

CDN

# Hands-On Tutorials

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# Contents

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<b>1 Getting to Know CDN.....</b>	<b>1</b>
<b>2 Getting Started with CDN.....</b>	<b>3</b>
<b>3 Basic CDN Functions.....</b>	<b>7</b>

# 1 Getting to Know CDN

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This section gives a brief introduction about CDN.

## What Is CDN?

Content Delivery Network (CDN) is an intelligent virtual network built on top of existing Internet infrastructure. Using CDN, origin content can be cached on nodes 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 edge nodes.

HUAWEI CLOUD CDN has over 2000 edge nodes in the Chinese mainland and over 800 edge nodes outside the Chinese mainland. The network-wide bandwidth is at least 150 Tbit/s. The edge nodes 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 1600 carrier networks. CDN precisely schedules user requests to the most appropriate edge nodes, providing efficient and reliable acceleration.

HUAWEI CLOUD CDN can be used for:

Scenario	Description
<b>Website acceleration</b>	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. Users can set the maximum cache age as needed. The files that can be cached include but are not limited to <b>.zip, .exe, .wmv, .gif, .png, .bmp, .wma, .rar, .jpeg, and .jpg.</b>

Scenario	Description
<b>Download acceleration</b>	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, such as apps and mobile games, require software updates in real time. Conventional download services need to provide even more and larger downloads. If origin servers have to handle all of these requests directly, it places tremendous strain on these servers and results in a significant bottleneck. With CDN download acceleration, content to be downloaded is distributed to edge nodes, easing the pressure on origin servers and ensuring high-speed downloads.
<b>On-demand service acceleration</b>	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 an enormous amount of 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 nodes. Users are then able to obtain that content from nearby nodes anywhere and anytime.
<b>Whole site acceleration</b>	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 nodes, whereas dynamic content is retrieved 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 [Pricing Details](#).

### 1. By Traffic

If you choose traffic-based billing:

- You can be billed by the traffic used per hour.
- You can buy a CDN traffic package, which is more economical.

### 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 ¥100,000 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

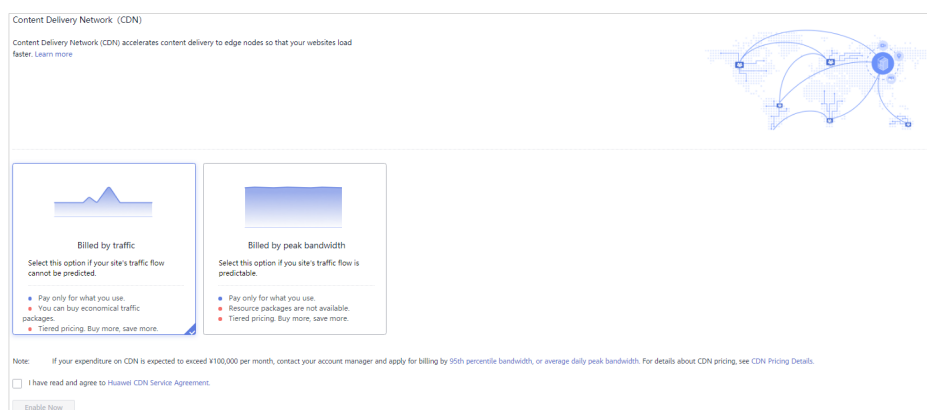
By following the procedure in this section, you can quickly get started with HUAWEI CLOUD CDN to accelerate your business. This section describes how to enable CDN, add a domain name, and configure CNAME.

## Step 1: Enable CDN

1. Log in to the [HUAWEI CLOUD console](#). On the homepage of the management console, choose **Service List > Content Delivery & Edge Computing > CDN**.

The CDN console is displayed.

2. Choose to be billed by traffic or peak bandwidth and enable CDN as prompted.



3. Log in to the CDN console again.

## Step 2: Add a Domain Name

1. Log in to the [HUAWEI CLOUD console](#). On the homepage of the management console, choose **Service List > Content Delivery & Edge Computing > CDN**.

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](#).

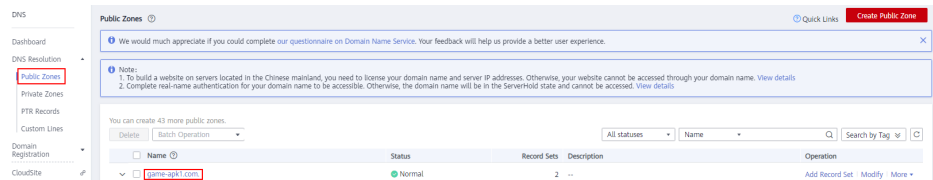
4. Click **OK**.
5. **Test your domain name** before configuring a CNAME record to ensure that domain configurations are correct.

### 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 nodes 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.cdnhwc1.com**.
2. Add the CNAME record.
  - a. Log in to the [HUAWEI CLOUD console](#). On the homepage of the management console, choose **Service List > Networking > Domain Name Service**. The DNS console is displayed.
  - b. In the navigation pane, choose **DNS Resolution > 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**. See the following figure.



- 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. See the following figure.

✕

### Add Record Set

Name  .game-apk1.com. ?

\* Type  ▾

\* Alias ?  Yes  No

\* 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 <b>CNAME-Canonical name</b> here	CNAME – Map one domain to another
Alias	Whether the record set will be associated with a cloud resource	No
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 <b>Default</b> line to ensure that the website is accessible to users of all carriers.	Default

Parameter	Description	Example
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 <b>300</b> , which is, 5 minutes.
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. A typical command output is shown in the following figure.

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

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

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

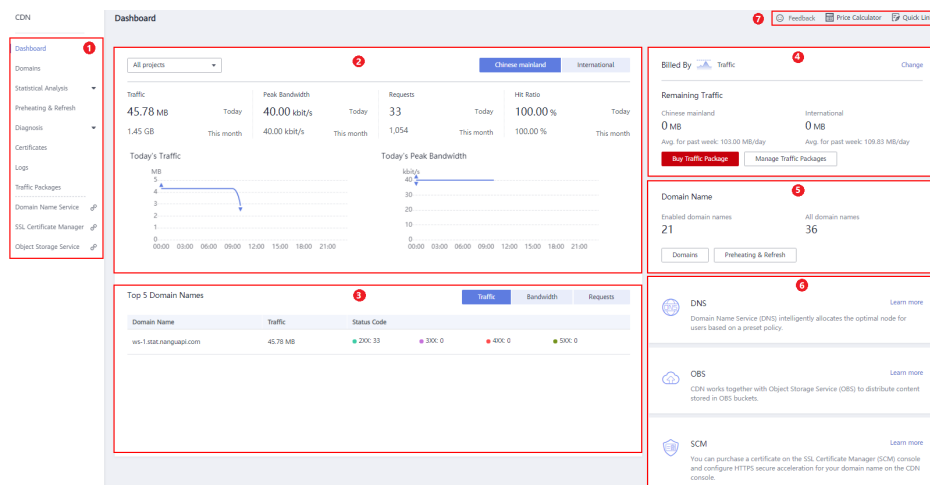
# 3 Basic CDN Functions

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 CDN console.



No.	Description
1	Navigation pane: displays all functions you can configure.
2	Resource usage: displays the usage of CDN resources.
3	Top 5 Domain Names: displays the top 5 domain names with the highest usage.
4	Billing option: displays the current billing option.
5	Account resources: displays the number of enabled and all domain names.

No.	Description
6	Recommendations: displays information about other related HUAWEI CLOUD products.
7	Price Calculator and Quick Links: displays entries to feedback, CDN price details, and documentations.

## 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.	<a href="#">Enabling/Disabling a Domain Name</a> , <a href="#">Removing a Domain Name</a> , or <a href="#">Copying Domain Configurations</a>
Handle domain names that go offline due to violations.	<a href="#">Reviewing a Domain Name</a> or <a href="#">Service Termination Policy</a>
Modify domain name details.	<a href="#">Modifying Origin Server Details</a> , <a href="#">Changing the Service Area</a> , or <a href="#">Configuring IPv6</a>
Modify origin settings.	<a href="#">Retrieval Host</a> , <a href="#">Range-based Retrieval</a> , <a href="#">Redirect Retrieval</a> , <a href="#">OBS Private Bucket Retrieval</a> , <a href="#">Retrieval Request Headers</a> , <a href="#">Rewriting Retrieval Request URLs</a> , or <a href="#">Retrieval Timeout Interval</a>
Configure HTTPS secure acceleration.	<a href="#">HTTPS Certificates</a> , <a href="#">OCSP Stapling</a> , <a href="#">Force Redirect</a> , <a href="#">HTTP/2</a> , or <a href="#">TLS Versions</a>
Configure CDN cache rules to reduce the retrieval ratio.	<a href="#">Cache Settings</a> , <a href="#">URL Parameter Filtering</a> , <a href="#">Origin Cache Control</a> , <a href="#">Smart Compression</a> , or <a href="#">Status Code Cache Age</a>
Identify and filter visitors.	<a href="#">Configuring Referrer Validation</a> , <a href="#">Configuring an ACL</a> , <a href="#">Configuring URL Authentication</a> , or <a href="#">Configuring a User-Agent Blacklist or Whitelist</a>
Configure advanced domain name settings.	<a href="#">HTTP Header Settings</a> or <a href="#">Custom Error Pages</a>
Enable CDN nodes to obtain the most current content from the origin server.	<a href="#">Cache Refreshing</a> or <a href="#">Cache Preheating</a>
Query and monitor CDN usage statistics on the console.	<a href="#">Statistical Analysis</a>

If You Want To	Reference
Quickly identify and locate problems by analyzing logs.	<a href="#">Log Management</a> and <a href="#">Auditing</a>
Verify whether an IP address belongs to a HUAWEI CLOUD CDN node.	<a href="#">Checking Node IP Addresses</a>
Configure CDN and OBS together.	<a href="#">Accelerating File Downloads from OBS</a>
Create an enterprise project.	<a href="#">Creating and Authorizing a CDN Enterprise Project</a>