

**Cloud Bastion Host**

# **API Reference**

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# 1 Before You Start

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## 1.1 Overview

Cloud Bastion Host (CBH) is a unified security management and control platform. It provides account, authorization, authentication, and audit management services.

## 1.2 API Calling

CBH supports Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS. For more information, see [Calling APIs](#).

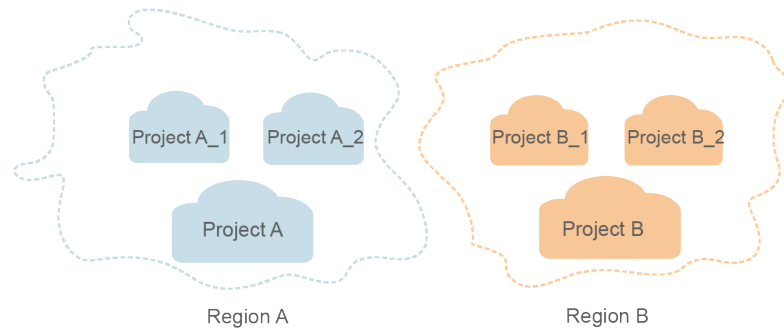
## 1.3 Endpoints

## 1.4 Basic Concepts

- **Region**  
Regions are divided based on geographical location and network latency. Public services, such as Elastic Cloud Server (ECS), Elastic Volume Service (EVS), Object Storage Service (OBS), Virtual Private Cloud (VPC), Elastic IP (EIP), and Image Management Service (IMS), are shared within the same region. Regions are classified as universal regions and dedicated regions. A universal region provides universal cloud services for common users. A dedicated region provides services of the same type only or for specific users.
- **Availability Zone (AZ)**  
An AZ comprises one or multiple physical data centers equipped with independent ventilation, fire, water, and electricity facilities. Compute, network, storage, and other resources in an AZ are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to allow you to build highly available systems across AZs.
- **Project**  
Projects group and isolate compute, storage, and network resources across physical regions. A default project is provided for each region, and subprojects

can be created under each default project. Users can be granted permissions to access all resources in a specific project. For more refined access control, create subprojects under a project and create resources in the subprojects. Users can then be assigned permissions to access only specific resources in the subprojects.

**Figure 1-1** Project isolation model



## 1.5 Selecting an API Type

CBH provides V1 APIs.

# 2 Calling APIs

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## 2.1 Making an API Request

This section describes the structure of a REST API request, and uses the IAM API for obtaining a user token as an example to demonstrate how to call an API. The obtained token can then be used to authenticate the calling of other APIs.

### Request URI

A request URI is in the following format:

**{URI-scheme} :// {Endpoint} / {resource-path} ? {query-string}**

Although a request URI is included in the request header, most programming languages or frameworks require the request URI to be transmitted separately.

- **URI-scheme:**  
Protocol used to transmit requests. All APIs use HTTPS.
- **Endpoint:**  
Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from the administrator.
- **resource-path:**  
Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the **resource-path** of the API used to obtain a user token is **/v3/auth/tokens**.
- **query-string:**  
Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of "Parameter name=Parameter value". For example, **?limit=10** indicates that a maximum of 10 data records will be displayed.

#### NOTE

To simplify the URI display in this document, each API is provided only with a **resource-path** and a request method. The **URI-scheme** of all APIs is **HTTPS**, and the endpoints of all APIs in the same region are identical.

## Request Methods

The HTTP protocol defines the following request methods that can be used to send a request to the server:

- **GET**: requests the server to return specified resources.
- **PUT**: requests the server to update specified resources.
- **POST**: requests the server to add resources or perform special operations.
- **DELETE**: requests the server to delete specified resources, for example, an object.
- **HEAD**: same as GET except that the server must return only the response header.
- **PATCH**: requests the server to update partial content of a specified resource. If the resource does not exist, a new resource will be created.

For example, in the case of the API used to obtain a user token, the request method is POST. The request is as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens
```

## Request Header

You can also add additional header fields to a request, such as the fields required by a specified URI or HTTP method. For example, to request for the authentication information, add **Content-Type**, which specifies the request body type.

Common request header fields are as follows:

- **Content-Type**: specifies the request body type or format. This field is mandatory and its default value is **application/json**. Other values of this field will be provided for specific APIs if any.
- **X-Auth-Token**: specifies a user token only for token-based API authentication. The user token is a response to the API used to obtain a user token. This API is the only one that does not require authentication.

### NOTE

In addition to supporting token-based authentication, APIs also support authentication using access key ID/secret access key (AK/SK). During AK/SK-based authentication, an SDK is used to sign the request, and the **Authorization** (signature information) and **X-Sdk-Date** (time when the request is sent) header fields are automatically added to the request.

For more information, see [AK/SK-based Authentication](#).

The API used to obtain a user token does not require authentication. Therefore, only the **Content-Type** field needs to be added to requests for calling the API. An example of such requests is as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

## Request Body

The body of a request is often sent in a structured format as specified in the **Content-Type** header field. The request body transfers content except the request header.



The request body varies between APIs. Some APIs do not require the request body, such as the APIs requested using the GET and DELETE methods.

In the case of the API used to obtain a user token, the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Set **username** to the name of a user, **domainname** to the name of the account that the user belongs to, **\*\*\*\*\*** to the user's login password, and **xxxxxxxxxxxxxxxxxxxx** to the project name. You can learn more information about projects from the administrator.

 **NOTE**

The **scope** parameter specifies where a token takes effect. You can set **scope** to an account or a project under an account. In the following example, the token takes effect only for the resources in a specified project. For more information about this API, see "Obtaining a User Token".

POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens  
Content-Type: application/json

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "*****",
          "domain": {
            "name": "domainname"
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxxxxxxxxxxxxxxx"
      }
    }
  }
}
```

If all data required for the API request is available, you can send the request to call the API through [curl](#), [Postman](#), or coding. In the response to the API used to obtain a user token, **x-subject-token** is the desired user token. This token can then be used to authenticate the calling of other APIs.

## 2.2 Authentication

Requests for calling an API can be authenticated using either of the following methods:

- Token-based authentication: Requests are authenticated using a token.
- AK/SK-based authentication: Requests are authenticated by encrypting the request body using an AK/SK pair. This method is recommended because it provides higher security than token-based authentication.

## Token-based Authentication

### NOTE

The validity period of a token is 24 hours. When using a token for authentication, cache it to prevent frequently calling the IAM API used to obtain a user token.

A token specifies temporary permissions in a computer system. During API authentication using a token, the token is added to requests to get permissions for calling the API.

The token can be obtained by calling the required API. For more information, see Obtaining a User Token. A project-level token is required for calling this API, that is, **auth.scope** must be set to **project** in the request body. Example:

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "*****#",
          "domain": {
            "name": "domainname"
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxx"
      }
    }
  }
}
```

After a token is obtained, the **X-Auth-Token** header field must be added to requests to specify the token when calling other APIs. For example, if the token is **ABCDEFJ....**, **X-Auth-Token: ABCDEFJ....** can be added to a request as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

## AK/SK-based Authentication

### NOTE

AK/SK-based authentication supports API requests with a body not larger than 12 MB. For API requests with a larger body, token-based authentication is recommended.

In AK/SK-based authentication, AK/SK is used to sign requests and the signature is then added to the requests for authentication.

- AK: access key ID, which is a unique identifier used in conjunction with a secret access key to sign requests cryptographically.
- SK: secret access key used in conjunction with an AK to sign requests cryptographically. It identifies a request sender and prevents the request from being modified.

In AK/SK-based authentication, you can use an AK/SK to sign requests based on the signature algorithm or use the signing SDK to sign requests.

### NOTICE

The signing SDK is only used for signing requests and is different from the SDKs provided by services.

## 2.3 Response

### Status Codes

After sending a request, you will receive a response containing the status code, response header, and response body.

A status code is a group of numbers ranging from 1xx to 5xx. It indicates the status of a response. For more information, see [Status Code](#).

For example, if status code **201** is returned for calling the API used to , the request is successful.

### Response Header

A response header corresponds to a request header, for example, **Content-Type**.

**Figure 2-1** shows the response header for the API of , in which **x-subject-token** is the desired user token. Then, you can use the token to authenticate the calling of other APIs.

**Figure 2-1** Header of the response to the request for obtaining a user token

```
connection → keep-alive
content-type → application/json
date → Tue, 12 Feb 2019 06:52:13 GMT
server → Web Server
strict-transport-security → max-age=31536000; includeSubdomains;
transfer-encoding → chunked
via → proxy A
x-content-type-options → nosniff
x-download-options → noopen
x-frame-options → SAMEORIGIN
x-iam-trace-id → 218d45ab-d674-4995-af3a-2d0255ba41b5
x-subject-token → MIiYXQYJKoZIhvcNAQcCoIIYjCCGEOCAQExDTALBglghkgBZQMEAgEwgharBgkqhkiG9w00BwGgghacBIIWmHsidG9rZW4iOansiZXhwaXJlc19hdCI6IjIwMTk0MTU0MUMCfj3KJs6YgKnpVNRbW2eZ5eb78SZOkqjACgkqlqO1wi4JIGzrpd18LGXK5bdfq4lqHCYb8P4NaYONYejeAgzJVeFYtLWT1GSO0zxKZmlQHqj82HBqHdglZO9fuEebL5dMhdavj+33wElxHRCe9I87o+k9-j+CMZSEB7bUGd5Uj6eRASXl1jipPEGA270g1FruooL6jqglFkNPQuFSOU8+uSsttVwrRtnfsC+qTp22Rkd5MCqFGQ8LcuUxC3a+9CMBnOintWW7oeRUUVhVpxk8pxiX1wTEBoX-RzT6MUUbpvGw-oPNFYxjECKnoH3Hrozv0vN--n5d6Nbxg==
x-xss-protection → 1; mode=block;
```

## (Optional) Response Body

A response body is generally returned in a structured format, corresponding to the **Content-Type** in the response header, and is used to transfer content other than the response header.

The following shows part of the response body for the API to . For the sake of space, only part of the content is displayed here.

```
{
  "token": {
    "expires_at": "2019-02-13T06:52:13.855000Z",
    "methods": [
      "password"
    ],
    "catalog": [
      {
        "endpoints": [
          {
            "region_id": "xxxxxxx",
            .....

```

If an error occurs during API calling, the system returns an error code and a message to you. The following shows the format of an error response body:

```
{
  "error": {
    "message": "The request you have made requires authentication.",
    "title": "Unauthorized"
  }
}
```

In the preceding information, **error\_code** is an error code, and **error\_msg** describes the error.

# 3 API Description

## 3.1 Managing CBH Instances

### 3.1.1 Stopping a CBH Instance

#### Function

This API is used to stop a CBH instance.

#### URI

POST /v1/{project\_id}/cbs/instance/stop

**Table 3-1** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .

#### Request Parameters

**Table 3-2** Request body parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	CBH instance ID, in the UUID format.

## Response Parameters

### Status code: 400

**Table 3-3** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

### Status code: 401

**Table 3-4** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

### Status code: 403

**Table 3-5** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

### Status code: 404

**Table 3-6** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	CBH instances not found.

## Example Requests

```
{
  "instance_id" : "c7277d87-5a0d-4cfc-a418-97acb567cf29"
}
```

## Example Responses

None

## Status Codes

Status Code	Description
200	request info:"success"
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

## 3.1.2 Upgrading a CBH Instance

### Function

This API is used to upgrade a CBH instance.

### URI

POST /v1/{project\_id}/cbs/instance/upgrade

**Table 3-7** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .

## Request Parameters

**Table 3-8** Request body parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	CBH instance ID, in the UUID format.

## Response Parameters

**Status code: 200**

**Table 3-9** Response body parameters

Parameter	Type	Description
code	Integer	Operation results
description	String	Description.
task_id	String	Task ID.
order_id	String	Order ID.

**Status code: 400**

**Table 3-10** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

**Status code: 401**

**Table 3-11** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

**Status code: 403**



**Table 3-12** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

**Status code: 404**

**Table 3-13** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	CBH instances not found.

## Example Requests

```
{
  "instance_id" : "6e22aced-2fdb-42e9-9175-4796f9fc23"
}
```

## Example Responses

**Status code: 200**

request info:"success"

```
{
  "code" : 1,
  "description" : "You are using the latest version, no need to upgrade. The agent is not started."
}
```

## Status Codes

Status Code	Description
200	request info:"success"
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

### 3.1.3 Restarting a CBH Instance

#### Function

This API is used to restart a CBH instance.

#### URI

POST /v1/{project\_id}/cbs/instance/reboot

**Table 3-14** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .

#### Request Parameters

**Table 3-15** Request body parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	CBH instance ID, in the UUID format.
reboot	Yes	<a href="#">RebootType</a> object	CBH instance restart method.

**Table 3-16** RebootType

Parameter	Mandatory	Type	Description
type	Yes	String	The value is case-insensitive. - <b>SOFT</b> : General restart. Services on VMs are closed. - <b>HARD</b> : Forcible restart. VMs are restarted.

## Response Parameters

### Status code: 400

**Table 3-17** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

### Status code: 401

**Table 3-18** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

### Status code: 403

**Table 3-19** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

### Status code: 404

**Table 3-20** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	CBH instances not found.

## Example Requests

```
{
  "instance_id" : "c7277d87-5a0d-4cfc-a418-97acb567cf29",
  "reboot" : {
    "type" : "SOFT"
  }
}
```

## Example Responses

None

## Status Codes

Status Code	Description
200	request info:"success"
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

## 3.1.4 Binding an EIP to a CBH Instance

### Function

This API is used to bind an EIP to a CBH instance.

### URI

POST /v1/{project\_id}/cbs/instance/{server\_id}/eip/bind

**Table 3-21** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .

Parameter	Mandatory	Type	Description
server_id	Yes	String	CBH instance ID, in the UUID format.

## Request Parameters

**Table 3-22** Request body parameters

Parameter	Mandatory	Type	Description
publicip_id	Yes	String	EIP ID, in the UUID format.
public_eip	Yes	String	EIP, in the IP address format.

## Response Parameters

**Status code: 400**

**Table 3-23** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

**Status code: 401**

**Table 3-24** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

**Status code: 403**

**Table 3-25** Response body parameters

Parameter	Type	Description
error_code	String	Error Code

Parameter	Type	Description
error_description	String	Permissions required.

**Status code: 404**

**Table 3-26** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	CBH instances not found.

## Example Requests

```
{
  "publicip_id" : "59f0dd3c-488f-4fa7-bc4c-9ffb8ea5f0cd",
  "public_eip" : "100.95.148.24"
}
```

## Example Responses

None

## Status Codes

Status Code	Description
200	request info:"success"
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

## 3.1.5 Unbinding an EIP from a CBH Instance

### Function

This API is used to unbind an EIP from a CBH instance.

### URI

POST /v1/{project\_id}/cbs/instance/{server\_id}/eip/unbind

**Table 3-27** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .
server_id	Yes	String	CBH instance ID, in the UUID format.

### Request Parameters

**Table 3-28** Request body parameters

Parameter	Mandatory	Type	Description
publicip_id	Yes	String	EIP ID, in the UUID format.
public_eip	Yes	String	EIP, in the IP address format.

### Response Parameters

**Status code: 400**

**Table 3-29** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

**Status code: 401**

**Table 3-30** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

**Status code: 403**

**Table 3-31** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

**Status code: 404**

**Table 3-32** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	CBH instances not found.

## Example Requests

```
{
  "publicip_id" : "59f0dd3c-488f-4fa7-bc4c-9ffb8ea5f0cd",
  "public_eip" : "100.95.148.24"
}
```

## Example Responses

None

## Status Codes

Status Code	Description
200	request info:"success"
400	Bad Request



Status Code	Description
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

### 3.1.6 Changing the Password of the admin User

#### Function

This API is used to change the password of user **admin**.

#### URI

PUT /v1/{project\_id}/cbs/instance/password

**Table 3-33** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .

#### Request Parameters

**Table 3-34** Request body parameters

Parameter	Mandatory	Type	Description
new_password	Yes	String	The new password of user <b>admin</b> can contain 8 to 32 characters, including letters, digits, and special characters.
server_id	Yes	String	CBH instance ID, in the UUID format.

## Response Parameters

### Status code: 200

**Table 3-35** Response body parameters

Parameter	Type	Description
request_info	String	Response text.

### Status code: 400

**Table 3-36** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

### Status code: 401

**Table 3-37** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

### Status code: 403

**Table 3-38** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

### Status code: 404

**Table 3-39** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	CBH instances not found.

## Example Requests

```
{
  "new_password" : "Huawei@123",
  "server_id" : "6e22aced-2fdb-42e9-9175-4796fbe9fc23"
}
```

## Example Responses

**Status code: 200**

request info:"success"

```
{
  "request info" : "success"
}
```

## Status Codes

Status Code	Description
200	request info:"success"
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

### 3.1.7 Starting a CBH Instance

#### Function

This API is used to start a CBH instance.

#### URI

POST /v1/{project\_id}/cbs/instance/start

**Table 3-40** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .

## Request Parameters

**Table 3-41** Request body parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	CBH instance ID, in the UUID format.

## Response Parameters

**Status code: 400**

**Table 3-42** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

**Status code: 401**

**Table 3-43** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

**Status code: 403**

**Table 3-44** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

**Status code: 404**

**Table 3-45** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	CBH instances not found.

## Example Requests

```
{
  "instance_id" : "6e22aced-2fdb-42e9-9175-4796fbe9fc23"
}
```

## Example Responses

None

## Status Codes

Status Code	Description
200	request info:"success"
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

## 3.1.8 Configuring MFA for User admin

### Function

This API is used to configure MFA for user **admin**.

### URI

PUT /v1/{project\_id}/cbs/instance/{server\_id}/login-method

**Table 3-46** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .
server_id	Yes	String	CBH instance ID, in the UUID format.

### Request Parameters

None

### Response Parameters

**Status code: 200**

**Table 3-47** Response body parameters

Parameter	Type	Description
request_info	String	Requested information

**Status code: 400**

**Table 3-48** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

**Status code: 401**

**Table 3-49** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

**Status code: 403**

**Table 3-50** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

**Status code: 404**

**Table 3-51** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	CBH instances not found.

## Example Requests

None

## Example Responses

**Status code: 200**

request info:"success"

```
{
  "request info" : "success"
}
```

## Status Codes

Status Code	Description
200	request info:"success"
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

## 3.1.9 Modifying CBH Instance Network Settings

### Function

This API is used to modify CBH instance network settings.

### URI

POST /v1/{project\_id}/cbs/{server\_id}/network/change

**Table 3-52** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .
server_id	Yes	String	CBH instance ID, in the UUID format.



## Request Parameters

**Table 3-53** Request body parameters

Parameter	Mandatory	Type	Description
type	Yes	String	CBH instance status. The value can be: <ul style="list-style-type: none"> <li>• <b>create</b>: The instance is being created.</li> <li>• <b>renewals</b>: The instance is being renewed.</li> <li>• <b>change</b>: The instance specifications are being upgraded.</li> </ul>
security_groups	Yes	Array of <a href="#">SecurityGroup</a> objects	New security group that the CBH instance belongs to.
nics	Yes	Array of <a href="#">Nics</a> objects	New NIC that the CBH instance uses.
server_id	No	String	CBH instance ID. This parameter is mandatory when the status is <b>renewals</b> or <b>change</b> .

**Table 3-54** SecurityGroup

Parameter	Mandatory	Type	Description
id	Yes	String	Security group ID, which consists of letters, digits, and underscores (_).

**Table 3-55** Nics

Parameter	Mandatory	Type	Description
subnet_id	Yes	String	Subnet ID, which consists of letters, digits, and underscores (_).
ip_address	No	String	IP address. If the value of this parameter is left blank or is set to an empty string, the IP address is automatically assigned.

## Response Parameters

### Status code: 200

**Table 3-56** Response body parameters

Parameter	Type	Description
status	String	Status.
security_grp_status	String	Security group.
firewall_status	Boolean	Firewall status.
public_eip_status	Boolean	EIP status.
nics	Boolean	Firewall status (compatible).
public_eip_status	Boolean	EIP status (compatible).

### Status code: 400

**Table 3-57** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

### Status code: 401

**Table 3-58** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

### Status code: 403

**Table 3-59** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

**Status code: 404**

**Table 3-60** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	CBH instances not found.

## Example Requests

```
{
  "type": "create",
  "security_groups": [{
    "id": "02dcf62d-b84d-4a14-aad3-c310f2ceea55"
  }],
  "nics": [{
    "subnet_id": "dd08a6a9-ced7-484b-ace6-1b821854a772",
    "ip_address": "100.93.5.36"
  }]
}
```

## Example Responses

**Status code: 200**

Cbh ChangeInstanceNetwork Success

```
{
  "status": false,
  "security_grp_status": true,
  "firewall_status": false,
  "public_eip_status": true
}
```

## Status Codes

Status Code	Description
200	Cbh ChangeInstanceNetwork Success
400	Bad Request

Status Code	Description
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

## 3.2 Querying CBH Details

### 3.2.1 Obtaining the CBH Instance List

#### Function

This API is used to query the list of CBH instances.

#### URI

GET /v1/{project\_id}/cbs/instance/list

**Table 3-61** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .

#### Request Parameters

None

#### Response Parameters

**Status code: 200**

**Table 3-62** Response body parameters

Parameter	Type	Description
total	Integer	Total number of CBH instances
quotaDetail	<a href="#">QuotaDetail</a> object	CBH quota for the current account. null is returned for the public cloud.
instance	Array of <a href="#">InstanceDetail</a> objects	CBH instance list

**Table 3-63** QuotaDetail

Parameter	Type	Description
zh_cn	String	Quota description.
en_us	String	Quota description.
remaining	Integer	Remaining quota.

**Table 3-64** InstanceDetail

Parameter	Type	Description
publicip	String	EIP bound to the CBH instance. By default, null is returned.
expTime	String	CBH instance expiration time.
startTime	String	Time the CBH instance starts, in the format of timestamp
endTime	String	Time the CBH instance stopped, in the format of timestamp
releaseTime	String	Time the CBH instance was released, in the format of timestamp
name	String	CBH instance name
instanceId	String	CBH instance ID, in the UUID format.
privateIp	String	Private IP address of the CBH instance
taskStatus	String	CBH instance task status.
status	String	CBH instance status
created	String	Time the CBH instance is created. The time must be UTC time.

Parameter	Type	Description
region	String	Region where the CBH instance locates.
zone	String	AZ where the CBH instance locates.
availability_zone_display	String	AZ where the CBH instance locates.
vpcId	String	ID of the VPC where the CBH instance locates.
subnetId	String	ID of the subnet where the CBH instance locates.
securityGroupId	String	ID of the Security group where the CBH instance locates.
specification	String	CBH instance specifications.
update	String	Whether the CBH instance image can be upgraded. <ul style="list-style-type: none"> <li>● <b>NEW</b>: The image can be upgraded.</li> <li>● <b>OLD</b>: The image cannot be upgraded.</li> </ul>
createinstanceStatus	String	Statuses of the CBH instance creation task. <ul style="list-style-type: none"> <li>● <b>Waiting for payment</b>: Waiting for payment</li> <li>● <b>creating-network</b>: Creating the network</li> <li>● <b>creating-server</b>: Creating the instance</li> <li>● <b>tranfering-horizontal-network</b>: Establishing the connection</li> <li>● <b>adding-policy-route</b>: Adding a routing policy</li> <li>● <b>configing-dns</b>: Configuring DNS</li> <li>● <b>starting-cbs-service</b>: Running</li> <li>● <b>setting-init-conf</b>: Initiating</li> <li>● <b>buying-EIP</b>: Purchasing an EIP</li> </ul>
failReason	String	CBH instance creation failure causes.
instanceKey	String	CBH instance key.
orderId	String	Order ID.
periodNum	String	The number of subscription cycles.
resourceId	String	CBH instance ID, in the UUID format.
bastion_type	String	CBH instance type. <b>-OEM</b>
alterPermit	String	Whether the CBH instance can be upgraded. <ul style="list-style-type: none"> <li>● <b>1</b>: Enable capacity expansion.</li> <li>● <b>0</b>: Disable capacity expansion.</li> </ul>

Parameter	Type	Description
publicId	String	ID of the EIP bound to the CBH instance, in the UUID format.
bastionVersion	String	Current version of the CBH instance image.
newBastionVersion	String	CBH instance image that can be upgraded.
instanceStatus	String	CBH instance status <ul style="list-style-type: none"> <li>● <b>building</b>: Creating</li> <li>● <b>deleting</b>: Deleting</li> <li>● <b>deleted</b>: Deleted</li> <li>● <b>unpaid</b>: Unpaid</li> <li>● <b>upgrading</b>: Upgrading</li> <li>● <b>resizing</b>: Resizing</li> <li>● <b>abnormal</b>: Abnormal</li> <li>● <b>error</b>: Faulty</li> <li>● <b>ok</b>: Normal</li> </ul>
instanceDescription	String	CBH instance status description.
slaveZone	String	AZ of the standby CBH instance. By default, null is returned.
enterpriseProjectId	String	ID of the enterprise project that the CBH instance belongs to.
instanceType	String	CBH instance type. <ul style="list-style-type: none"> <li>● <b>null</b>: The default value is null for the single-node deployment.</li> <li>● <b>master</b>: The primary CBH instance in HA scenarios.</li> <li>● <b>slave</b>: The standby CBH instance in HA scenarios.</li> </ul>
haid	String	HA ID of the CBH instance. <ul style="list-style-type: none"> <li>● By default, null is returned for the single-node deployment.</li> <li>● HA ID.</li> </ul>
slaveZoneDeploy	String	AZ where the standby CBH instance is deployed. null is returned for the CBH instance in single-node deployment or the standby CBH instance in HA scenarios.
webPort	String	Port used for accessing the CBH instance with a web browser.

Parameter	Type	Description
vip	String	Floating IP address of the CBH instance

**Status code: 400**

**Table 3-65** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

**Status code: 401**

**Table 3-66** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

**Status code: 403**

**Table 3-67** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

**Status code: 404**

**Table 3-68** Response body parameters

Parameter	Type	Description
error_code	String	Error Code



Parameter	Type	Description
error_description	String	CBH instances not found.

## Example Requests

None

## Example Responses

**Status code: 200**

The query is successful.

```
{
  "total": 1,
  "quotaDetail": "null",
  "instance": [ {
    "publicip": "null",
    "expTime": "14",
    "startTime": "1669911490000",
    "endTime": "1672675199000",
    "releaseTime": "1675267199000",
    "name": "CBH-8a80",
    "instanceId": "f7854c8d-9bbc-4970-8b7d-6ed8280f6bfe",
    "privateIp": "192.168.0.67",
    "status": "SHUTOFF",
    "taskStatus": "NO_TASK",
    "created": "2022-12-02 00:04:42.0",
    "region": "cn-north-4",
    "zone": "cn-north-4c",
    "availability_zone_display": "AZ 3",
    "vpId": "279e8217-4a8a-4d83-8fd9-b8f14d47170b",
    "subnetId": "a86217e6-a96d-4803-ae5c-b57da6811249",
    "securityGroupId": "c5564ac2-bdcf-4e45-b892-92c2ae79eccd9",
    "specification": "cbh.basic.50",
    "update": "OLD",
    "createInstanceStatus": "starting-cbs-service",
    "failReason": "No FailReason Now",
    "instanceKey": "6771",
    "orderId": "CS22120200031TOLA",
    "periodNum": "1,2",
    "resourceId": "01903dfb-11fc-4ae4-8bff-bca51d11ad92",
    "bastion_type": "OEM",
    "publicId": "",
    "alterPermit": "1",
    "bastionVersion": "3.3.41.0",
    "newBastionVersion": "3.3.40.1",
    "instanceStatus": "error",
    "instanceDescription": "LoadBalance service error!,2022-12-19 17:14:30,{\"d_usage\": \"0.80\", \"m_usage\": \"30.04\", \"c_usage\": \"0.62\", \"session_count\": \"0\"}",
    "webPort": "443",
    "enterpriseProjectId": "0",
    "vip": null,
    "slaveZone": null,
    "slaveZoneDisplay": null,
    "hald": null,
    "instanceType": null
  } ]
}
```

## Status Codes

Status Code	Description
200	The query is successful.
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

## 3.2.2 Obtaining the ECS Quota

### Function

This API is used to obtain the details about the specifications and AZ of the selected ECS so as to determine whether the ECS can be used.

### URI

GET /v1/{project\_id}/cbs/instance/ecs-quota

**Table 3-69** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .

**Table 3-70** Query Parameters

Parameter	Mandatory	Type	Description
availability_zone	Yes	String	AZ of the CBH instance being created. You can view Regions and Endpoints at <a href="https://developer.huaweicloud.com/intl/en-us/endpoint">https://developer.huaweicloud.com/intl/en-us/endpoint</a> .

Parameter	Mandatory	Type	Description
resource_spec_code	Yes	String	CBH instance specification ID. <ul style="list-style-type: none"> <li>• <b>cbh.basic.50</b>: Standard edition/50 assets.</li> <li>• <b>cbh.enhance.50</b>: Professional edition/50 assets. For more details, see "CBH Instance Editions" at <a href="https://support.huaweicloud.com/intl/en-us/cbh_faq/cbh_03_0025.html">https://support.huaweicloud.com/intl/en-us/cbh_faq/cbh_03_0025.html</a>.</li> </ul>

## Request Parameters

None

## Response Parameters

Status code: 200

Table 3-71 Response body parameters

Parameter	Type	Description
status_v6	String	Status of ECSs that support IPv6 addresses. <ul style="list-style-type: none"> <li>• <b>sellout</b>: The type of ECS is sold out.</li> <li>• <b>normal</b>: The type of ECS is in commercial use.</li> <li>• <b>abandon</b>: The type of ECS is discontinued (not displayed on the console).</li> </ul>
status	String	Status of ECSs. <ul style="list-style-type: none"> <li>• <b>sellout</b>: The type of ECS is sold out.</li> <li>• <b>normal</b>: The type of ECS is in commercial use.</li> <li>• <b>abandon</b>: The type of ECS is discontinued (not displayed on the console).</li> </ul>
eip_quota	Integer	ECS quota. By default, null is returned.
quota	Integer	Remaining CBH quota. By default, null is returned.

Status code: 400

**Table 3-72** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

**Status code: 401**

**Table 3-73** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

**Status code: 403**

**Table 3-74** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

**Status code: 404**

**Table 3-75** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	CBH instances not found.

## Example Requests

None

## Example Responses

**Status code: 200**

Get Ecs Quota Success

```
{
  "status_v6" : "sellout",
  "status" : "normal"
}
```

## Status Codes

Status Code	Description
200	Get Ecs Quota Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

## 3.2.3 Checking CBH Instance Network Connection

### Function

This API is used to check network connection of a CBH instance.

### URI

POST /v1/{project\_id}/cbs/network/configuration

**Table 3-76** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .

## Request Parameters

**Table 3-77** Request body parameters

Parameter	Mandatory	Type	Description
type	Yes	String	CBH instance status. The value can be: <ul style="list-style-type: none"> <li>• <b>create</b>: The instance is being created.</li> <li>• <b>renewals</b>: The instance is being renewed.</li> <li>• <b>change</b>: The instance specifications are being changed. When the status is <b>renewals</b> or <b>change</b>, <b>server_id</b> must be included.</li> </ul>
security_groups	Yes	Array of <b>SecurityGroup</b> objects	Security group that the CBH instance belongs to.
nics	Yes	Array of <b>Nics</b> objects	NIC the CBH instance uses.
server_id	No	String	CBH instance ID.

**Table 3-78** SecurityGroup

Parameter	Mandatory	Type	Description
id	Yes	String	Security group ID, which consists of letters, digits, and underscores (_).

**Table 3-79** Nics

Parameter	Mandatory	Type	Description
subnet_id	Yes	String	Subnet ID, which consists of letters, digits, and underscores (_).
ip_address	No	String	IP address. If the value of this parameter is left blank or is set to an empty string, the IP address is automatically assigned.

## Response Parameters

**Status code: 200**

**Table 3-80** Response body parameters

Parameter	Type	Description
status	Boolean	CBH instance network status. The CBH instance network is normal when all of the three are true. If any of them is false, the network is abnormal.
security_grp_status	Boolean	CBH instance security group status. <ul style="list-style-type: none"> <li>• <b>true</b>: The status is normal.</li> <li>• <b>false</b>: The status is abnormal.</li> </ul>
firewall_status	Boolean	CBH instance firewall status. <ul style="list-style-type: none"> <li>• <b>true</b>: The status is normal.</li> <li>• <b>false</b>: The status is abnormal.</li> </ul>
public_eip_status	Boolean	CBH instance EIP status. <ul style="list-style-type: none"> <li>• <b>true</b>: The status is normal.</li> <li>• <b>false</b>: The status is abnormal.</li> </ul>

**Status code: 400**

**Table 3-81** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

**Status code: 401**

**Table 3-82** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

**Status code: 403**

**Table 3-83** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

**Status code: 404**

**Table 3-84** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	CBH instances not found.

## Example Requests

```
{
  "type": "create",
  "security_groups": [{
    "id": "02dcf62d-b84d-4a14-aad3-c310f2ceea55"
  }],
  "nics": [{
    "subnet_id": "dd08a6a9-ced7-484b-ace6-1b821854a772",
    "ip_address": "100.93.5.36"
  }]
}
```

## Example Responses

**Status code: 200**

Cbh GetNetworkConfiguration Success

```
{
  "status": false,
  "security_grp_status": true,
  "firewall_status": false,
  "public_eip_status": true
}
```

## Status Codes

Status Code	Description
200	Cbh GetNetworkConfiguration Success
400	Bad Request



Status Code	Description
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

## 3.2.4 Obtaining the AZ Where CBH Is Deployed

### Function

This API is used to obtain AZ where a CBH instance is deployed.

### URI

GET /v1/{project\_id}/cbs/available-zone

**Table 3-85** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .

### Request Parameters

None

### Response Parameters

Status code: 200

**Table 3-86** Response body parameters

Parameter	Type	Description
availability_zone	<a href="#">AvailabilityZones</a> object	AZ where a CBH instance is deployed.

**Table 3-87** AvailabilityZones

Parameter	Type	Description
id	String	ID of the AZ where a CBH instance is deployed.
display_name	String	Display name of the AZ where a CBH instance is deployed.
region_id	String	ID of the AZ where a CBH instance is deployed.
status	String	State of the AZ where a CBH instance is deployed.
type	String	Type of the AZ where a CBH instance is deployed.

**Status code: 400**

**Table 3-88** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

**Status code: 401**

**Table 3-89** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

**Status code: 403**

**Table 3-90** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

**Status code: 404**

**Table 3-91** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	CBH instances not found.

### Example Requests

None

### Example Responses

**Status code: 200**

Cbh List Information

```
{
  "availability_zone": [ {
    "region_id": "cn-north-4",
    "id": "cn-north-4a",
    "type": "Core",
    "display_name": "AZ 1",
    "status": "Running"
  }, {
    "region_id": "cn-north-4",
    "id": "cn-north-4b",
    "type": "Core",
    "display_name": "AZ 2",
    "status": "Running"
  }, {
    "region_id": "cn-north-4",
    "id": "cn-north-4c",
    "type": "Core",
    "display_name": "AZ 3",
    "status": "Running"
  }
]
```

### Status Codes

Status Code	Description
200	Cbh List Information
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

## 3.2.5 Querying CBH Quota

### Function

This API is used to query CBH quota.

### URI

GET /v1/{project\_id}/cbs/instance/quota

**Table 3-92** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .

### Request Parameters

None

### Response Parameters

**Status code: 200**

**Table 3-93** Response body parameters

Parameter	Type	Description
quota	Integer	Number of CBH instances you can create.
eip_quota	Integer	Number of EIPs. The default value is 1.
status_v6	String	Ipv6 status. By default, null is returned.
status	String	Ipv6 status. By default, null is returned.

**Status code: 400**

**Table 3-94** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

**Status code: 401**

**Table 3-95** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

**Status code: 403**

**Table 3-96** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

**Status code: 404**

**Table 3-97** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	CBH instances not found.

## Example Requests

None

## Example Responses

**Status code: 200**

request info:"success"

```
{  
  "eip_quota" : 1,  
  "status_v6" : null,  
  "quota" : 0,  
  "status" : null  
}
```

## Status Codes

Status Code	Description
200	request info:"success"
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

## 3.3 Managing CBH Orders

### 3.3.1 Creating a CBH Instance Subscription Order

#### Function

This API is used to create a CBH Instance subscription order.

#### URI

POST /v1/{project\_id}/cbs/period/order

**Table 3-98** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .

## Request Parameters

**Table 3-99** Request body parameters

Parameter	Mandatory	Type	Description
instance_key	Yes	Integer	CBH instance ID.
cloud_service_type	Yes	String	Cloud service type. Default value: <b>hws.service.type.cbh</b>
region_id	Yes	String	CBH instance region ID.
charging_mode	Yes	Integer	Billing mode. - <b>0</b> : Yearly/Monthly
period_type	Yes	Integer	Subscription type <ul style="list-style-type: none"> <li><b>2</b>: By month.</li> <li><b>3</b>: By year.</li> <li><b>5</b>: Absolute required duration.</li> </ul>
period_num	Yes	Integer	Number of subscription periods. <ul style="list-style-type: none"> <li><b>period_type</b> is set to <b>2</b>: Monthly billed. Value range: [1, 9]</li> <li><b>periodType</b> is set to <b>3</b>: Yearly billed. Value range: [1, 10]</li> <li><b>periodType</b> is set to <b>5</b>: Can be left blank.</li> </ul>
product_infos	Yes	Array of <b>ProductInfos</b> objects	Product information
is_auto_renew	Yes	Integer	Specifies whether auto renew is enabled. <ul style="list-style-type: none"> <li><b>1</b>: Auto-renewal is enabled.</li> <li><b>0</b>: Auto-renewal is disabled (default).</li> </ul>

Parameter	Mandatory	Type	Description
subscription_number	Yes	Integer	Number of subscriptions. The value is greater than 0.

**Table 3-100** ProductInfos

Parameter	Mandatory	Type	Description
product_id	Yes	String	Product ID, which is obtained by calling the inquiry API.
cloud_service_type	Yes	String	Cloud service type. The value is fixed at <b>hws.service.type.cbh</b> .
resource_type	Yes	String	CBH resource type. The value is fixed at <b>hws.resource.type.cbh.ins</b> .
resource_spec_code	Yes	String	CBH instance specification ID. The format is "cbh.Edition.Asset specifications", for example: <ul style="list-style-type: none"> <li>• <b>cbh.basic.50</b></li> <li>• <b>cbh.enhance.50</b> For more specifications, see "CBH Instance Editions" at <a href="https://support.huaweicloud.com/intl/en-us/productdesc-cbh/cbh_01_0010.html">https://support.huaweicloud.com/intl/en-us/productdesc-cbh/cbh_01_0010.html</a>.</li> </ul>
resource_size_measure_id	Yes	String	Resource capacity measurement ID. The options are as follows: <ul style="list-style-type: none"> <li>• <b>15</b>: Mbit/s for purchasing bandwidth.</li> <li>• <b>17</b>: GB for purchase EVS disks.</li> <li>• <b>14</b>: instances per time for purchasing CBH instances.</li> </ul>
resource_size	Yes	String	Resource capacity. The default value is 1.

## Response Parameters

**Status code: 200**



**Table 3-101** Response body parameters

Parameter	Type	Description
order_id	String	Order ID.

**Status code: 400**

**Table 3-102** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

**Status code: 401**

**Table 3-103** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

**Status code: 403**

**Table 3-104** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

**Status code: 404**

**Table 3-105** Response body parameters

Parameter	Type	Description
error_code	String	Error Code

Parameter	Type	Description
error_description	String	CBH instances not found.

## Example Requests

```
{
  "instance_key" : 6946,
  "cloud_service_type" : "hws.service.type.cbh",
  "region_id" : "cn-north-4",
  "charging_mode" : 0,
  "period_type" : 2,
  "period_num" : 1,
  "product_infos" : [ {
    "product_id" : "OFFI740586375358963717",
    "cloud_service_type" : "hws.service.type.cbh",
    "resource_type" : "hws.resource.type.cbh.ins",
    "resource_spec_code" : "cbh.basic.50",
    "resource_size_measure_id" : "14",
    "resource_size" : "1"
  } ],
  "is_auto_renew" : 0,
  "subscription_num" : 1
}
```

## Example Responses

**Status code: 200**

Cbh CreateInstanceOrder Success

```
{
  "order_id" : "CS22121916213LOXW"
}
```

## Status Codes

Status Code	Description
200	Cbh CreateInstanceOrder Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

## 3.3.2 Creating a CBH Instance

### Function

This API is used to create a CBH instance. Before creating a CBH instance subscription order, call this API to create a CBH instance.

### URI

POST /v1/{project\_id}/cbs/instance/create

**Table 3-106** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .

### Request Parameters

**Table 3-107** Request body parameters

Parameter	Mandatory	Type	Description
server	Yes	<b>CBHInstances</b> object	Parameters in the request for creating a CBH instance.

**Table 3-108** CBHInstances

Parameter	Mandatory	Type	Description
flavor_ref	Yes	String	CBH instance specification ID. The format is "cbh.Edition.Asset specifications", for example: <ul style="list-style-type: none"> <li><b>cbh.basic.50</b></li> <li><b>cbh.enhance.50</b> For more specifications, see "CBH Instance Editions" at <a href="https://support.huaweicloud.com/intl/en-us/productdesc-cbh/cbh_01_0010.html">https://support.huaweicloud.com/intl/en-us/productdesc-cbh/cbh_01_0010.html</a>.</li> </ul>

Parameter	Mandatory	Type	Description
instance_name	Yes	String	CBH instance name. Value range: It can contain 1 to 64 characters, including only letters, digits, underscores (_), and hyphens (-). Example: CBH-6b8e
is_custom	No	String	Whether to manually assign an IP address. The value can only be <b>True</b> or <b>False</b> . The default value is <b>False</b> . <b>False</b> : The IP address is automatically assigned.
master_ip	No	String	IP address of the active node. This parameter is mandatory when <b>is_custom</b> is set to <b>True</b> . <ul style="list-style-type: none"> <li>Only available IP addresses in the selected subnet can be used. If incorrect IP addresses are used, CBH cannot be created. Example: 192.168.0.1</li> </ul>
salve_ip	No	String	IP address of the standby node. This parameter is mandatory when <b>is_custom</b> is set to <b>True</b> . <ul style="list-style-type: none"> <li>Only available IP addresses in the selected subnet can be used. If incorrect IP addresses are used, CBH cannot be created. Example, 192.168.0.2.</li> </ul>
floating_ip	No	String	Floating IP address. This parameter is mandatory when <b>is_custom</b> is set to <b>True</b> . <ul style="list-style-type: none"> <li>Only available IP addresses in the selected subnet can be used. If incorrect IP addresses are used, CBH cannot be created. Example, 192.168.0.3.</li> </ul>

Parameter	Mandatory	Type	Description
vpc_id	Yes	String	ID of the VPC to which the ECS belongs. The value is in UUID format. You can obtain the VPC ID from the console or by referring to section <b>Querying a VPC</b> in the <i>Virtual Private Cloud API Reference</i> . Example: 03211ecf-697e-4306-a7a0-6e939bf948de
nics	Yes	Array of <b>Nics</b> objects	CBH instance NIC details
public_ip	Yes	<b>PublicIp</b> object	EIP bound to a CBH instance.
security_groups	Yes	Array of <b>SecurityGroup</b> objects	Security group information.
availability_zone	Yes	String	AZ where the CBH instance is created. You can view Regions and Endpoints at <a href="https://developer.huaweicloud.com/intl/en-us/endpoint">https://developer.huaweicloud.com/intl/en-us/endpoint</a> .
slave_availability_zone	No	String	AZ where the standby CBH instance is created. You can view Regions and Endpoints at <a href="https://developer.huaweicloud.com/intl/en-us/endpoint">https://developer.huaweicloud.com/intl/en-us/endpoint</a> .
comment	No	String	CBH instance description details
region	Yes	String	ID of the region where the cloud service is located.
hx_password	Yes	String	Password for logging in to the CBH instance. The password can contain 8 to 32 characters. It cannot contain <b>admin</b> , <b>idma</b> , or uppercase letters. It must contain three types of the following characters: uppercase, lowercase, digits, and special characters.

Parameter	Mandatory	Type	Description
ipv6_enable	No	Boolean	Whether IPv6 addresses are supported. If this parameter is not specified, the default value is <b>false</b> .

**Table 3-109** Nics

Parameter	Mandatory	Type	Description
subnet_id	Yes	String	Subnet ID, which consists of letters, digits, and underscores (_).
ip_address	No	String	IP address. If the value of this parameter is left blank or is set to an empty string, the IP address is automatically assigned.

**Table 3-110** PublicIp

Parameter	Mandatory	Type	Description
id	Yes	String	You can provide the ID of the assigned EIP or the EIP.
public_eip	Yes	String	IP address mapped to the ID of the assigned EIP.
eip	No	<b>Eip</b> object	EIP

**Table 3-111** Eip

Parameter	Mandatory	Type	Description
ip_type	Yes	String	IP address version of the EIP.
ip_product_id	Yes	String	Product ID corresponding to the IP address
bandwidth	Yes	<b>BandWidth</b> object	Bandwidth parameters.

**Table 3-112** BandWidth

Parameter	Mandatory	Type	Description
size	Yes	String	Bandwidth. The value ranges from 1 to 100 for pay-per-use and from 1 to 300 for yearly/ monthly subscriptions.
share_type	Yes	String	How the bandwidth is shared. Currently, only <b>PER</b> is supported.
charge_mode	Yes	String	The bandwidth billing type. The value can be <b>traffic</b> or null.
product_id	Yes	String	Product ID corresponding to the bandwidth.

**Table 3-113** SecurityGroup

Parameter	Mandatory	Type	Description
id	Yes	String	Security group ID, which consists of letters, digits, and underscores (_).

## Response Parameters

**Status code: 400**

**Table 3-114** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

**Status code: 401**

**Table 3-115** Response body parameters

Parameter	Type	Description
error_code	String	Error Code

Parameter	Type	Description
error_description	String	Failed to verify the token.

**Status code: 403**

**Table 3-116** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

**Status code: 404**

**Table 3-117** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	CBH instances not found.

## Example Requests

```
{
  "server": {
    "flavor_ref": "cbh.basic.50",
    "instance_name": "CBH-155f",
    "is_custom": "false",
    "master_ip": "192.168.0.1",
    "slave_ip": "192.168.0.2",
    "floating_ip": "192.168.0.3",
    "vpc_id": "279e8217-4a8a-4d83-8fd9-b8f14d47170b",
    "nics": [ {
      "subnet_id": "a86217e6-a96d-4803-ae5c-b57da6811249"
    } ],
    "public_ip": {
      "id": "cfcab481-0831-4e23-a739-d6cdd0ef3630",
      "public_eip": "123.249.41.4"
    },
    "security_groups": [ {
      "id": "1e10bc4f-9a36-4452-a867-8ddb4348c15e"
    } ],
    "availability_zone": "cn-north-4a",
    "slave_availability_zone": "cn-north-4b",
    "comment": "success",
    "region": "cn-north-4",
    "hx_password": "12345678"
  }
}
```



## Example Responses

None

## Status Codes

Status Code	Description
200	Cbh CreateInstance Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

### 3.3.3 Creating a CBH Instance Specification Change Order

#### Function

This API is used to create a CBH instance specification change order. Before calling this API, call the API for creating a CBH instance. This API is not supported currently.

#### URI

GET /v1/{project\_id}/cbs/{server\_id}/alter/{instance\_key}

**Table 3-118** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. You can obtain the project ID by referring to <a href="https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html">https://support.huaweicloud.com/intl/en-us/api-cbh/cbh_02_0020.html</a> .
server_id	Yes	String	CBH instance ID.
instance_key	Yes	String	CBH instance key.

## Request Parameters

None

## Response Parameters

**Status code: 200**

**Table 3-119** Response body parameters

Parameter	Type	Description
orderId	String	Order ID.

**Status code: 400**

**Table 3-120** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Incorrect request parameter.

**Status code: 401**

**Table 3-121** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Failed to verify the token.

**Status code: 403**

**Table 3-122** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	Permissions required.

**Status code: 404**

**Table 3-123** Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_description	String	CBH instances not found.

## Example Requests

None

## Example Responses

**Status code: 200**

Cbh AlterInstanceOrder Success

```
{
  "orderId" : 123456789
}
```

## Status Codes

Status Code	Description
200	Cbh AlterInstanceOrder Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

## Error Codes

See [Error Codes](#).

# A Appendixes

## A.1 Status Codes

Code	Status	Description
200	OK	Request successful.
400	Bad Request	Request failed. Modify the request and then try again.
401	Unauthorized	Authentication failed. The authentication information provided by the client is incorrect or invalid.
403	Forbidden	Request rejected. Modify the request and then try again. The server has received and understood the request; yet it refused to respond, because the request is set to deny access.
404	NotFound	Cannot find the requested resource. Modify the request and then try again.
500	InternalServerError	Internal error. The server is able to receive the request but it could not understand the request.

## A.2 Error Codes

Status Code	Error Codes	Error Message	Description	Solution
400	CBH.10020009	Invalid request format.	Invalid request format.	Invalid request format.
400	CBH.10020010	Incorrect request body parameter.	Incorrect request body parameter.	Check the request parameter.
400	CBH.10020011	Incorrect server ID.	Incorrect server ID.	Incorrect server ID.
401	CBH.10020100	Invalid IAM token.	IAM authentication failed.	Check the token.
403	CBH.10020002	Tenant has no permissions.	Permissions required.	The tenant does not have the permission. Check the user permission on IAM.
500	CBH.10020000	Unknown error.	Unknown error.	Unknown error. Contact technical support.

## A.3 Obtaining a Project ID

### Obtaining a Project ID by Calling an API

You can obtain the project ID by calling the IAM API used to query project information based on the specified criteria.

The API used to obtain a project ID is GET `https://{Endpoint}/v3/projects`. **{Endpoint}** is the IAM endpoint and can be obtained from the administrator. For details about API authentication, see [Authentication](#).

In the following example, **id** indicates the project ID.

```
{
  "projects": [
    {
      "domain_id": "65382450e8f64ac0870cd180d14e684b",
      "is_domain": false,
      "parent_id": "65382450e8f64ac0870cd180d14e684b",
      "name": "xxxxxxx",
      "description": "",
      "links": {
```

```
    "next": null,
    "previous": null,
    "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
  },
  "id": "a4a5d4098fb4474fa22cd05f897d6b99",
  "enabled": true
}
],
"links": {
  "next": null,
  "previous": null,
  "self": "https://www.example.com/v3/projects"
}
}
```

## Obtaining a Project ID from the Console

A project ID is required for some URLs when an API is called. To obtain a project ID, perform the following operations:

1. Log in to the management console.
2. Click the username and choose **Basic Information** from the drop-down list.
3. On the **Account Info** page, click **Manage** next to **Security Credentials**.  
On the **My Credentials** page, view project IDs in the project list.

# B Change History

---