

Cloud Bastion Host (CBH)

API Reference

Issue 02
Date 2025-02-13



Copyright © Huawei Cloud Computing Technologies Co., Ltd. 2025. All rights reserved.

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Cloud Computing Technologies Co., Ltd.

Trademarks and Permissions



HUAWEI and other Huawei trademarks are the property of Huawei Technologies Co., Ltd.

All other trademarks and trade names mentioned in this document are the property of their respective holders.

Notice

The purchased products, services and features are stipulated by the contract made between Huawei Cloud and the customer. All or part of the products, services and features described in this document may not be within the purchase scope or the usage scope. Unless otherwise specified in the contract, all statements, information, and recommendations in this document are provided "AS IS" without warranties, guarantees or representations of any kind, either express or implied.

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

Huawei Cloud Computing Technologies Co., Ltd.

Address: Huawei Cloud Data Center Jiaoxinggong Road
Qianzhong Avenue
Gui'an New District
Gui Zhou 550029
People's Republic of China

Website: <https://www.huaweicloud.com/intl/en-us/>

Contents

1 Before You Start	1
2 Calling APIs	3
2.1 Making an API Request	3
2.2 Authentication	6
2.3 Response	7
3 API Description	9
3.1 Querying AZs	9
3.1.1 Obtaining AZs Where CBH Is Available	9
3.2 Quota Management	12
3.2.1 Obtaining the ECS Resource Quota Required for Creating a CBH Instance	12
3.2.2 Obtaining the CBH Instance Quota	15
3.3 Specifications Management	18
3.3.1 Querying CBH Instance Specifications	18
3.4 Operation Management	22
3.4.1 Obtaining the CBH Instance List	22
3.4.2 Obtaining the Status of a CBH Instance	30
3.4.3 Starting a CBH Instance	33
3.4.4 Stopping a CBH Instance	35
3.4.5 Restarting a CBH Instance	38
3.4.6 Upgrading a CBH Instance	40
3.4.7 Log In to a CBH Instance Console as an IAM User	43
3.4.8 Resetting the admin Password of a CBH Instance	46
3.4.9 Resetting the Login Mode for User Admin for a CBH Instance	49
3.4.10 Obtaining an O&M URL	51
3.4.11 Deleting a Faulty CBH Instance	55
3.4.12 Changing a CBH Instance	57
3.4.13 Rolling Back a CBH Instance	61
3.4.14 Logging In to a CBH Instance Console as User admin	64
3.4.15 Changing the Type of a Single-Node CBH Instance	66
3.5 Lifecycle Management	69
3.5.1 Creating a CBH Instance	69
3.6 Network Management	77

3.6.1 Binding an EIP to a CBH Instance.....	77
3.6.2 Unbinding an EIP from a CBH Instance.....	80
3.6.3 Changing the Security Group for a CBH Instance.....	82
3.6.4 Changing the VPC A CBH Instance Belongs To.....	85
3.7 Agency Authorization.....	88
3.7.1 Authorizing CBH.....	89
3.7.2 Creating or Canceling an Agency Authorization for CBH.....	91
3.8 Label Management.....	94
3.8.1 Querying Resource Tags of an Account in a Project.....	94
3.8.2 Querying the Tag Information of a CBH Instance.....	97
3.8.3 Counting the Number of Instances with a Specified Tag.....	100
3.8.4 Querying Instances by Tags.....	108
3.8.5 Performing Operations on a CBH Instance Tag.....	121
A Appendixes.....	125
A.1 Status Codes.....	125
A.2 Error Codes.....	126
A.3 Obtaining a Project ID.....	126

1 Before You Start

Overview

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

API Calling

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

Endpoints

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions. For the endpoints of all services, see [Regions and Endpoints](#).

Basic Concepts

- Account
An account is created upon successful registration. The account has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. The domain is a payment entity and should not be used directly to perform routine management. For security purposes, create users and grant them permissions for routine management.
- User
A user is created using a domain to use cloud services. Each user has its own identity credentials (password and access keys).
The account name, username, and password will be required for API authentication.
- 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.

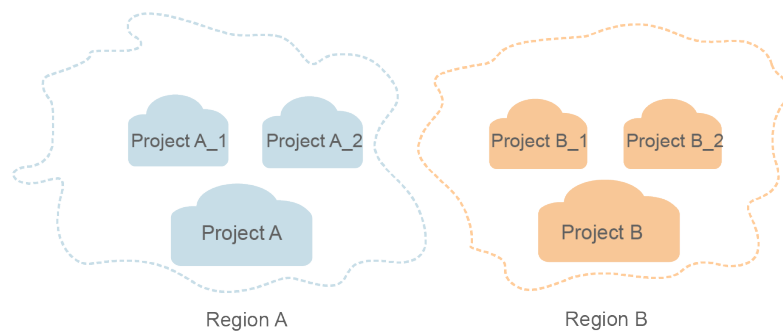
- Availability Zone (AZ)

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

A project corresponds to a region. Projects group and isolate resources (including compute, storage, and network resources) across physical regions. Users can be granted permissions in a default project to access all resources in the region associated with the 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 isolating model



API Versions

CBH provides V1 and V2 APIs for you.

APIs of V2 are recommended. APIs of V1 are no longer maintained.

2 Calling APIs

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.

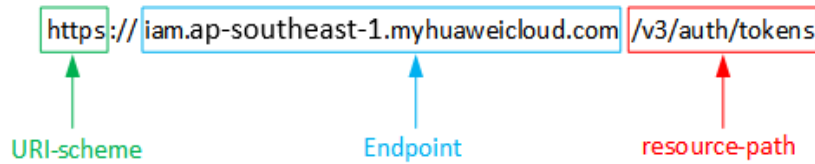
- **URI-scheme:**
Protocol used to transmit requests. All APIs use HTTPS.
- **Endpoint:**
Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from [Regions and Endpoints](#).
For example, the endpoint of IAM in region **CN-Hong Kong** is **iam.ap-southeast-1.myhuaweicloud.com**.
- **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.

For example, to obtain an IAM token in the **CN-Hong Kong** region, obtain the endpoint of IAM (iam.ap-southeast-1.myhuaweicloud.com)) for this region and

the **resource-path** (`/v3/auth/tokens`) in the URI of the API used to **obtain a user token**. Then, construct the URI as follows:

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

Figure 2-1 Example URI



 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 [Regions and Endpoints](#). Check the value of the **Region** column.

 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": "xxxxxxxx"  
    }  
  }  
}
```

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. For details about how to sign requests and use the signing SDK, see [API Signature Guide](#).

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 [obtain a user token](#), the request is successful.

Response Header

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

Figure 2-2 shows the response header for the API of [obtaining a user token](#), in which **x-subject-token** is the desired user token. Then, you can use the token to authenticate the calling of other APIs.

Figure 2-2 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 → MIIYXQYJKoZIhvcNAQcCoIIYTCCEoCAQExDTALBglghkgBZQMEAgEwgharBgkqhkiG9w0BBwGgghacBIIWmHsidG9rZW4iOansiZXhwaXJlc19hdCI6IjwMTktMDItMTNUMD
fj3KJs6YgKnpVNRbW2eZ5eb78SZOkajACgkqO1wi4JIGzrpd1.8LGXK5bdfq4lqHCYb8P4NaYONYejeAgzVefYtLWT1GSO0zxKZmlQHq82HBqHdgIZO9fuEebL5dMhdavj+33wEI
xHRCE9I87o+k9-
j+CMZSEB7bUGd5Uj6eRASXl1jipPEGA270g1FruooL6jggIFkNPQuFSOU8+uSsttVwRtnfsC+qTp22Rkd5MCqFGQ8LcuUxC3a+9CMBnOintWW7oeRUUVhVpxk8pxiX1wTEboX-
RzT6MUbvpvGw-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 **obtain a user token**. 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 Querying AZs

3.1.1 Obtaining AZs Where CBH Is Available

Function

This API is used to query AZs where CBH is available.

URI

GET /v2/{project_id}/cbs/available-zone

Table 3-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Response Parameters

Status code: 200

Table 3-3 Response body parameters

Parameter	Type	Description
availability_zone	Array of AvailabilityZones objects	AZ information.

Table 3-4 AvailabilityZones

Parameter	Type	Description
region_id	String	AZ ID.
id	String	AZ ID.
display_name	String	Displayed AZ name.
status	String	AZ status. <ul style="list-style-type: none"> Running
type	String	AZ type. <ul style="list-style-type: none"> Core: core AZ Dedicated: dedicated AZ, which is open only to internal users.

Status code: 400

Table 3-5 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-6 Response body parameters

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

Status code: 403

Table 3-7 Response body parameters

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

Status code: 404

Table 3-8 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

None

Example Responses

Status code: 200

List AvailableZone Info Success

```
{  
  "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	List AvailableZone Info Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.2 Quota Management

3.2.1 Obtaining the ECS Resource Quota Required for Creating a CBH Instance

Function

Check whether the ECS specifications can be used for the CBH instance in the selected region.

URI

GET /v2/{project_id}/cbs/instance/ecs-quota

Table 3-9 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Table 3-10 Query Parameters

Parameter	Mandatory	Type	Description
availability_zone	Yes	String	AZ name. For details, see "Obtaining AZs Where CBH Is Available."
resource_spec_code	Yes	String	ID of the specification of the CBH instance to be created, for example: <ul style="list-style-type: none"> cbh.basic.10: Standard edition - Asset 10 cbh.enhance.10: Professional edition - Asset 10 For details, see "Querying CBH Instance Specifications."

Request Parameters

Table 3-11 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Response Parameters

Status code: 200

Table 3-12 Response body parameters

Parameter	Type	Description
status_v6	String	Status of CBH specifications that support IPv6. <ul style="list-style-type: none"> • sellout: sold out. • normal: in normal commercial use.
status	String	Status of CBH specifications. <ul style="list-style-type: none"> • sellout: sold out. • normal: in normal commercial use.

Status code: 400

Table 3-13 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-14 Response body parameters

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

Status code: 403

Table 3-15 Response body parameters

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

Status code: 404

Table 3-16 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances 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](#).

3.2.2 Obtaining the CBH Instance Quota

Function

This API is used to obtain the CBH instance quota.

URI

GET /v2/{project_id}/cbs/instance/quota

Table 3-17 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-18 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Response Parameters

Status code: 200

Table 3-19 Response body parameters

Parameter	Type	Description
quota	Integer	The maximum number of CBH instances that can be created.
quota_used	Integer	The number of created CBH instances.

Status code: 400

Table 3-20 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-21 Response body parameters

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

Status code: 403

Table 3-22 Response body parameters

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

Status code: 404

Table 3-23 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

None

Example Responses

Status code: 200

Search Quota success

```
{  
  "quota" : 5,  
  "quota_used" : 1  
}
```

Status Codes

Status Code	Description
200	Search Quota success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.3 Specifications Management

3.3.1 Querying CBH Instance Specifications

Function

This API is used to query CBH instance specifications.

URI

GET /v2/{project_id}/cbs/instance/specification

Table 3-24 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Table 3-25 Query Parameters

Parameter	Mandatory	Type	Description
action	Yes	String	This API is used to query what action is performed for the CBH instance specifications. <ul style="list-style-type: none"> • create: queries the specifications of CBH instances that can be created. • update: queries the specifications of a CBH instance that can be modified.
spec_code	No	String	CBH instance specifications. This parameter is mandatory when action is set to update .

Request Parameters

Table 3-26 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Response Parameters

Status code: 200

Table 3-27 Response body parameters

Parameter	Type	Description
[items]	Array of CbsGetSpecInfo objects	CBH instance specifications.

Table 3-28 CbsGetSpecInfo

Parameter	Type	Description
resource_spec_code	String	CBH instance specification name.
ecs_system_data_size	Integer	CBH instance system disk size, in GB.
cpu	Integer	The number of CPU cores of a CBH instance.
ram	Integer	The memory (GB) of the CBH instance.
asset	Integer	The number of assets for the CBH instance.
connection	Integer	The maximum number of concurrent connections for a CBH instance.
type	String	CBH instance specification type. <ul style="list-style-type: none"> ● basic: Standard edition ● enhance: Professional edition
data_disk_size	Number	Size of the data disk for the CBH instance, in TB.

Status code: 400

Table 3-29 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

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	Not CBH instances found.

Example Requests

None

Example Responses

Status code: 200

CBH instance specifications queried

```
[ {
  "data_disk_size" : 1,
  "ecs_system_data_size" : 10,
  "cpu" : 4,
  "connection" : 10,
  "resource_spec_code" : "cbh.basic.xxx",
  "asset" : 10,
  "type" : "basic",
  "ram" : 8
}]
```

Status Codes

Status Code	Description
200	CBH instance specifications queried
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.4 Operation Management

3.4.1 Obtaining the CBH Instance List

Function

This API is used to obtain the CBH instance list of the current account.

URI

GET /v2/{project_id}/cbs/instance/list

Table 3-33 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Table 3-34 Query Parameters

Parameter	Mandatory	Type	Description
instance_id	No	Number	CBH instance ID. This parameter is mandatory only when you want to query details of a single instance.

Request Parameters

Table 3-35 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Response Parameters

Status code: 200

Table 3-36 Response body parameters

Parameter	Type	Description
total	Integer	The total number of CBH instances.
instance	Array of InstanceDetail objects	CBH instance list.

Table 3-37 InstanceDetail

Parameter	Type	Description
name	String	CBH instance name.
server_id	String	ID of the server where the CBH instance is deployed..
instance_id	String	CBH instance ID.
alter_permit	Boolean	Whether the CBH instance can be expanded. <ul style="list-style-type: none"> • true: Yes • false: No
enterprise_project_id	String	Project ID.
period_num	String	Number of subscription periods of a CBH instance.

Parameter	Type	Description
start_time	String	Start time of the CBH instance, in timestamp format.
end_time	String	End time of the CBH instance, in timestamp format.
created_time	String	Time when the CBH instance was created, in UTC format.
upgrade_time	Long	Upgrade schedule of the CBH instance, in the format of timestamp.
update	String	Whether the CBH instance can be upgraded. <ul style="list-style-type: none"> • OLD: The current version is the latest one. • NEW: Can be upgraded. • CROSS_OS: Can be upgraded to any later versions. • ROLLBACK: Can be rolled back.
bastion_version	String	Current version of the CBH instance.
az_info	az_info object	AZ information.
status_info	status_info object	Status information.
resource_info	resource_info object	Resource information.
network	network object	Network information.
ha_info	ha_info object	Active and standby node information.

Table 3-38 az_info

Parameter	Type	Description
region	String	ID of the AZ where the CBH instance locates.
zone	String	ID of the AZ where the CBH instance locates. (In primary/standby mode, the ID of the AZ where the primary instance locates is required.)
availability_zone_display	String	AZ where the CBH instance locates. (In primary/standby mode, the ID of the AZ where the primary instance locates is required. Name)

Parameter	Type	Description
slave_zone	String	AZ where the standby CBH instance locates.
slave_zone_display	String	AZ where the standby CBH instance locates.

Table 3-39 status_info

Parameter	Type	Description
status	String	<p>CBH instance status</p> <ul style="list-style-type: none"> • SHUTOFF: Closed • ACTIVE: Running • DELETING: Deleting • BUILD: Creating • DELETED: Deleting • ERROR: Faulty • HAWAIT: Waiting for the standby node to be created • FROZEN: Frozen • UPGRADING: Upgrading • UNPAID: Pending Payment • RESIZE: Changing specifications • DILATATION: Expanding capacity • HA: Configuring HA
task_status	String	<p>CBH instance status.</p> <ul style="list-style-type: none"> • powering-on: Started • powering-off: Stopped • rebooting: Rebooting • delete_wait: Deleting • frozen: Frozen • NO_TASK: Running • unfrozen: Unfrozen • alter: Changing • updating: Upgrading • configuring-ha: Configuring HA • data-migrating: Migrating data • rollback: Rolling back to the previous version. • traffic-switchover: Traffic switching

Parameter	Type	Description
create_instance_status	String	Status of a CBH instance during instance creation. <ul style="list-style-type: none"> • Waiting for payment: Waiting for payment • creating-network: Creating a network. • creating-server: Creating the service. • transferring-horizontal-network: Establishing network connections. • adding-policy-route: Adding a routing policy. • configuring-dns: Configuring DNS. • starting-cbs-service: The service is running. • setting-init-conf: Initializing • buying-EIP: Buying an EIP.
instance_status	String	CBH instance status. <ul style="list-style-type: none"> • building: Creating • deleting: Deleting • deleted: Deleted • unpaid: Unpaid • upgrading: Upgrading • resizing: Resizing • abnormal: Abnormal • error: Faulty • ok: Normal
instance_description	String	CBH instance description.
fail_reason	String	Instance creation failure causes.

Table 3-40 resource_info

Parameter	Type	Description
specification	String	CBH instance specifications.
order_id	String	Order ID.
resource_id	String	CBH instance ID, in the UUID format.

Parameter	Type	Description
data_disk_size	Number	Size of the data disk for the CBH instance, in TB.
disk_resource_id	Array of strings	ID of the data disk for the CBH instance.

Table 3-41 network

Parameter	Type	Description
vip	String	Floating IP address of the CBH instance (This field is returned when the instance is deployed in primary/standby mode.)
web_port	String	Port used for accessing the CBH instance with a web browser.
public_ip	String	EIP bound to the CBH instance.
public_id	String	ID of the EIP bound to the CBH instance, in the UUID format.
private_ip	String	Private IP address of the CBH instance
vpc_id	String	ID of the VPC where the CBH instance locates.
subnet_id	String	ID of the subnet where the CBH instance locates.
security_group_id	String	ID of the Security group where the CBH instance locates.

Table 3-42 ha_info

Parameter	Type	Description
ha_id	String	IDs of the primary and standby instances.
instance_type	String	Instance type. The value can be: <ul style="list-style-type: none"> • master: Primary instance • slave: Standby instance

Status code: 400

Table 3-43 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-44 Response body parameters

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

Status code: 403

Table 3-45 Response body parameters

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

Status code: 404

Table 3-46 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

None

Example Responses

Status code: 200

Cbh List Instance Success

```
{  
  "total": 1,
```



```

"instance": [ {
  "name": "CBH-e2b4",
  "server_id": "760ae4-9916-436a-8854-837a9ae94b2b",
  "instance_id": "5473",
  "alter_permit": false,
  "enterprise_project_id": "0",
  "period_num": "1,2",
  "start_time": 1692245215000,
  "end_time": 1694966399000,
  "created_time": "2023-08-17 12:05:02.0",
  "update": false,
  "bastion_version": "3.3.49.0",
  "az_info": {
    "region": "cn-north-7",
    "zone": "cn-north-7a",
    "availability_zone_display": "AZ 1",
    "slave_zone": "cn-north-7b",
    "slave_zone_display": "AZ 2"
  },
  "status_info": {
    "status": "ACTIVE",
    "task_status": "NO_TASK",
    "create_instance_status": "NO_TASK",
    "fail_reason": "No FailReason Now",
    "instance_status": "ok",
    "instance_description": ",2023-08-21 15:19:07,{\"d_usage\": \"0.30\", \"m_usage\": \"43.66\", \"c_usage\": \"1.00\", \"session_count\": \"0\""}",
  },
  "resource_info": {
    "specification": "cbh.basic.5",
    "order_id": "CS2308171141G8C14",
    "resource_id": "c7a07a7f-e5ee-49cf-8355-ae46c5a4fcf",
    "data_disk_size": 200,
    "disk_resource_id": [ ]
  },
  "network": {
    "vip": "192.168.0.228",
    "web_port": "443",
    "public_ip": "100.xx.xx.1",
    "public_id": "56220ed7-0f75-4d42-85c4-013d5414c81c",
    "private_ip": "192.168.0.190",
    "vpc_id": "03211ecf-697e-4306-a7a0-6e939bf948de",
    "subnet_id": "dd08a6a9-ced7-484b-ace6-1b821854a772",
    "security_group_id": "02dcf62d-b84d-4a14-aad3-c310f2ceea55"
  },
  "ha_info": {
    "ha_id": "332",
    "instance_type": "master"
  }
}
}
}

```

Status Codes

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

Error Codes

See [Error Codes](#).

3.4.2 Obtaining the Status of a CBH Instance

Function

This API is used to obtain the instance of CBH instances that have not been deleted.

URI

GET /v2/{project_id}/cbs/instance/{server_id}/status

Table 3-47 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".
server_id	Yes	String	CBH instance ID, in UUID format. For details about how to obtain the value, see "Viewing CBH Instance Details" in <i>Cloud Bastion Host User Guide</i> .

Request Parameters

Table 3-48 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Response Parameters

Status code: 200

Table 3-49 Response body parameters

Parameter	Type	Description
name	String	CBH instance name.
status	String	CBH instance status. <ul style="list-style-type: none"> • POWERING_ON: The instance is being started. • POWERING_OFF: The instance is being shut down. • DELETE_WAITE: This instance is waiting to be deleted. • REBOOTING: The instance is being restarting. • RESIZE: The instance is being changed. • UPGRADING: The instance is being upgraded. • FROZEN: The instance is frozen. • ACTIVE: The instance is running.
server_id	String	CBH instance ID, in UUID format.

Status code: 400

Table 3-50 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-51 Response body parameters

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

Status code: 403

Table 3-52 Response body parameters

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

Status code: 404

Table 3-53 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

None

Example Responses

Status code: 200

Search Instance Info Success

```
{  
  "name" : "cbh-test",  
  "status" : "POWERING_ON",  
  "server_id" : "e113077b-xxxx-xxxx-xxxx-be60289cd258"  
}
```

Status Codes

Status Code	Description
200	Search Instance Info Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.4.3 Starting a CBH Instance

Function

This API is used to start a CBH instance.

URI

POST /v2/{project_id}/cbs/instance/start

Table 3-54 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-55 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-56 Request body parameters

Parameter	Mandatory	Type	Description
server_id	Yes	String	Instance ID.

Response Parameters

Status code: 400

Table 3-57 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

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	Not CBH instances found.

Example Requests

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

Example Responses

None

Status Codes

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

Error Codes

See [Error Codes](#).

3.4.4 Stopping a CBH Instance

Function

This API is used to stop a CBH instance.

URI

POST /v2/{project_id}/cbs/instance/stop

Table 3-61 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-62 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-63 Request body parameters

Parameter	Mandatory	Type	Description
server_id	Yes	String	Instance ID.

Response Parameters

Status code: 400

Table 3-64 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-65 Response body parameters

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

Status code: 403

Table 3-66 Response body parameters

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

Status code: 404

Table 3-67 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

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

Example Responses

None

Status Codes

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

Error Codes

See [Error Codes](#).

3.4.5 Restarting a CBH Instance

Function

This API is used to restart a CBH instance.

URI

POST /v2/{project_id}/cbs/instance/reboot

Table 3-68 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-69 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-70 Request body parameters

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

Parameter	Mandatory	Type	Description
reboot_type	Yes	String	Restart mode, which is case insensitive. <ul style="list-style-type: none"> • SOFT: Common restart, stopping the corresponding VM. • HARD: Forcibly restart the VM.

Response Parameters

Status code: 400

Table 3-71 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-72 Response body parameters

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

Status code: 403

Table 3-73 Response body parameters

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

Status code: 404

Table 3-74 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

```
{  
  "server_id" : "c7277d87-5a0d-4cfc-a418-97acb567cf29",  
  "reboot_type" : "SOFT"  
}
```

Example Responses

None

Status Codes

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

Error Codes

See [Error Codes](#).

3.4.6 Upgrading a CBH Instance

Function

This API is used to upgrade a CBH instance.

URI

POST /v2/{project_id}/cbs/instance/upgrade

Table 3-75 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-76 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-77 Request body parameters

Parameter	Mandatory	Type	Description
server_id	Yes	String	Instance ID.
upgrade_time	Yes	Long	Scheduled upgrade time, which must be 24 hours later than the current time.
cancel	No	Boolean	Whether to cancel the scheduled upgrade task. Once a task starts, it cannot be canceled. <ul style="list-style-type: none"> • true: Cancel • false: No impact

Response Parameters

Status code: 400

Table 3-78 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-79 Response body parameters

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

Status code: 403

Table 3-80 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	The current version is the latest. There is no need to upgrade. The agent is not started.

Status code: 404

Table 3-81 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

```
{
  "server_id" : "c7277d87-5a0d-4cfc-a418-97acb567cf29",
  "upgrade_time" : 1702974655000
}
```

Example Responses

None

Status Codes

Status Code	Description
200	Upgrade Cbh Instance Success
400	Bad Request
401	Unauthorized
403	The current version is the latest. There is no need to upgrade./The agent is not started.
404	Not Found

Error Codes

See [Error Codes](#).

3.4.7 Log In to a CBH Instance Console as an IAM User

Function

This API is used to log in to a CBH instance console as an IAM user.

URI

POST /v2/{project_id}/cbs/instance/login

Table 3-82 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-83 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-84 Request body parameters

Parameter	Mandatory	Type	Description
server_id	Yes	String	Instance ID.

Response Parameters

Status code: 200

Table 3-85 Response body parameters

Parameter	Type	Description
login_url	String	CBH login link.

Status code: 400

Table 3-86 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-87 Response body parameters

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

Status code: 403

Table 3-88 Response body parameters

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

Status code: 404

Table 3-89 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

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

Example Responses

Status code: 200

Cbh Login Instance Success

```
{
  "login_url" : "https://x.x.x.x:443?cbhinfo=xxxx"
}
```

Status Codes

Status Code	Description
200	Cbh Login Instance Success

Status Code	Description
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.4.8 Resetting the admin Password of a CBH Instance

Function

This API is used to reset the password of user admin, which is used for logging in to the CBH instance over a web client.

URI

PUT /v2/{project_id}/cbs/instance/password

Table 3-90 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-91 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-92 Request body parameters

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

Response Parameters

Status code: 400

Table 3-93 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-94 Response body parameters

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

Status code: 403

Table 3-95 Response body parameters

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

Status code: 404

Table 3-96 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

```
{  
  "new_password" : "xxxxxxxx",  
  "server_id" : "6e22aced-xxxx-xxxx-xxxx-4796fbe9fc23"  
}
```

Example Responses

None

Status Codes

Status Code	Description
200	Reset Instance Password Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.4.9 Resetting the Login Mode for User Admin for a CBH Instance

Function

This API is used to reset the login mode for user Admin for a CBH instance.

URI

PUT /v2/{project_id}/cbs/instance/login-method

Table 3-97 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-98 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-99 Request body parameters

Parameter	Mandatory	Type	Description
server_id	Yes	String	Instance ID.

Response Parameters

Status code: 400

Table 3-100 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-101 Response body parameters

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

Status code: 403

Table 3-102 Response body parameters

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

Status code: 404

Table 3-103 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

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

Example Responses

None

Status Codes

Status Code	Description
200	Reset Instance LoginMethod Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.4.10 Obtaining an O&M URL

Function

This API is used to obtain an O&M URL.

URI

GET /v2/{project_id}/cbs/instance/get-om-url

Table 3-104 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Table 3-105 Query Parameters

Parameter	Mandatory	Type	Description
server_id	Yes	String	ID of the server where the CBH instance is deployed.
ip_address	Yes	String	IP address of the server managed by the CBH instance.
host_account_name	Yes	String	Account that the managed server belongs to.

Request Parameters

Table 3-106 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Response Parameters

Status code: 200

Table 3-107 Response body parameters

Parameter	Type	Description
state	String	Status of the task for obtaining an O&M URL. #SUCCESS(0): The URL has been obtained. If the status is not SUCCESS, the task failed. Locate the cause by referring to the following error codes and the corresponding descriptions. IAM_USER_CONFLICT(1016): There were IAM user conflicts. HOST_NOT_MANAGE(1): The server requested has not be managed by CBH. HOST_ACCOUNT_NOT_EXIST(553): The account for logging in to the server is unavailable. IAM_USER_NO_PERMISSION(901): IAM user does not have the permission to maintain the server. CUR_VERSION_NOT_SUPPORT_OPERATION(9001): The current service version does not support the task. INS_WHITE_LIST_INITIALIZING(9002) : The instance trustlist is being initialized. Please try again later. UNKNOWN_ERROR(9003): Unknown error
description	String	Message displayed when the task for obtaining an URL fails.
login_url	String	ECS O&M login address

Status code: 400

Table 3-108 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-109 Response body parameters

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

Status code: 403

Table 3-110 Response body parameters

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

Status code: 404

Table 3-111 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

None

Example Responses

Status code: 200

Get HOST O&M URL Success

```
{
  "state": "SUCCESS",
  "login_url": "xxxxxx"
}
```

Status Codes

Status Code	Description
200	Get HOST O&M URL Success

Status Code	Description
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.4.11 Deleting a Faulty CBH Instance

Function

This API is used to delete a faulty CBH instance.

URI

DELETE /v2/{project_id}/cbs/instance

Table 3-112 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Table 3-113 Query Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	Number	ID of the faulty CBH instance you want to delete.

Request Parameters

Table 3-114 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Response Parameters

Status code: 400

Table 3-115 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-116 Response body parameters

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

Status code: 403

Table 3-117 Response body parameters

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

Status code: 404

Table 3-118 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

None

Example Responses

None

Status Codes

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

Error Codes

See [Error Codes](#).

3.4.12 Changing a CBH Instance

Function

This API is used to change a CBH instance.

URI

PUT /v2/{project_id}/cbs/instance

Table 3-119 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-120 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-121 Request body parameters

Parameter	Mandatory	Type	Description
server_id	Yes	String	CBH instance ID, in UUID format.
new_resource_spec_code	No	String	ID of the specifications of the CBH instance to be changed, for example: <ul style="list-style-type: none"> ● cbh.basic.50 ● cbh.enhance.50 For details, see "Querying CBH Instance Specifications."
attach_disk_size	No	Integer	Additional disk size. Unit: TB NOTE Note: The size of the additional disk and the built-in disk cannot exceed 300 TB.

Parameter	Mandatory	Type	Description
is_auto_pay	No	Integer	<p>Whether an order is automatically paid from your Huawei Cloud account.</p> <ul style="list-style-type: none"> • 1: Yes. (Discounts and coupons are automatically selected. The fee will be automatically deducted from your Huawei Cloud account.) If the automatic payment fails, an unpaid order will be generated, and you need to manually complete the payment. (During manual payment, you can still modify the discounts and coupons that were automatically selected.) • 0: No. (The customer needs to manually pay for the bill. Discounts and coupons can be used.) <p>The default value is 0.</p>

Response Parameters

Status code: 200

Table 3-122 Response body parameters

Parameter	Type	Description
order_id	String	Order ID.

Status code: 400

Table 3-123 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-124 Response body parameters

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

Status code: 403

Table 3-125 Response body parameters

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

Status code: 404

Table 3-126 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

```
{  
  "server_id" : "xxxxxx",  
  "new_resource_spec_code" : "cbh.basic.10",  
  "attach_disk_size" : 1,  
  "is_auto_pay" : 1  
}
```

Example Responses

Status code: 200

Create Alter Task Success

```
{  
  "order_id" : "CS22xxx82xx5AssGxxx"  
}
```


Status Codes

Status Code	Description
200	Create Alter Task Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.4.13 Rolling Back a CBH Instance

Function

This API is used to roll back a CBH instance after an upgrade.

URI

POST /v2/{project_id}/cbs/instance/rollback

Table 3-127 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-128 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-129 Request body parameters

Parameter	Mandatory	Type	Description
server_id	Yes	String	ID of the instance you want to roll back.

Response Parameters

Status code: 400

Table 3-130 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-131 Response body parameters

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

Status code: 403

Table 3-132 Response body parameters

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

Status code: 404

Table 3-133 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

```
{  
  "server_id" : "e113077b-xxxx-xxxx-xxxx-be60289cd258"  
}
```

Example Responses

None

Status Codes

Status Code	Description
200	Upgrade Rollback Cbh Instance Success
400	Bad Request
401	Unauthorized
403	Access denied.
404	Not Found

Error Codes

See [Error Codes](#).

3.4.14 Logging In to a CBH Instance Console as User admin

Function

This API is used to log in to a CBH instance console as user admin.

URI

GET /v2/{project_id}/cbs/instances/{server_id}/admin-url

Table 3-134 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".
server_id	Yes	String	CBH instance ID, in UUID format. For details about how to obtain the value, see "Viewing CBH Instance Details" in <i>Cloud Bastion Host User Guide</i> .

Request Parameters

Table 3-135 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Response Parameters

Status code: 200

Table 3-136 Response body parameters

Parameter	Type	Description
admin_url	String	URL for logging in to a CBH instance as user admin.

Status code: 400

Table 3-137 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-138 Response body parameters

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

Status code: 403

Table 3-139 Response body parameters

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

Status code: 404

Table 3-140 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

None

Example Responses

Status code: 200

Cbh Login Instance admin Success

```
{
  "admin_url" : "https://x.x.x.x:443?cbhinfo=xxxx"
}
```

Status Codes

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

Error Codes

See [Error Codes](#).

3.4.15 Changing the Type of a Single-Node CBH Instance

Function

This API is used to change the type of a single-node CBH instance.

URI

PUT /v2/{project_id}/cbs/instance/type

Table 3-141 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Table 3-142 Query Parameters

Parameter	Mandatory	Type	Description
server_id	Yes	String	Instance ID.
availability_zone	No	String	AZ name. For details, see "Obtaining AZs Where CBH Is Available."
is_auto_pay	No	Integer	Whether an order is automatically paid from your Huawei Cloud account. <ul style="list-style-type: none"> 1: Yes. (Discounts and coupons are automatically selected. The fee will be automatically charged to your Huawei Cloud account.) If the automatic payment fails, an unpaid order will be generated, and you need to manually complete the payment. (During the manual payment, you can still modify the discounts and coupons that were automatically selected.) 0: No. (You need to manually pay for the bill. Discounts and coupons can be used.) The default value is 0 .

Request Parameters

Table 3-143 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Response Parameters

Status code: 200

Table 3-144 Response body parameters

Parameter	Type	Description
order_id	String	Order ID.

Status code: 400

Table 3-145 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-146 Response body parameters

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

Status code: 403

Table 3-147 Response body parameters

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

Status code: 404

Table 3-148 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

None

Example Responses

Status code: 200

Change Single-Node Instance type to HA success

```
{  
  "order_id" : "CS22xxx82xx5AssGxxx"  
}
```

Status Codes

Status Code	Description
200	Change Single-Node Instance type to HA success
400	Bad Request
401	Unauthorized
403	Access denied.
404	Not Found

Error Codes

See [Error Codes](#).

3.5 Lifecycle Management

3.5.1 Creating a CBH Instance

Function

Creating a CBH Instance

URI

POST /v2/{project_id}/cbs/instance

Table 3-149 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-150 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-151 Request body parameters

Parameter	Mandatory	Type	Description
specification	Yes	String	ID of the specification of the CBH instance to be created, for example: <ul style="list-style-type: none"> cbh.basic.50 cbh.enhance.50 For details, see "Querying CBH Instance Specifications."

Parameter	Mandatory	Type	Description
instance_name	Yes	String	CBH instance name. The requirements are as follows: The parameter value consists of 1 to 64 characters, including letters, digits, underscores (_), and hyphens (-). Example: CBH-6b8e
password	Yes	String	Password for logging in to the CBH instance. The password can contain 8 to 32 characters, excluding amdin , nidma , and their uppercase letters. The password must contain at least three types of the following characters: uppercase letters, lowercase letters, digits, and special characters (!@\$%^&_+=+[{ }],./?~#*). The password cannot contain more than two consecutive identical characters (case-sensitive).
region	Yes	String	ID of the site where the CBH instance was created. For details, see "Querying CBH Instance Specifications."
availability_zone	Yes	String	Name of the AZ where the CBH instance is located. (In active/standby mode, the AZ where the active instance locates is required.) For details, see "Obtaining AZs Where CBH Is Available."
slave_availability_zone	No	String	Name of the AZ where the standby CBH instance is located. (This parameter is not required when only a single-node instance is created.) For details, see "Obtaining AZs Where CBH Is Available."
charging_mode	Yes	Integer	Billing mode. <ul style="list-style-type: none"> 0: yearly/monthly billing mode.

Parameter	Mandatory	Type	Description
period_type	No	Integer	Subscription type. (Mandatory for the yearly/monthly billing mode) <ul style="list-style-type: none"> • 2: month • 3: year
period_num	No	Integer	Number of subscription periods. (Mandatory for the yearly/monthly billing mode) <ul style="list-style-type: none"> • If period_type is set to 2 (month), the value ranges from 1 to 9. • If period_type is set to 3 (year), the value ranges from 1 to 10.
is_auto_renew	No	Integer	Whether auto-renewal is enabled. <ul style="list-style-type: none"> • 1: Auto-renewal is enabled. • 0: Auto-renewal is disabled. The default value is 0 .
is_auto_pay	No	Integer	Whether an order is automatically paid from your Huawei Cloud account. <ul style="list-style-type: none"> • 1: Yes. (Discounts and coupons are automatically selected. The fee will be automatically deducted from your Huawei Cloud account.) If the automatic payment fails, an unpaid order will be generated, and you need to manually complete the payment. (During manual payment, you can still modify the discounts and coupons that were automatically selected.) • 0: No. (The customer needs to manually pay for the bill. Discounts and coupons can be used.) The default value is 0 .

Parameter	Mandatory	Type	Description
network	Yes	NetworkInfoCreate object	The network information required for changing the VPC the CBH instance belongs to.
ipv6_enable	No	Boolean	Whether the CBH instance supports IPv6 addresses. The default value is false .
enterprise_project_id	No	String	Enterprise project ID. The default value is 0 .
attach_disk_size	No	Integer	Additional disk size. Unit: TB NOTE The total size of the additional disk and the built-in disk cannot exceed 300 TB.
tags	No	Array of ResourceTag objects	Tag details.

Table 3-152 NetworkInfoCreate

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 management console or by following the instructions provided in "Querying VPCs" in <i>Virtual Private Cloud API Reference</i> . Example: 03211ecf-xxxx-4306-xxxx-6e939bfxxxxx
subnet_id	Yes	String	Subnet ID, which consists of letters, digits, and underscores (_).
public_ip	Yes	PublicIp object	EIP bound to the CBH instance. The value can be null.
security_groups	Yes	Array of SecurityGroup objects	Security group information.

Parameter	Mandatory	Type	Description
private_ip	No	PrivateIp object	EIP bound to the CBH instance.

Table 3-153 PublicIp

Parameter	Mandatory	Type	Description
id	No	String	ID of the EIP.
public_eip	No	String	Elastic IP address.

Table 3-154 SecurityGroup

Parameter	Mandatory	Type	Description
id	Yes	String	ID of the security group that the CBH instance belongs to. The value consists of letters, digits, and underscores (_).

Table 3-155 PrivateIp

Parameter	Mandatory	Type	Description
ip	Yes	String	Private IP address.
slave_ip	No	String	Private IP address of standby instance.
floating_ip	No	String	Floating IP address.

Table 3-156 ResourceTag

Parameter	Mandatory	Type	Description
key	Yes	String	Tag key. A tag key can contain up to 128 characters.
value	Yes	String	Tag value. Each value can contain a maximum of 255 characters.

Response Parameters

Status code: 200

Table 3-157 Response body parameters

Parameter	Type	Description
order_id	String	Order ID.

Status code: 400

Table 3-158 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-159 Response body parameters

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

Status code: 403

Table 3-160 Response body parameters

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

Status code: 404

Table 3-161 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

```
{
  "specification": "cbh.basic.50",
  "instance_name": "CBH-155f",
  "password": "1xxx6xxxx",
  "region": "cn-north-4",
  "availability_zone": "cn-north-4a",
  "slave_availability_zone": "cn-north-4a",
  "charging_mode": 0,
  "period_type": 2,
  "period_num": 1,
  "is_auto_renew": 0,
  "is_auto_pay": 0,
  "ipv6_enable": false,
  "enterprise_project_id": "0",
  "attach_disk_size": 1,
  "tags": [ {
    "key": "key",
    "value": "value"
  } ],
  "network": {
    "vpc_id": "279e8217-xxxx-4d83-xxxx-b8f14d47170b",
    "subnet_id": "a86217e6-xxxx-4803-xxxx-b57da681xxxx",
    "private_ip": {
      "ip": "123.xxx.41.xx",
      "slave_ip": "123.xxx.41.xx",
      "floating_ip": "123.xxx.41.xx"
    },
    "public_ip": {
      "id": "cfcab481-xxxx-4e23-xxxx-d6cdd0efxxxx",
      "public_eip": "123.xxx.41.xx"
    },
    "security_groups": [ {
      "id": "1e10bc4f-xxxx-4452-xxxx-8ddb4348xxx"
    } ]
  }
}
```

Example Responses

Status code: 200

Cbh Create Instance Success

```
{
  "order_id": "CS22xxx82xx5AssGxxx"
}
```


Status Codes

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

Error Codes

See [Error Codes](#).

3.6 Network Management

3.6.1 Binding an EIP to a CBH Instance

Function

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

URI

POST /v2/{project_id}/cbs/instance/{server_id}/eip/bind

Table 3-162 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".
server_id	Yes	String	CBH instance ID, in UUID format. For details about how to obtain the value, see "Viewing CBH Instance Details" in <i>Cloud Bastion Host User Guide</i> .

Request Parameters

Table 3-163 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-164 Request body parameters

Parameter	Mandatory	Type	Description
publicip_id	Yes	String	EIP ID, in UUID format.

Response Parameters

Status code: 400

Table 3-165 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-166 Response body parameters

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

Status code: 403

Table 3-167 Response body parameters

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

Status code: 404

Table 3-168 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

```
{  
  "publicip_id" : "59f0dd3c-xxxx-xxxx-xxxx-9ffb8ea5f0cd"  
}
```

Example Responses

None

Status Codes

Status Code	Description
200	Install Instance Eip Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.6.2 Unbinding an EIP from a CBH Instance

Function

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

URI

POST /v2/{project_id}/cbs/instance/{server_id}/eip/unbind

Table 3-169 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".
server_id	Yes	String	CBH instance ID, in UUID format. For details about how to obtain the value, see "Viewing CBH Instance Details" in <i>Cloud Bastion Host User Guide</i> .

Request Parameters

Table 3-170 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-171 Request body parameters

Parameter	Mandatory	Type	Description
publicip_id	Yes	String	EIP ID, in UUID format.

Response Parameters

Status code: 400

Table 3-172 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-173 Response body parameters

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

Status code: 403

Table 3-174 Response body parameters

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

Status code: 404

Table 3-175 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

```
{  
  "publicip_id" : "59f0dd3c-xxxx-xxxx-xxxx-9ffb8ea5f0cd"  
}
```

Example Responses

None

Status Codes

Status Code	Description
200	Uninstall Instance Eip Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.6.3 Changing the Security Group for a CBH Instance

Function

This API is used to change the security group for a CBH instance.

URI

PUT /v2/{project_id}/cbs/instance/{server_id}/security-groups

Table 3-176 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".
server_id	Yes	String	CBH instance ID, in UUID format. For details about how to obtain the value, see "Viewing CBH Instance Details" in <i>Cloud Bastion Host User Guide</i> .

Request Parameters

Table 3-177 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-178 Request body parameters

Parameter	Mandatory	Type	Description
security_groups	Yes	Array of strings	Security group information.

Response Parameters

Status code: 400

Table 3-179 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-180 Response body parameters

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

Status code: 403

Table 3-181 Response body parameters

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

Status code: 404

Table 3-182 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

```
{  
  "security_groups" : [ "4967c8c3-xxxx-xxxx-xxxx-ee9638683471", "a78a0603-xxxx-xxxx-xxxx-  
e1313589137e" ]  
}
```

Example Responses

None

Status Codes

Status Code	Description
200	Change Instance SecurityGroups Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.6.4 Changing the VPC A CBH Instance Belongs To

Function

This API is used to change the VPC a CBH instance belongs to.

URI

PUT /v2/{project_id}/cbs/instance/vpc

Table 3-183 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-184 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-185 Request body parameters

Parameter	Mandatory	Type	Description
server_id	Yes	String	ID of the instance for which you want to change the VPC it belongs to.
network	Yes	NetworkInfo Create object	The network information required for changing the VPC the CBH instance belongs to.

Table 3-186 NetworkInfoCreate

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 management console or by following the instructions provided in "Querying VPCs" in <i>Virtual Private Cloud API Reference</i> . Example: 03211ecf-xxxx-4306-xxxx-6e939bfxxxxx
subnet_id	Yes	String	Subnet ID, which consists of letters, digits, and underscores (_).
public_ip	Yes	PublicIp object	EIP bound to the CBH instance. The value can be null.
security_groups	Yes	Array of SecurityGroup objects	Security group information.
private_ip	No	PrivateIp object	EIP bound to the CBH instance.

Table 3-187 PublicIp

Parameter	Mandatory	Type	Description
id	No	String	ID of the EIP.
public_eip	No	String	Elastic IP address.

Table 3-188 SecurityGroup

Parameter	Mandatory	Type	Description
id	Yes	String	ID of the security group that the CBH instance belongs to. The value consists of letters, digits, and underscores (_).

Table 3-189 Privatelp

Parameter	Mandatory	Type	Description
ip	Yes	String	Private IP address.
slave_ip	No	String	Private IP address of standby instance.
floating_ip	No	String	Floating IP address.

Response Parameters

Status code: 400

Table 3-190 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-191 Response body parameters

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

Status code: 403

Table 3-192 Response body parameters

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

Status code: 404

Table 3-193 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

```
{
  "server_id" : "0f2c69d1-e420-4ae1-9b43-ab8699883678",
  "network" : {
    "vpc_id" : "760071b3-34a3-4359-bf18-3af24e77c1cf",
    "subnet_id" : "90b6be71-e72a-4d5a-8838-5924bce3c583",
    "private_ip" : {
      "ip" : "192.168.0.3",
      "slave_ip" : null,
      "floating_ip" : null
    },
    "public_ip" : null,
    "security_groups" : [ {
      "id" : "21321412321321321"
    } ]
  }
}
```

Example Responses

None

Status Codes

Status Code	Description
200	Switch Cbh Instance Vpc Success
400	Bad Request
401	Unauthorized
403	Access denied.
404	Not Found

Error Codes

See [Error Codes](#).

3.7 Agency Authorization

3.7.1 Authorizing CBH

Function

This API is used to authorize CBH.

URI

GET /v2/{project_id}/cbs/agency/authorization

Table 3-194 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-195 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Response Parameters

Status code: 200

Table 3-196 Response body parameters

Parameter	Type	Description
authorization	AgencyAuthorize Info object	List of CBH permissions managed in Cloud Secret Management Service (CSMS) and Key Management Service (KMS).

Table 3-197 AgencyAuthorizeInfo

Parameter	Type	Description
csms	Boolean	Credential management permission information.
kms	Boolean	Key management permission information.

Status code: 400

Table 3-198 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-199 Response body parameters

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

Status code: 403

Table 3-200 Response body parameters

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

Status code: 404

Table 3-201 Response body parameters

Parameter	Type	Description
error_code	String	Error code

Parameter	Type	Description
error_description	String	Not CBH instances found.

Example Requests

None

Example Responses

Status code: 200

CBH authorization details queried

```
{  
  "authorization" : {  
    "csms" : true,  
    "kms" : true  
  }  
}
```

Status Codes

Status Code	Description
200	CBH authorization details queried
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.7.2 Creating or Canceling an Agency Authorization for CBH.

Function

This API is used to create or cancel an agency authorization for CBH.

URI

POST /v2/{project_id}/cbs/agency/authorization

Table 3-202 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-203 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-204 Request body parameters

Parameter	Mandatory	Type	Description
authorization	Yes	AgencyAuthorizeInfo object	List of CBH permissions managed in Cloud Secret Management Service (CSMS) and Key Management Service (KMS).

Table 3-205 AgencyAuthorizeInfo

Parameter	Mandatory	Type	Description
csms	Yes	Boolean	Credential management permission information.
kms	Yes	Boolean	Key management permission information.

Response Parameters

Status code: 400

Table 3-206 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-207 Response body parameters

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

Status code: 403

Table 3-208 Response body parameters

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

Status code: 404

Table 3-209 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

```
{  
  "authorization" : {  
    "csms" : true,  
    "kms" : true  
  }  
}
```

```
}  
}
```

Example Responses

None

Status Codes

Status Code	Description
200	Authorize Csms And Kms Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.8 Label Management

3.8.1 Querying Resource Tags of an Account in a Project

Function

This API is used to query the resource tags of an account in a project.

URI

GET /v2/{project_id}/cbs/instance/tags

Table 3-210 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-211 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Response Parameters

Status code: 200

Table 3-212 Response body parameters

Parameter	Type	Description
tags	Array of Tags objects	Tag list.

Table 3-213 Tags

Parameter	Type	Description
key	String	Tag key. NOTE Note: <ul style="list-style-type: none"> • A key can contain 1 to 128 characters. • A key can contain UTF-8 letters, digits, spaces, and the following characters: _ . : = + - @ • Do not enter labels starting with sys, which are system labels. • Recommended regular expression: $^((?!sys)[\p{L}\p{Z}\p{N}_.:+=\-\@]*)$

Parameter	Type	Description
values	Array of strings	<p>List of tag values.</p> <p>NOTE Note:</p> <ul style="list-style-type: none"> • A value can contain 0 to 255 characters. • Can contain UTF-8 letters, digits, spaces, and the following characters: . : / = + - @ <i>Recommended regular expression:</i> <code>^([\p{L} \p{Z} \p{N}:/=+-@]*)\$</code> • The value can be empty or null. • The value of a predefined tag cannot be empty or null.

Status code: 400

Table 3-214 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-215 Response body parameters

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

Status code: 403

Table 3-216 Response body parameters

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

Status code: 404

Table 3-217 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

None

Example Responses

Status code: 200

Show Project Tags Success

```
{  
  "tags": [ {  
    "key": "cbh-test",  
    "values": [ "test1", "test2" ]  
  }, {  
    "key": "cbh-test1",  
    "values": [ "test3", "test4" ]  
  } ]  
}
```

Status Codes

Status Code	Description
200	Show Project Tags Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.8.2 Querying the Tag Information of a CBH Instance

Function

This API is used to query the tag information of a CBH instance.

URI

GET /v2/{project_id}/cbs/instance/{resource_id}/tags

Table 3-218 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".
resource_id	Yes	String	Resource ID. Obtain its value by calling the list API.

Request Parameters

Table 3-219 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Response Parameters

Status code: 200

Table 3-220 Response body parameters

Parameter	Type	Description
tags	Array of ResourceTag objects	Tag list.

Table 3-221 ResourceTag

Parameter	Type	Description
key	String	Tag key. A tag key can contain up to 128 characters.
value	String	Tag value. Each value can contain a maximum of 255 characters.

Status code: 400

Table 3-222 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-223 Response body parameters

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

Status code: 403

Table 3-224 Response body parameters

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

Status code: 404

Table 3-225 Response body parameters

Parameter	Type	Description
error_code	String	Error code

Parameter	Type	Description
error_description	String	Not CBH instances found.

Example Requests

None

Example Responses

Status code: 200

Show ResourceIdTags Success

```
{  
  "tags": [ {  
    "key": "1",  
    "value": "2"  
  } ]  
}
```

Status Codes

Status Code	Description
200	Show ResourceIdTags Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.8.3 Counting the Number of Instances with a Specified Tag

Function

This API is used to count the number of instances with a specified tag.

URI

POST /v2/{project_id}/cbs/instance/count

Table 3-226 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-227 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-228 Request body parameters

Parameter	Mandatory	Type	Description
without_any_tag	No	Boolean	Specifies any tag that is not contained. If this parameter is set to true , all resources without tags are queried. In this case, the tags, tags_any, not_tags, and not_tags_any fields are ignored.

Parameter	Mandatory	Type	Description
tags	No	Array of Tags objects	<p>The resources to be queried contain tags listed in tags. Each resource to be queried contains a maximum of 50 keys. Each tag key can have a maximum of 10 tag values. The tag value corresponding to each tag key can be an empty array but the structure cannot be missing.</p> <p>The key must be unique, and the values of the same key must be unique. Resources containing all tags are returned. Keys in this list are in AND relationship.</p> <p>While values in the key-value pairs are in OR relationship.</p> <p>If no tag filtering condition is specified, full data is returned.</p>
tags_any	No	Array of Tags objects	<p>The resources to be queried contain any tags listed in tags_any. Each resource to be queried contains a maximum of 50 keys. Each tag key can have a maximum of 10 tag values. The tag value corresponding to each tag key can be an empty array but the structure cannot be missing. Each tag key must be unique, and each value of the same key must be unique.</p> <p>The response returns resources containing the tags in this list. Keys in this list are in an OR relationship and values in each key-value structure are also in an OR relationship.</p> <p>If no tag filtering condition is specified, full data is returned.</p>

Parameter	Mandatory	Type	Description
not_tags	No	Array of Tags objects	<p>The resources to be queried do not contain tags listed in not_tags. Each resource to be queried contains a maximum of 50 keys. Each tag key can have a maximum of 10 tag values. The tag value corresponding to each tag key can be an empty array but the structure cannot be missing. Each tag key must be unique, and each value of the same key must be unique.</p> <p>The response returns resources containing no tags in this list. Keys in this list are in an AND relationship while values in each key-value structure are in an OR relationship.</p> <p>If no filtering condition is specified, full data is returned.</p>
not_tags_any	No	Array of Tags objects	<p>The resources to be queried do not contain any tags listed in not_tags_any. Each resource to be queried contains a maximum of 50 keys. Each tag key can have a maximum of 10 tag values. The tag value corresponding to each tag key can be an empty array but the structure cannot be missing. Each tag key must be unique, and each value of the same key must be unique.</p> <p>The response returns resources containing no tag in this list. Keys in this list are in the OR relationship and values in each key-value structure are also in the OR relationship.</p> <p>If no tag filtering criteria is specified, full data is returned.</p>

Parameter	Mandatory	Type	Description
sys_tags	No	Array of Tags objects	<p>Only users with the op_service permission can use this field to filter resources.</p> <p>Only one tag structure is contained when this API is called by Tag Management Service (TMS).</p> <p>key: _sys_enterprise_project_id value: Enterprise project ID list.</p> <p>Currently, key contains only one value. 0 indicates the default enterprise project.</p> <p>sys_tags and tenant tag filtering conditions (without_any_tag, tags, tags_any, not_tags, and not_tags_any) cannot be used at the same time.</p> <p>If sys_tags is not specified, filter the resources with other tag filtering criteria. If no tag filtering criteria is specified, full data is returned.</p>
matches	No	Array of Match objects	<p>Search field. The tag key is the field to be matched, for example, resource_name.</p> <p>The value is a matched value. The key is a fixed dictionary value and cannot be a duplicate key or unsupported key.</p> <p>Check whether fuzzy match is required based on the key value. For example, if key is set to resource_name, fuzzy search (case-insensitive) is performed by default. If value is empty, exact match is performed. Most services do not have resources without names. In this case, an empty list is returned.</p> <p>resource_id indicates exact match. Only resource_name is used now.</p>

Table 3-229 Tags

Parameter	Mandatory	Type	Description
key	Yes	String	<p>Tag key.</p> <p>NOTE Note:</p> <ul style="list-style-type: none"> • A key can contain 1 to 128 characters. • A key can contain UTF-8 letters, digits, spaces, and the following characters: <code>_ . : = + - @</code> • Do not enter labels starting with sys, which are system labels. • Recommended regular expression: <code>^(?!sys)[\p{L}\p{Z}\p{N}_.:=-\@]*\$</code>
values	Yes	Array of strings	<p>List of tag values.</p> <p>NOTE Note:</p> <ul style="list-style-type: none"> • A value can contain 0 to 255 characters. • Can contain UTF-8 letters, digits, spaces, and the following characters: <code>. : / = + - @</code> <i>Recommended regular expression: <code>^([\p{L} \p{Z} \p{N}]:./=-\@]*)\$</code></i> • The value can be empty or null. • The value of a predefined tag cannot be empty or null.

Table 3-230 Match

Parameter	Mandatory	Type	Description
key	Yes	String	<p>Tag key. Currently, only resource_name is supported. Other key values will be available later.</p>
value	Yes	String	<p>Value. Each value can contain a maximum of 255 Unicode characters. The character set is not verified.</p>

Response Parameters

Status code: 200

Table 3-231 Response body parameters

Parameter	Type	Description
total_count	Integer	Total records.

Status code: 400

Table 3-232 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-233 Response body parameters

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

Status code: 403

Table 3-234 Response body parameters

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

Status code: 404

Table 3-235 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

```
{
  "matches": [ {
    "key": "resource_name",
    "value": "resource1"
  } ],
  "not_tags": [ {
    "key": "key1",
    "values": [ "*"value1", "value2" ]
  } ],
  "tags": [ {
    "key": "key1",
    "values": [ "*"value1", "value2" ]
  } ],
  "tags_any": [ {
    "key": "key1",
    "values": [ "value1", "value2" ]
  } ],
  "not_tags_any": [ {
    "key": "key1",
    "values": [ "value1", "value2" ]
  } ],
  "sys_tags": [ {
    "key": "_sys_enterprise_project_id",
    "values": [ "5aa119a8-d25b-45a7-8d1b-88e127885635" ]
  } ]
}
```

Example Responses

Status code: 200

Show Project Tags Success

```
{
  "total_count": 1000
}
```

Status Codes

Status Code	Description
200	Show Project Tags Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Error Codes

See [Error Codes](#).

3.8.4 Querying Instances by Tags

Function

This API is used to query instance by tags.

URI

POST /v2/{project_id}/cbs/instance/filter

Table 3-236 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".

Request Parameters

Table 3-237 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."
limit	No	String	Specifies the number of records to be queried. This parameter is not available when action is set to count. If action is set to filter, the default value is 1000. The maximum value is 1000, and the minimum value is 1.

Parameter	Mandatory	Type	Description
offset	No	String	Index position. This parameter is not available when action is set to count . If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. If action is set to filter , the value of offset is 0 by default, indicating that the query starts from the first piece of data. The offset value must be a number and cannot be a negative number.

Table 3-238 Request body parameters

Parameter	Mandatory	Type	Description
without_any_tag	No	Boolean	Specifies any tag that is not contained. If this parameter is set to true , all resources without tags are queried. In this case, the tags, tags_any, not_tags, and not_tags_any fields are ignored.
tags	No	Array of Tags objects	The resources to be queried contain tags listed in tags. Each resource to be queried contains a maximum of 50 keys. Each tag key can have a maximum of 10 tag values. The tag value corresponding to each tag key can be an empty array but the structure cannot be missing. The key must be unique, and the values of the same key must be unique. Resources containing all tags are returned. Keys in this list are in AND relationship. While values in the key-value pairs are in OR relationship. If no tag filtering condition is specified, full data is returned.

Parameter	Mandatory	Type	Description
tags_any	No	Array of Tags objects	<p>The resources to be queried contain any tags listed in tags_any. Each resource to be queried contains a maximum of 50 keys. Each tag key can have a maximum of 10 tag values. The tag value corresponding to each tag key can be an empty array but the structure cannot be missing. Each tag key must be unique, and each value of the same key must be unique.</p> <p>The response returns resources containing the tags in this list. Keys in this list are in an OR relationship and values in each key-value structure are also in an OR relationship.</p> <p>If no tag filtering condition is specified, full data is returned.</p>
not_tags	No	Array of Tags objects	<p>The resources to be queried do not contain tags listed in not_tags. Each resource to be queried contains a maximum of 50 keys. Each tag key can have a maximum of 10 tag values. The tag value corresponding to each tag key can be an empty array but the structure cannot be missing. Each tag key must be unique, and each value of the same key must be unique.</p> <p>The response returns resources containing no tags in this list. Keys in this list are in an AND relationship while values in each key-value structure are in an OR relationship.</p> <p>If no filtering condition is specified, full data is returned.</p>

Parameter	Mandatory	Type	Description
not_tags_any	No	Array of Tags objects	<p>The resources to be queried do not contain any tags listed in not_tags_any. Each resource to be queried contains a maximum of 50 keys. Each tag key can have a maximum of 10 tag values. The tag value corresponding to each tag key can be an empty array but the structure cannot be missing. Each tag key must be unique, and each value of the same key must be unique.</p> <p>The response returns resources containing no tag in this list. Keys in this list are in the OR relationship and values in each key-value structure are also in the OR relationship.</p> <p>If no tag filtering criteria is specified, full data is returned.</p>
sys_tags	No	Array of Tags objects	<p>Only users with the op_service permission can use this field to filter resources.</p> <p>Only one tag structure is contained when this API is called by Tag Management Service (TMS).</p> <p>key: _sys_enterprise_project_id value: Enterprise project ID list.</p> <p>Currently, key contains only one value. 0 indicates the default enterprise project.</p> <p>sys_tags and tenant tag filtering conditions (without_any_tag, tags, tags_any, not_tags, and not_tags_any) cannot be used at the same time.</p> <p>If sys_tags is not specified, filter the resources with other tag filtering criteria. If no tag filtering criteria is specified, full data is returned.</p>

Parameter	Mandatory	Type	Description
matches	No	Array of Match objects	<p>Search field. The tag key is the field to be matched, for example, resource_name.</p> <p>The value is a matched value. The key is a fixed dictionary value and cannot be a duplicate key or unsupported key.</p> <p>Check whether fuzzy match is required based on the key value. For example, if key is set to resource_name, fuzzy search (case-insensitive) is performed by default. If value is empty, exact match is performed. Most services do not have resources without names. In this case, an empty list is returned.</p> <p>resource_id indicates exact match. Only resource_name is used now.</p>

Table 3-239 Tags

Parameter	Mandatory	Type	Description
key	Yes	String	<p>Tag key.</p> <p>NOTE Note:</p> <ul style="list-style-type: none"> • A key can contain 1 to 128 characters. • A key can contain UTF-8 letters, digits, spaces, and the following characters: <code>_ . : = + - @</code> • Do not enter labels starting with sys, which are system labels. • Recommended regular expression: <code>^((?!sys)[\p{L}\p{Z}\p{N}_.:=-\@]*)\$</code>

Parameter	Mandatory	Type	Description
values	Yes	Array of strings	<p>List of tag values.</p> <p>NOTE Note:</p> <ul style="list-style-type: none"> • A value can contain 0 to 255 characters. • Can contain UTF-8 letters, digits, spaces, and the following characters: . : / = + - @ <i>Recommended regular expression: $^([\{p\}L\} p\{Z\} p\{N\}:./=+-@]^*)\$</i> • The value can be empty or null. • The value of a predefined tag cannot be empty or null.

Table 3-240 Match

Parameter	Mandatory	Type	Description
key	Yes	String	Tag key. Currently, only resource_name is supported. Other key values will be available later.
value	Yes	String	Value. Each value can contain a maximum of 255 Unicode characters. The character set is not verified.

Response Parameters

Status code: 200

Table 3-241 Response body parameters

Parameter	Type	Description
resources	Array of Resources objects	Resource instance details obtained by the query mode.
total_count	Integer	Total records.

Table 3-242 Resources

Parameter	Type	Description
resource_id	String	Instance ID.
resource_detail	InstanceDetail object	CBH instance details
tags	Array of ResourceTag objects	Tags.
sys_tags	Array of ResourceTag objects	sys_tags.
resource_name	String	Resource name.

Table 3-243 InstanceDetail

Parameter	Type	Description
name	String	CBH instance name.
server_id	String	ID of the server where the CBH instance is deployed..
instance_id	String	CBH instance ID.
alter_permit	Boolean	Whether the CBH instance can be expanded. <ul style="list-style-type: none"> • true: Yes • false: No
enterprise_project_id	String	Project ID.
period_num	String	Number of subscription periods of a CBH instance.
start_time	String	Start time of the CBH instance, in timestamp format.
end_time	String	End time of the CBH instance, in timestamp format.
created_time	String	Time when the CBH instance was created, in UTC format.
upgrade_time	Long	Upgrade schedule of the CBH instance, in the format of timestamp.

Parameter	Type	Description
update	String	Whether the CBH instance can be upgraded. <ul style="list-style-type: none"> • OLD: The current version is the latest one. • NEW: Can be upgraded. • CROSS_OS: Can be upgraded to any later versions. • ROLLBACK: Can be rolled back.
bastion_version	String	Current version of the CBH instance.
az_info	az_info object	AZ information.
status_info	status_info object	Status information.
resource_info	resource_info object	Resource information.
network	network object	Network information.
ha_info	ha_info object	Active and standby node information.

Table 3-244 az_info

Parameter	Type	Description
region	String	ID of the AZ where the CBH instance locates.
zone	String	ID of the AZ where the CBH instance locates. (In primary/standby mode, the ID of the AZ where the primary instance locates is required.)
availability_zone_display	String	AZ where the CBH instance locates. (In primary/standby mode, the ID of the AZ where the primary instance locates is required. Name)
slave_zone	String	AZ where the standby CBH instance locates.
slave_zone_display	String	AZ where the standby CBH instance locates.

Table 3-245 status_info

Parameter	Type	Description
status	String	CBH instance status <ul style="list-style-type: none"> ● SHOUTOFF: Closed ● ACTIVE: Running ● DELETING: Deleting ● BUILD: Creating ● DELETED: Deleting ● ERROR: Faulty ● HAWAIT: Waiting for the standby node to be created ● FROZEN: Frozen ● UPGRADING: Upgrading ● UNPAID: Pending Payment ● RESIZE: Changing specifications ● DILATATION: Expanding capacity ● HA: Configuring HA
task_status	String	CBH instance status. <ul style="list-style-type: none"> ● powering-on: Started ● powering-off: Stopped ● rebooting: Rebooting ● delete_wait: Deleting ● frozen: Frozen ● NO_TASK: Running ● unfrozen: Unfrozen ● alter: Changing ● updating: Upgrading ● configuring-ha: Configuring HA ● data-migrating: Migrating data ● rollback: Rolling back to the previous version. ● traffic-switchover: Traffic switching

Parameter	Type	Description
create_instance_status	String	Status of a CBH instance during instance creation. <ul style="list-style-type: none"> • Waiting for payment: Waiting for payment • creating-network: Creating a network. • creating-server: Creating the service. • transferring-horizontal-network: Establishing network connections. • adding-policy-route: Adding a routing policy. • configuring-dns: Configuring DNS. • starting-cbs-service: The service is running. • setting-init-conf: Initializing • buying-EIP: Buying an EIP.
instance_status	String	CBH instance status. <ul style="list-style-type: none"> • building: Creating • deleting: Deleting • deleted: Deleted • unpaid: Unpaid • upgrading: Upgrading • resizing: Resizing • abnormal: Abnormal • error: Faulty • ok: Normal
instance_description	String	CBH instance description.
fail_reason	String	Instance creation failure causes.

Table 3-246 resource_info

Parameter	Type	Description
specification	String	CBH instance specifications.
order_id	String	Order ID.
resource_id	String	CBH instance ID, in the UUID format.

Parameter	Type	Description
data_disk_size	Number	Size of the data disk for the CBH instance, in TB.
disk_resource_id	Array of strings	ID of the data disk for the CBH instance.

Table 3-247 network

Parameter	Type	Description
vip	String	Floating IP address of the CBH instance (This field is returned when the instance is deployed in primary/standby mode.)
web_port	String	Port used for accessing the CBH instance with a web browser.
public_ip	String	EIP bound to the CBH instance.
public_id	String	ID of the EIP bound to the CBH instance, in the UUID format.
private_ip	String	Private IP address of the CBH instance
vpc_id	String	ID of the VPC where the CBH instance locates.
subnet_id	String	ID of the subnet where the CBH instance locates.
security_group_id	String	ID of the Security group where the CBH instance locates.

Table 3-248 ha_info

Parameter	Type	Description
ha_id	String	IDs of the primary and standby instances.
instance_type	String	Instance type. The value can be: <ul style="list-style-type: none"> • master: Primary instance • slave: Standby instance

Table 3-249 ResourceTag

Parameter	Type	Description
key	String	Tag key. A tag key can contain up to 128 characters.
value	String	Tag value. Each value can contain a maximum of 255 characters.

Status code: 400

Table 3-250 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Incorrect request parameters.

Status code: 401

Table 3-251 Response body parameters

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

Status code: 403

Table 3-252 Response body parameters

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

Status code: 404

Table 3-253 Response body parameters

Parameter	Type	Description
error_code	String	Error code

Parameter	Type	Description
error_description	String	Not CBH instances found.

Example Requests

```
{
  "matches": [ {
    "key": "resource_name",
    "value": "resource1"
  } ],
  "not_tags": [ {
    "key": "key1",
    "values": [ "*"value1", "value2" ]
  } ],
  "tags": [ {
    "key": "key1",
    "values": [ "*"value1", "value2" ]
  } ],
  "tags_any": [ {
    "key": "key1",
    "values": [ "value1", "value2" ]
  } ],
  "not_tags_any": [ {
    "key": "key1",
    "values": [ "value1", "value2" ]
  } ],
  "sys_tags": [ {
    "key": "_sys_enterprise_project_id",
    "values": [ "5aa119a8-d25b-45a7-8d1b-88e127885635" ]
  } ]
}
```

Example Responses

Status code: 200

List CBH ByTags Success

```
{
  "resources": [ {
    "resource_id": "cdfs_cefs_wesas_12_dsad",
    "resource_name": "resouece1",
    "tags": [ {
      "key": "key1",
      "value": "value1"
    } ],
    "sys_tags": [ {
      "key": "_sys_enterprise_project_id",
      "value": "5aa119a8-xxxx-45a7-xxxx-88e12788xxxx"
    } ]
  } ],
  "total_count": 1000
}
```

Status Codes

Status Code	Description
200	List CBH ByTags Success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	System error.

Error Codes

See [Error Codes](#).

3.8.5 Performing Operations on a CBH Instance Tag

Function

This API is used to perform operations on a CBH tag.

URI

POST /v2/{project_id}/cbs/instance/{resource_id}/tags/action

Table 3-254 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID For details about how to obtain the project ID, see "Obtaining a Project ID".
resource_id	Yes	String	Resource ID. Obtain its value by calling the list API.

Request Parameters

Table 3-255 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. For details, see "Obtaining the Token of an IAM User."

Table 3-256 Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Action. <ul style="list-style-type: none"> • create • delete
tags	Yes	Array of ResourceTag objects	Tag list. This parameter is mandatory when the tenant permission is used. For the op_service permission, choose either this field or sys_tags.
sys_tags	No	Array of ResourceTag objects	System tag list. This field is available only to the op_service permission. Choose either this field or tags. Currently, TMS invokes only one resource_tag structure. The key is fixed as _sys_enterprise_project_id. The value is UUID or 0. 0 indicates the enterprise project by default. Currently, only create is supported.

Table 3-257 ResourceTag

Parameter	Mandatory	Type	Description
key	Yes	String	Tag key. A tag key can contain up to 128 characters.
value	Yes	String	Tag value. Each value can contain a maximum of 255 characters.

Response Parameters

Status code: 401

Table 3-258 Response body parameters

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

Status code: 403

Table 3-259 Response body parameters

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

Status code: 404

Table 3-260 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_description	String	Not CBH instances found.

Example Requests

```
{
  "action": "create",
  "tags": [{
    "key": "key1",
```

```
"value" : "value1"  
}, {  
  "key" : "key",  
  "value" : "value3"  
}]  
}
```

Example Responses

None

Status Codes

Status Code	Description
204	A request has succeeded, but that the client does not need to navigate away from its current page.
400	Invalid parameters
401	Unauthorized
403	Forbidden
404	Not Found
500	System error.

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 API for [Querying Project Information Based on 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 [Regions and Endpoints](#). 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 **My Credentials** from the drop-down list.
3. On the page, view the project ID in the project list.

Figure A-1 Viewing project IDs

