for more details.

If You Want To	Reference
Manage domain names.	Enabling/Disabling CDN for a Domain Name, Removing a Domain Name , or Copying Domain Configurations
Handle domain names that go offline due to violations.	Reviewing a Domain Name
Modify domain name details.	Origin Server Settings , Service Area , or IPv6
Modify origin settings.	Host Header , Range Requests , Redirect from Origin , OBS Authorization , Origin Request Headers , Origin URL Rewriting , or Origin Response Timeout
Configure HTTPS secure acceleration.	HTTPS Certificates , OCSP Stapling , Force Redirect , HTTP/2 , or TLS Versions

If You Want To	Reference
Configure CDN cache rules to reduce the origin pull ratio.	Cache Settings , URL Parameter Filtering , Origin Cache Control , Smart Compression , or Status Code Cache TTL
Identify and filter visitors.	Referer Validation , IP ACL , Token Authentication , or User-Agent ACL
Configure advanced domain name settings.	HTTP Header Settings or Custom Error Pages
Enable CDN PoPs to obtain the most current content from the origin server.	Cache Purge or Cache Prefetch
Query and monitor CDN usage statistics on the console.	Analytics
Quickly identify and locate problems by analyzing logs.	Log Management or Auditing
Verify whether an IP address belongs to a Huawei Cloud CDN PoP.	Checking PoP IP Addresses
Configure CDN and OBS together.	Accelerating OBS Resources
Create an enterprise project.	Creating an Enterprise Project and Authorizing User Groups