Distributed Cache Service

API Reference

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Contents

1 Before You Start

1.1 Overview

Welcome to *Distributed Cache Service API Reference*. Distributed Cache Service (DCS) is an online, distributed, in-memory cache service compatible with Redis. It is reliable, scalable, usable out of the box, and easy to manage, meeting your requirements for high read/write performance and fast data access.

This document describes how to use application programming interfaces (APIs) to perform operations on DCS, such as creating, deleting, and scaling up DCS instances. For details about all supported operations, see **API Overview**.

If you plan to access DCS instances through an API, ensure that you are familiar with DCS concepts. For details, see **DCS Service Overview**.

> **NOTICE**
>
> ● Some APIs are supported only in certain regions.
>
> ● DCS is continuously upgraded with new functions, and the existing APIs are inevitably adjusted. For example, new response parameters may be added.
>
> ● To reduce the impact of API changes, DCS is backward compatible with APIs when possible. However, when you use DCS, you should accept and ignore unused parameters and parameter values in returned content (in JSON format).
>
> ● For details about how to access DCS Redis instances through clients in various languages, see **Accessing a DCS Redis Instance**.

1.2 API Calling

DCS support Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS. For details about API calling, see **Calling APIs**.

1.3 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.

1.4 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 account is a payment entity and should not be used directly to perform routine management. For security purposes, create IAM users and grant them permissions for routine management.

- IAM user

  An IAM user is created using an account to use cloud services. Each IAM user has their own identity credentials (password and access keys).

  The account name, username, and password will be required for API authentication.

- Regions are defined by their geographical location and network latency. Public services, such as Elastic Cloud Server (ECS), Elastic Volume Service (EVS), and Object Storage Service (OBS), are shared within the same region. AZs in the same region can communicate with each other over an intranet, but AZs in different regions cannot. You can use cloud services in locations that meet your requirements. For example, you can design applications in a location that is close to your customers or that meets specific requirements.

- AZs are physically isolated locations in a region, but are interconnected through an internal network for enhanced application availability.

- Project

  Projects group and isolate compute, storage, and network resources across physical regions. A default project is provided for each region, and subprojects can be created under each default project. Users can be granted permissions to access all resources in a specific project. For more refined access control, create subprojects under a project and purchase resources in the subprojects. Users can then be assigned permissions to access only specific resources in the subprojects.

Figure 1-1 Project isolating model
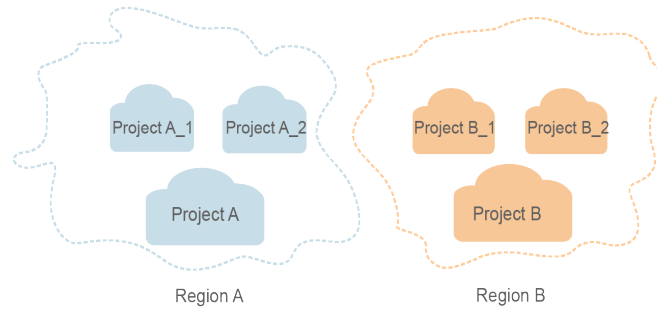
2 API Overview

Table 2-1 APIs provided by DCS

Type	Description
Lifecycle management APIs	Create, query, delete, modify, and scale instances.
Instance management APIs	Restart instances, query instance status, change passwords, and query instance statistics.
Shard and replica management APIs	Add replicas, configure replica priority, and query shard details.
Parameter management APIs	Query and modify instance configuration parameters.
Backup and restoration APIs	Back up and restore instances, and view backup and restoration records.
Data migration APIs	Create data migration tasks.
Tag management APIs	Add and delete tags, query tags of a specified instance, and query tags of a tenant.
Cache analysis APIs	Configure and query big key and hot key analysis tasks.
Log management APIs	Query slow query logs.
IP whitelist Management APIs	Configure and query IP whitelist groups of an instance.
Background task management APIs	Query and delete background tasks.
Instance diagnosis APIs	Query AZ information, product specifications, and maintenance time windows.

3 Calling APIs

3.1 Making an API Request

This section describes how to make a REST API request, and uses the IAM API for **obtaining a user token** as an example to describe how to call an API. The obtained token is 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 a request header, most programming languages or frameworks require the request URI to be separately transmitted, rather than being conveyed in a request message.

- **URI-scheme**:

  Protocol used to transmit requests. All APIs use HTTPS.

- **Endpoint**:

  Domain name or IP address of the server bearing the REST service endpoint. Obtain the value from Regions and Endpoints.

  For example, the endpoint of IAM in the **EU-Dublin** region is **iam.eu-west-101.myhuaweicloud.com**.

- **resource-path**:

  API access path for performing a specified operation. Obtain the value from the URI of the API. For example, the **resource-path** of the API for obtaining a user token is **/v3/auth/tokens**.

- **query-string**:

  Query parameter, which is optional. Not all APIs have a query parameter. Ensure that a question mark (?) is included before a query parameter that is in the format of "Parameter name=Parameter value". For example, **? limit=10** indicates that a maximum of 10 pieces of data is to be viewed.

📖 **NOTE**

To simplify URI display, each API is provided with only a **resource-path** and a request method. This is because the **URI-scheme** value of all APIs is **HTTPS**, and the endpoints of a service are the same in a region. Therefore, the two parts are omitted.

Request Methods

HTTP-based request methods, which are also called operations or actions, specify the type of operations that you are requesting.

- **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**: requests a server resource header.

- **PATCH**: requests the server to update partial content of a specified resource. If the resource is unavailable, the PATCH method is used to create a resource.

For example, in the URI for **obtaining a user token**, the request method is POST, and the request is as follows:

https://iam.eu-west-101.myhuaweicloud.com/v3/auth/tokens

Request Header

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

Common request headers are as follows:

- **Content-Type**: specifies the request body type or format. This field is mandatory and its default value is **application/json**. For other values, the description will be provided for specific APIs.

- **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 authentication using tokens, DCS APIs support authentication using AK/SK, which uses SDKs to sign a request. During the signature, the **Authorization** (signature authentication) and **X-Sdk-Date** (time when a request is sent) headers are automatically added in the request.

  For details, see **Authentication Using AK/SK**.

The API for **obtaining a user token** does not require authentication. Therefore, this API only requires adding the **Content-Type** field. The request with the added **Content-Type** header is as follows:

POST https://iam.eu-west-101.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 according to the APIs. Certain APIs do not require the request body, such as the GET and DELETE APIs.

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. Replace *username*, *domainname*, ******** (login password), and *xxxxxxxxxxxxxxxx* (project IDsuch as eu-west-101) with the actual values. Obtain the project ID from the **Region** column of Regions and Endpoints.

> **NOTE**
>
> **scope** specifies where a token takes effect. In the following example, the token takes effect only on the resources specified by the project ID. You can set the scope to an account or a project under an account. For details, see **btaining a user token**.

```
POST https://iam.eu-west-101.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json

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

If all data required by a request is available, you can send the request to call an API through **curl**, **Postman**, or coding. For the API of obtaining a user token, **x-subject-token** in the response header is the desired user token. Then, you can use the token to authenticate the calling of other APIs.

3.2 Authentication

Calling an API can be authenticated using either of the following methods:

- Authentication using tokens: General requests are authenticated using tokens.

- Authentication using AK/SK: Requests are encrypted using access key ID (AK)/secret access key (SK). Authentication using AK/SK is recommended because it provides higher security than authentication using tokens.

Authentication Using Tokens

📖 **NOTE**

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

A token specifies certain permissions in a computer system. Authentication using a token adds the token in a request as its header during API calling to obtain permissions to operate APIs.

You can obtain a token by calling the API for **obtaining a user token**. A project-level token is required for calling APIs of this service. To obtain such a project-level token, set **auth.scope** to the project name in the request body for calling the API for obtaining a user token.

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

After obtaining the token, add the **X-Auth-Token** header in a request to specify the token when calling other APIs. For example, if the token is **ABCDEFJ....**, add **X-Auth-Token: ABCDEFJ....** in a request as follows:

```
POST https://iam.eu-west-101.myhuaweicloud.com/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

Authentication Using AK/SK

📖 **NOTE**

Authentication using AK/SK supports API requests with a body not larger than 12 MB. For API requests with a larger body, authentication using tokens is recommended.

In authentication using AK/SK, AK/SK is used to sign a request and add the signature in a request as its header for authentication.

- AK: access key ID, which is a unique identifier associated with a secret access key and is 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 authentication using AK/SK, you can use AK/SK to sign requests based on the signature algorithm or use a dedicated signature SDK to sign the requests. For details about how to sign requests and use the signature SDK, see **API Request Signing Guide**.

> **NOTICE**
>
> The signature SDK only supports signature, which is different from the SDKs provided by services.

3.3 Returned Values

Status Code

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

A status code is a group of digits ranging from 1xx to 5xx. It indicates the status of a response. For more information, see **Status Codes**.

If status code **201** is returned for the calling of the API for **obtaining a user token**, the request is successful.

Response Header

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

Figure 3-1 shows the response header for the API for **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 3-1 Header of the response to the request for obtaining a user token

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**.

```
{
    "token": {
        "expires_at": "2022-02-13T06:52:13.855000Z",
        "methods": [
            "password"
        ],
        "catalog": [
            {
                "endpoints": [
                    {
                        "region_id": "XXXXXX",
......
```

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": {
        "code": "111400060",
        "message": "instance name exists."
    }
}
```

In the preceding information, **error_code** is an error code, and **error_msg** describes the error.

4 API V2

4.1 Lifecycle Management

4.1.1 Creating a DCS Instance

Function

This API is used to create a DCS instance which is billed in pay-per-use mode.

URI

POST /v2/{project_id}/instances

Table 4-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Request Parameters

Table 4-2 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Instance name. An instance name can contain letters, digits, underscores (_), and hyphens (-), and must start with a letter. When you create only one instance at a time, the value of this parameter can contain 4 to 64 characters. When you create multiple instances at a time, the value of this parameter can contain 4 to 56 characters. The instances are named in the format of *custom name-n*, where *n* starts from 000 and is incremented by 1. For example, if you create two instances and set the custom name to **dcs_demo**, the two instances are respectively named **dcs_demo-000** and **dcs_demo-001**.
engine	Yes	String	Cache engine. The value can be **Redis**.
engine_version	No	String	Cache version. If the cache engine is Redis, the value can be **4.0**, or **5.0**.
capacity	Yes	Float	Cache capacity (GB). ● For a single-node or master/standby DCS Redis 4.0 or 5.0 instance, the value can be **0.125**, **0.25**, **0.5**, **1**, **2**, **4**, **8**, **16**, **32**, or **64**. For a Redis Cluster DCS Redis 4.0 or 5.0 instance, the value can be **24**, **32**, **48**, **64**, **96**, **128**, **192**, **256**, **384**, **512**, **768**, or **1024**.

Parameter	Mandatory	Type	Description
spec_code	Yes	String	Product flavor. The query method is as follows: ● Method 1: Read the *Service Overview* document **Redis 4.0 and 5.0 Instance Specifications**. ● Method 2: Log in to the DCS console, click **Buy DCS Instance**, and check the instance flavor. ● Method 3: Call the API used to query product flavors **Querying Product Flavors**.
az_codes	Yes	Array of strings	ID of the AZ where the cache node resides and which has available resources. For details, see **Querying AZs**. Check whether the desired AZ has available resources. Master/Standby, Proxy Cluster, and Redis Cluster DCS instances support cross-AZ deployment. You can specify an AZ for the standby node. When specifying AZs for nodes, use commas (,) to separate multiple AZs. For details, see the example request.
vpc_id	Yes	String	VPC ID. You can obtain the value in either of the following ways: ● Method 1: Log in to the VPC console, and click the name of a VPC to view the VPC ID on the displayed details page. ● Method 2: Call the API used to query VPCs. For details, see **Querying VPCs**.

Parameter	Mandatory	Type	Description
subnet_id	Yes	String	Subnet network ID. You can obtain the value in either of the following ways: ● Method 1: Log in to the VPC console and click the target subnet on the **Subnets** page. You can view the network ID on the displayed page. ● Method 2: Call the API used to query subnets. For details, see **Querying Subnets**.
security_group_id	No	String	ID of the security group to which the instance belongs. This parameter is optional when the **engine** is **Redis** and **engine_version** is **4.0** or **5.0**. DCS Redis 4.0 and 5.0 instances do not support security group access control. They support only whitelist-based access control.
publicip_id	No	String	ID of the EIP bound to the DCS Redis instance. This parameter is mandatory if public access is enabled (that is, **enable_publicip** is set to **true**). Default: **false**
enterprise_project_id	No	String	Enterprise project ID.
enterprise_project_name	No	String	Name of an enterprise project.
description	No	String	Instance description. The description can contain a maximum of 1024 characters. **NOTE** The backslash (\) and quotation mark (") are special characters for JSON messages. When using these characters in a parameter value, add the escape character (\) before the characters, for example, **** and **\"**.

Parameter	Mandatory	Type	Description
enable_ssl	No	Boolean	Whether to enable SSL for public access to a DCS Redis instance. ● **true**: enable ● **false**: disable
private_ip	No	String	IP address that is manually specified for a DCS instance. This parameter is available for DCS Redis instances.
instance_num	No	Integer	Number of instances to be created in batches. This parameter is available for DCS Redis instances. Default value: **1** Value range: 1–100 Default: **1**
maintain_begin	No	String	UTC time when the maintenance time window starts. The format is HH:mm:ss. ● The start time and end time of the maintenance time window must indicate the time segment of a supported maintenance time window. For details, see **Listing Maintenance Time Windows**. ● The start time must be set to 22:00:00, 02:00:00, 06:00:00, 10:00:00, 14:00:00, or 18:00:00. ● The start time and end time must be set in pairs. If the start time is left blank, the end time must also be left blank. In this case, the system automatically sets the start time to 02:00:00.

Parameter	Mandatory	Type	Description
maintain_end	No	String	UTC time when the maintenance time window ends. The format is HH:mm:ss. ● The start time and end time of the maintenance time window must indicate the time segment of a supported maintenance time window. For details, see **Listing Maintenance Time Windows**. ● The end time is four hours later than the start time. For example, if the start time is 22:00:00, the end time is 02:00:00. ● The start time and end time must be set in pairs. If the end time is left blank, the start time is also left blank. In this case, the system automatically sets the end time to 06:00:00.

password	No	String	DCS instance authentication information.
			
			NOTE
			When **no_password_access** is set to **false** or not specified, the request must contain the **password** parameter. The password of a DCS Redis instance must meet the following complexity requirements:
			
			● Can be 8 to 32 characters long.
			
			● The new password must be different from the old password.
			
			● Contains at least three of the following character types:
			
			  – Lowercase letters
			
			  – Uppercase letters
			
			  – Digits
			
			  – Special characters \`~!@#$%^&*()-_=+\\\| [{}]:'"",<.>/?

Parameter	Mandatory	Type	Description
no_password_access	No	Boolean	Whether the instance can be accessed without a password. ● **true**: The instance can be accessed without a password. ● **false**: The instance can be accessed only after password authentication. If this parameter is not set, the default value **false** is used. Default: **false**
instance_backup_policy	No	**BackupPolicy** object	Backup policy. This parameter is supported when the instance type is master/standby or cluster.
tags	No	Array of **ResourceTag** objects	Instance tag key and value.
access_user	No	String	If the cache engine is Redis, you do not need to set this parameter.
enable_publicip	No	Boolean	Whether to enable public network access for the DCS Redis instance. ● **true**: enable ● **false**: disable Default: **false**
port	No	Integer	Port customization. If this parameter is not sent or is left empty when you create a Redis 4.0 or 5.0 instance, the default port 6379 will be used. To customize a port, specify a port number in the range from 1 to 65535.

Parameter	Mandatory	Type	Description
rename_commands	No	Object	Critical command renaming. If this parameter is not sent or is left empty when you create a Redis 4.0 or 5.0 instance, no critical commands will be renamed. Currently, only **COMMAND**, **KEYS**, **FLUSHDB**, **FLUSHALL**, and **HGETALL** commands can be renamed.

Table 4-3 BackupPolicy

Parameter	Mandatory	Type	Description
backup_type	Yes	String	Backup type. ● **auto**: automatic backup ● **manual**: manual backup
save_days	No	Integer	This parameter is mandatory when **backup_type** is set to **auto**. Retention period, in days. The value ranges from 1 to 7.
periodical_backup_plan	No	**BackupPlan** object	Backup schedule. This parameter is mandatory when **backup_type** is set to **auto**.

Table 4-4 BackupPlan

Parameter	Mandatory	Type	Description
timezone_offset	No	String	Time zone in which backup is performed. Range: GMT – 12:00 to GMT +12:00. If this parameter is left blank, the current time zone of the DCS-Server VM is used by default.
backup_at	Yes	Array of integers	Day in a week on which backup starts. The value ranges from **1** to **7**, where **1** indicates Monday, and **7** indicates Sunday.

Parameter	Mandatory	Type	Description
period_type	Yes	String	Interval at which backup is performed, which supports only **weekly** currently.
begin_at	Yes	String	Time at which backup starts. **00:00-01:00** indicates that the backup starts at 00:00.

Table 4-5 ResourceTag

Parameter	Mandatory	Type	Description
key	Yes	String	Tag key. ● This field cannot be left blank. ● The key value of a resource must be unique. ● The tag key can contain a maximum of 36 characters. ● The tag key must be unique and cannot be empty.
value	No	String	Tag value. ● This parameter is mandatory when **action** is set to **create** and is optional when **action** is set to **delete**. ● The tag value can contain a maximum of 43 characters.

Response Parameters

Status code: 200

Table 4-6 Response body parameters

Parameter	Type	Description
instances	Array of **Instances** objects	DCS instance ID and name. If multiple DCS instances are created at a time, multiple DCS instance IDs and names will be returned.

Table 4-7 Instances

Parameter	Type	Description
instance_id	String	DCS instance ID.
instance_name	String	DCS instance name.

Status code: 400

Table 4-8 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-9 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-10 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-11 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-12 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

- Creating a DCS Redis instance
  POST https://{dcs_endpoint}/v2/{project_id}/instances

```
{
  "name" : "dcs-APITest",
  "description" : "Test",
  "engine" : "Redis",
  "engine_version" : 5.0,
  "enterprise_project_id" : 0,
  "enterprise_project_name" : "default",
  "vpc_id" : "5e37b3be-950a-48e1-b498-65b63d336481",
  "security_group_id" : "securityGroupId",
  "enable_ssl" : false,
  "private_ip" : "",
  "az_codes" : [ "xxxxxx" ],
  "capacity" : 2,
  "access_user" : "",
  "instance_num" : 1,
  "maintain_begin" : "02:00:00",
  "maintain_end\"" : "06:00:00",
  "password" : "********",
  "enable_publicip" : false,
  "spec_code" : "redis.single.xu1.tiny.128",
  "subnet_id" : "a3bd29e4-d5bc-414c-a79a-1f35ee4ead88",
  "no_password_access" : false
}
```

- Creating a pay-per-use, master/standby DCS Redis instance with tags, a customized port, renamed commands, and cross-AZ deployment

```
{
  "enterprise_project_name" : "default",
  "vpc_id" : "c5cd009b-9ba9-41f2-9a26-2b8c3f3ffd39",
  "description" : "Test",
  "security_group_id" : "d57fad27-e3e9-43b7-9498-0a698ab63b27",
  "port" : 4040,
  "maintain_end\"" : "06:00:00",
  "enable_ssl" : false,
  "private_ip" : "",
  "az_codes" : [ "xxxxxx", "xxxxxxx" ],
  "capacity" : 2,
  "access_user" : "",
  "instance_num" : 1,
  "maintain_begin" : "02:00:00",
  "enterprise_project_id" : 0,
  "password" : "********",
  "enable_publicip" : false,
  "engine" : "Redis",
  "spec_code" : "redis.ha.au1.large.2",
  "name" : "dcs-demo",
  "subnet_id" : "7e95c4d6-d7af-424c-a3cf-2be10968fe81",
  "engine_version" : 4.0,
  "no_password_access" : true,
  "rename_commands" : {
    "keys" : "keys001",
    "flushdb" : "flushdb001",
    "flushall" : "flushall001"
  },
  "tags" : [ {
    "key" : "dcs001",
    "value" : 2
  }, {
    "key" : "dcs003",
    "value" : 4
  } ]
}
```

- Creating a master/standby DCS Memcached instance with backup policies

---

```
{
  "publicip_id" : "",
  "enterprise_project_name" : "default",
  "vpc_id" : "0402ea19-5457-4032-9d1b-eb48b98f6c66",
  "description" : "Test",
  "security_group_id" : "4b95a790-5cfc-463d-8de5-42199e55371c",
  "maintain_end\"" : "06:00",
  "enable_ssl" : false,
  "private_ip" : "",
  "az_codes" : [ "xxxxxx" ],
  "capacity" : 2,
  "access_user" : "",
  "instance_num" : 1,
  "maintain_begin" : "02:00:00",
  "enterprise_project_id" : 0,
  "password" : "********",
  "enable_publicip" : false,
  "engine" : "Memcached",
  "spec_code" : "dcs.memcached.single_node",
  "name" : "dcs-APITest",
  "subnet_id" : "a3bd29e4-d5bc-414c-a79a-1f35ee4ead88",
  "engine_version" : 3.0,
  "no_password_access" : false,
  "instance_backup_policy" : {
    "save_days" : 1,
    "backup_type" : "auto",
    "periodical_backup_plan" : {
      "begin_at" : "16:00-17:00",
      "period_type" : "weekly",
      "backup_at" : [ 1, 2, 3, 4, 5, 6, 7 ],
      "timezone_offset" : "+0800"
    }
  }
}
```

Example Responses

Status code: 200

The DCS instance creation task is submitted successfully.

📖 **NOTE**

If the instance status is **RUNNING**, the DCS instance has been successfully created.

- Example 1
```
{
  "instances" : [ {
    "instance_id" : "3c49fd6b-fc7c-419e-9644-b6cce008653f",
    "instance_name" : "dcs-test005"
  } ]
}
```

- Example 2
```
{
  "instances" : [ {
    "instance_id" : "77284d69-cd51-4bf1-aa30-2e60f055800c",
    "instance_name" : "dcs-APITest1"
  } ]
}
```

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.1004",
  "error_msg" : "Project ID does not match the token."
}
```

Status code: 401

Invalid authentication information.

```
{
  "error_code" : "DCS.1001",
  "error_msg" : "Invalid token."
}
```

Status code: 403

The request is rejected.

```
{
  "error_code" : "DCS.2003",
  "error_msg" : "This role does not have the permission to perform this operation."
}
```

Status code: 404

The requested resource is not found.

```
{
  "error_code" : "DCS.4001",
  "error_msg" : "The requested URL does not exist."
}
```

Status code: 500

Internal service error.

```
{
  "error_code" : "DCS.5000",
  "error_msg" : "Internal service error."
}
```

Status Codes

Status Code	Description
200	The DCS instance creation task is submitted successfully. **NOTE** If the instance status is **RUNNING**, the DCS instance has been successfully created.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.1.2 Querying All DCS Instances

Function

This API is used to query DCS instances of a tenant, and allows you to specify query criteria.

URI

GET /v2/{project_id}/instances

Table 4-13 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Table 4-14 Query Parameters

Parameter	Mandatory	Type	Description
instance_id	No	String	Instance ID.
include_failure	No	String	Whether to return the number of instances that fail to be created. If the value is **true**, the number of instances that failed to be created is returned. If the value is not **true**, the number is not returned.
include_delete	No	String	Whether to return the number of instances that have been deleted. If the value is **true**, the number of instances that have been deleted is returned. If the value is not **true**, the number is not returned.
name	No	String	Instance name.
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records displayed on each page. The minimum value is **1**. The maximum value is **1000***. If this parameter is not specified, 10 records are displayed on each page by default.
status	No	String	Instance status. For details, see **DCS Instance Statuses**.
name_equal	No	String	Whether to search for the instance that precisely matches a specified instance name. The default value is *false**, indicating that a fuzzy search is performed based on a specified instance name. If the value is **true**, the instance that precisely matches a specified instance name is queried.
tags	No	String	The query is based on the instance tag key and value. *{key}* indicates the tag key, and *{value}* indicates the tag value. To query instances with multiple tag keys and values, separate key-value pairs with commas (,).
ip	No	String	IP address for connecting to the DCS instance.
capacity	No	String	DCS instance cache capacity in GB.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-15 Response body parameters

Parameter	Type	Description
instance_num	Integer	Number of instances.
instances	Array of **InstanceListInfo** objects	Instance details array.

Table 4-16 InstanceListInfo

Parameter	Type	Description
publicip_id	String	ID of the EIP bound to the DCS Redis instance. The value of this parameter is **null** if public access is disabled.
vpc_name	String	VPC name.
charging_mode	Integer	Billing mode. The value can be **0**: pay-per-use.
vpc_id	String	VPC ID.
subnet_id	String	Subnet ID.
security_group_id	String	Security group ID.
created_at	String	Creation time. Format: 2017-03-31T12:24:46.297Z
enable_ssl	Boolean	Whether to SSL is enabled for public access to a DCS Redis instance. ● **true**: enable ● **false**: disable
max_memory	Integer	Total memory size in MB.
used_memory	Integer	Used memory size in MB.
publicip_address	String	EIP bound to the DCS Redis instance. The value of this parameter is **null** if public access is disabled.
capacity	Integer	Cache capacity (GB)
capacity_minor	String	Capacity (GB) of a small DCS instance (smaller than 1 GB).
order_id	String	Order ID. The value is null when a pay-per-use instance is created.

Parameter	Type	Description
maintain_begin	String	UTC time when the maintenance time window starts. The format is HH:mm:ss.
maintain_end	String	UTC time when the maintenance time window ends. The format is HH:mm:ss.
engine	String	Cache engine.
engine_version	String	Cache version.
service_upgrade	Boolean	Whether the instance has an upgrade task. ● **true**: yes ● **false**: no
no_password_access	String	Indicates whether the instance can be accessed without a password. ● **true**: The instance can be accessed without a password. ● **false**: The instance can be accessed only after password authentication.
service_task_id	String	Upgrade task ID. ● If the value of **service_upgrade** is set to **true**, the value of this parameter is the ID of the upgrade task. ● If the value of **service_upgrade** is set to **false**, the value of this parameter is empty.
ip	String	IP address for connecting to the DCS instance. For a cluster instance, multiple IP addresses are returned and separated by commas (,). For example, 192.168.0.1,192.168.0.2.
access_user	String	Username used for accessing a DCS instance after password authentication.
instance_id	String	Instance ID.
enable_publicip	Boolean	Indicates whether public network access is enabled for the DCS Redis instance. ● **true**: enable ● **false**: disable
port	Integer	Port of the DCS instance.
user_id	String	User ID.
user_name	String	Username.
domain_name	String	Domain name of the instance.

Parameter	Type	Description
readonly_domain_name	String	Read-only domain name of the instance. This parameter is available only for master/standby instances.
name	String	Instance name.
spec_code	String	Product flavor.
status	String	Instance status. For details, see **DCS Instance Statuses**.
tags	Array of **ResourceTag** objects	Instance tag key and value.
enterprise_project_id	String	Enterprise project ID.
description	String	Description about the instance.
cpu_type	String	CPU type of the instance. Generally, the value is **x86_64** or **aarch64**.
az_codes	Array of strings	AZs where there are available resources.
features	**Features** object	Features supported by the instance.
sub_status	String	Instance sub-status.

Table 4-17 ResourceTag

Parameter	Type	Description
key	String	Tag key. ● This field cannot be left blank. ● The key value of a resource must be unique. ● The tag key can contain a maximum of 36 characters. ● The tag key must be unique and cannot be empty.
value	String	Tag value. ● This parameter is mandatory when **action** is set to **create** and is optional when **action** is set to **delete**. ● The tag value can contain a maximum of 43 characters.

Table 4-18 Features

Parameter	Type	Description
support_acl	Boolean	Whether ACL is supported. ● **true**: yes ● **false**: no
support_trans parent_client_ ip	Boolean	Whether client IP pass-through is enabled. ● **true**: yes ● **false**: no
support_ssl	Boolean	Whether SSL is supported. ● **true**: yes ● **false**: no

Status code: 400

Table 4-19 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-20 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: **403**

Table 4-21 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: **404**

Table 4-22 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: **500**

Table 4-23 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
GET https://{dcs_endpoint}/v2/{project_id}/instances?
offset=0&limit=10&name={name}&status={status}&id={id}&include_failure=true&include_delete=true&name
_equal=false
```

Example Responses

Status code: 200

All instances are listed successfully.

```
{
  "instance_num" : 1,
  "instances" : [ {
    "publicip_id" : { },
    "vpc_name" : "dcs-beta",
    "charging_mode" : 0,
    "vpc_id" : "5e37b3be-950a-48e1-b498-65b63d336481",
    "subnet_id" : "a4112635-3ec0-471c-95c3-5cf49b9533af",
    "user_name" : "hwclouduser",
    "created_at" : "2022-08-29T09:00:34.335Z",
    "enable_ssl" : false,
    "max_memory" : 128,
    "publicip_address" : null,
    "capacity" : 0,
    "order_id" : null,
    "maintain_begin" : "18:00:00",
    "engine" : "Redis",
    "maintain_end" : "19:00:00",
    "capacity_minor" : ".125",
    "service_upgrade" : false,
    "no_password_access" : true,
    "service_task_id" : "",
    "ip" : "192.168.0.195",
    "used_memory" : 2,
    "access_user" : null,
    "instance_id" : "c830053e-d5a3-4bc0-b6d6-ca37d1ea9dd5",
    "enable_publicip" : false,
    "port" : 6379,
    "user_id" : "d53977d1adfb49c5b025ba7d33a13fd7",
    "domain_name" : "redis-c830053e-d5a3-4bc0-b6d6-ca37d1ea9dd5.dcs.huaweicloud.com",
    "name" : "dcs-lpvo0829",
    "spec_code" : "redis.ha.xu1.tiny.r2.128",
    "engine_version" : "5.0",
    "status" : "RUNNING",
    "security_group_id" : "securityGroupId",
    "enterprise_project_id" : 0,
    "tags" : [ {
      "key" : 1,
      "value" : "DCS"
    } ],
    "az_codes" : [ "cn-north-7b", "cn-north-7c" ],
    "description" : "Instance description.",
    "cpu_type" : "x86_64",
    "features" : {
      "support_acl" : true,
      "support_transparent_client_ip" : true,
      "support_ssl" : false
    },
    "sub_status" : "normal"
  } ]
}
```

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.4800",
```

```
"error_msg" : "Invalid offset in the request."
}
```

Status Codes

Status Code	Description
200	All instances are listed successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.1.3 Batch Deleting DCS Instances

Function

This API is used to delete multiple DCS instances at a time.

URI

DELETE /v2/{project_id}/instances

Table 4-24 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Table 4-25 Query Parameters

Parameter	Mandatory	Type	Description
all_failure	No	Boolean	Whether to delete all DCS instances that failed to be created. Values: • **true**: all instances that fail to be created are deleted. In this case, the **instances** parameter in the request can be empty. • **false** or other values: The DCS instances specified by the **instances** parameter will be deleted.

Request Parameters

Table 4-26 Request body parameters

Parameter	Mandatory	Type	Description
instances	No	Array of strings	List of instance IDs. This parameter is set only when the **all_failure** parameter in the URI is set to **false** or another value.

Response Parameters

Status code: 200

Table 4-27 Response body parameters

Parameter	Type	Description
results	Array of **BatchOpsResult** objects	Result of deleting, restarting, or clearing data of an instance.

Table 4-28 BatchOpsResult

Parameter	Type	Description
result	String	Instance deletion result. Options: **success** and **failed**.

Parameter	Type	Description
instance	String	DCS instance ID.

Status code: 500

Table 4-29 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 400

Table 4-30 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
DELETE https://{dcs_endpoint}/v2/{project_id}/instances?all_failure={all_failure}

{
  "instances" : [ "54602a9d-5e22-4239-9123-77e350df4a34", "7166cdea-dbad-4d79-9610-7163e6f8b640" ]
}
```

Example Responses

Status code: 200

DCS instances deleted successfully.

```
{
  "results" : [ {
    "result" : "success",
    "instance" : "54602a9d-5e22-4239-9123-77e350df4a34"
  }, {
    "result" : "success",
    "instance" : "7166cdea-dbad-4d79-9610-7163e6f8b640"
  } ]
}
```

Status Codes

Status Code	Description
200	DCS instances deleted successfully.
500	Internal service error.
400	Invalid request.

Error Codes

See **Error Codes**.

4.1.4 Querying a DCS instance

Function

This API is used to query the details about a specified DCS instance.

URI

GET /v2/{project_id}/instances/{instance_id}

Table 4-31 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
project_id	Yes	String	Project ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-32 Response body parameters

Parameter	Type	Description
vpc_name	String	VPC name.
charging_mode	Integer	Billing mode. The value can be **0**: pay-per-use.
vpc_id	String	VPC ID
user_name	String	Username.
created_at	String	Time when the instance is created. Format: 2017-03-31T12:24:46.297Z
description	String	Instance description
security_group_id	String	Security group ID.
security_group_name	String	Security group name.
max_memory	Integer	Total memory size in MB.
used_memory	Integer	Used memory size in MB.
capacity	Integer	DCS instance cache capacity in GB.
capacity_minor	String	Capacity (GB) of a small DCS instance (smaller than 1 GB).
maintain_begin	String	UTC time when the maintenance time window starts. The format is HH:mm:ss.
maintain_end	String	UTC time when the maintenance time window ends. The format is HH:mm:ss.
engine	String	DCS instance engine.
no_password_access	String	Indicates whether the instance can be accessed without a password. ● **true**: The instance can be accessed without a password. ● **false**: The instance can be accessed only after password authentication.
ip	String	IP address for connecting to the DCS instance. For a cluster instance, multiple IP addresses are returned and separated by commas (,). For example, 192.168.0.1,192.168.0.2.
instance_backup_policy	**InstanceBackupPolicy** object	Backup policy. This parameter is supported when the instance type is master/standby or cluster.

Parameter	Type	Description
az_codes	Array of strings	AZ where the instance is in. The AZ code is returned.
access_user	String	Username used for accessing a DCS instance after password authentication.
instance_id	String	Instance ID.
port	Integer	Port of the DCS instance.
user_id	String	User ID.
name	String	Instance name.
spec_code	String	Specification code.
subnet_id	String	Subnet ID.
subnet_name	String	Subnet name.
subnet_cidr	String	Subnet CIDR block.
engine_version	String	Cache version.
order_id	String	Order ID.
status	String	DCS instance status. For details, see **DCS Instance Statuses**.
domain_name	String	Domain name of the instance.
readonly_domain_name	String	Read-only domain name of the instance. This parameter is available only for master/standby instances.
enable_publicip	Boolean	Indicates whether public network access is enabled for the DCS Redis instance. ● **true**: enable ● **false**: disable
publicip_id	String	ID of the EIP bound to the DCS Redis instance. The value of this parameter is **null** if public access is disabled.
publicip_address	String	EIP bound to the DCS Redis instance. The value of this parameter is **null** if public access is disabled.
enable_ssl	Boolean	Whether to SSL is enabled for public access to a DCS Redis instance. ● **true**: enable ● **false**: disable

Parameter	Type	Description
service_upgrade	Boolean	Whether the instance has an upgrade task. ● **true**: yes ● **false**: no
service_task_id	String	Upgrade task ID. ● If the value of **service_upgrade** is set to **true**, the value of this parameter is the ID of the upgrade task. ● If the value of **service_upgrade** is set to **false**, the value of this parameter is empty.
enterprise_project_id	String	Enterprise project ID.
backend_addrs	String	Backend address of a cluster instance.
features	**Features** object	Features supported by the instance.
domain_name_info	**DomainNameInfo** object	Information about instance domain name update and public domain name resolution.
transparent_client_ip_enable	Boolean	Whether client IP pass-through is enabled.
sub_status	String	Instance sub-status.
tags	Array of **ResourceTag** objects	Instance tag key and value.
cpu_type	String	CPU type of the instance. Generally, the value is **x86_64** or **aarch64**.
enterprise_project_name	String	Enterprise project name.
update_at	String	Update time, for example, 2022-07-06T09:32:16.502Z.
product_type	String	Edition: community edition or professional edition. Enumeration values: ● **generic** ● **enterprise**
storage_type	String	Storage type (DRAM). Enumeration values: ● **DRAM**

Parameter	Type	Description
launched_at	String	Start time, for example, 2022-07-06T09:32:16.502Z.
cache_mode	String	DCS instance type. Options: • **single**: single-node • **ha**: master/standby • **cluster**: Redis Cluster • **proxy**: Proxy Cluster
support_slow_log_flag	String	Whether slow query logs are supported.
db_number	Integer	Number of databases.
replica_count	Integer	Number of replicas.
sharding_count	Integer	Number of shards in a cluster instance.
bandwidth_info	**BandwidthInfo** object	Bandwidth information.

Table 4-33 InstanceBackupPolicy

Parameter	Type	Description
backup_policy_id	String	Backup policy ID.
created_at	String	Creation time. Example: 2022-04-11T09:45:24.790Z
updated_at	String	Update time. Example: 2022-04-12T02:22:03.269Z
policy	**BackupPolicy** object	Backup policy.
tenant_id	String	Account ID.

Table 4-34 BackupPolicy

Parameter	Type	Description
backup_type	String	Backup type. • **auto**: automatic backup • **manual**: manual backup

Parameter	Type	Description
save_days	Integer	This parameter is mandatory when **backup_type** is set to **manual**. Retention period, in days. The value ranges from 1 to 7.
periodical_backup_plan	**BackupPlan** object	Backup schedule. This parameter is mandatory when **backup_type** is set to **manual**.

Table 4-35 BackupPlan

Parameter	Type	Description
timezone_offset	String	Time zone in which backup is performed. This parameter is no longer used.
backup_at	Array of integers	Day in a week on which backup starts. The value ranges from **1** to **7**, where **1** indicates Monday, and **7** indicates Sunday.
period_type	String	Interval at which backup is performed, which supports only **weekly** currently.
begin_at	String	UTC time when the backup starts. For example, **00:00-01:00** indicates that the backup starts at 08:00 (GMT+8).

Table 4-36 Features

Parameter	Type	Description
support_acl	Boolean	Whether ACL is supported. ● **true**: yes ● **false**: no
support_transparent_client_ip	Boolean	Whether client IP pass-through is enabled. ● **true**: yes ● **false**: no
support_ssl	Boolean	Whether SSL is supported. ● **true**: yes ● **false**: no

Table 4-37 DomainNameInfo

Parameter	Type	Description
support_public_resolve	Boolean	Whether to enable public domain name resolution. ● **true**: enable ● **false**: disable
is_latest_rules	Boolean	Whether the current domain name is the latest. ● **true**: yes ● **false**: no
zone_name	String	Region suffix of the domain name.
history_domain_names	Array of **DomainNameEntity** objects	Historical domain name information.

Table 4-38 DomainNameEntity

Parameter	Type	Description
domain_name	String	Historical domain names of the instance.
is_readonly	Boolean	Whether the domain name is read-only. ● **true**: yes ● **false**: no

Table 4-39 ResourceTag

Parameter	Type	Description
key	String	Tag key. ● This field cannot be left blank. ● The key value of a resource must be unique. ● The tag key can contain a maximum of 36 characters. ● The tag key must be unique and cannot be empty.

Parameter	Type	Description
value	String	Tag value. ● This parameter is mandatory when **action** is set to **create** and is optional when **action** is set to **delete**. ● The tag value can contain a maximum of 43 characters.

Table 4-40 BandwidthInfo

Parameter	Type	Description
begin_time	String	Start time of temporary increase.
end_time	String	End time of temporary increase.
current_time	String	Current time.
bandwidth	Integer	Current bandwidth, in GB.
next_expand_time	String	Next increase time.
expand_count	Integer	Number of increases.
expand_effect_time	String	Interval between temporary increases.
expand_interval_time	String	Time to the next increase.
max_expand_count	Integer	Maximum number of increases.
task_running	Boolean	Whether the task is running.

Example Requests

GET https://{dcs_endpoint}/v2/{project_id}/instances/{instance_id}

Example Responses

Status code: 200

The specified instance is queried successfully.

```
{
  "publicip_id" : null,
  "vpc_name" : "dcs-beta",
  "charging_mode" : 0,
  "enterprise_project_name" : "default",
  "vpc_id" : "5e37b3be-950a-48e1-b498-65b63d336481",
  "user_name" : "hwclouduser",
  "created_at" : "2022-08-29T08:53:47.319Z",
```

```
        "description" : null,
        "security_group_id" : "securityGroupId",
        "enable_ssl" : false,
        "max_memory" : 128,
        "publicip_address" : null,
        "capacity" : 0,
        "maintain_begin" : "18:00:00",
        "engine" : "Redis",
        "maintain_end" : "19:00:00",
        "capacity_minor" : ".125",
        "service_upgrade" : false,
        "subnet_name" : "dcs-beta",
        "no_password_access" : "true",
        "service_task_id" : null,
        "ip" : "192.168.0.251",
        "subnet_cidr" : "192.168.0.0/24",
        "used_memory" : 2,
        "security_group_name" : "securityGroupId",
        "instance_backup_policy" : null,
        "az_codes" : [ "cn-north-7c" ],
        "access_user" : null,
        "enterprise_project_id" : "0",
        "instance_id" : "a4c545cd-10b2-4efc-b0ab-a9b554ca0621",
        "enable_publicip" : false,
        "port" : 6379,
        "user_id" : "d53977d1adfb49c5b025ba7d33a13fd7",
        "domain_name" : "redis-a4c545cd-10b2-4efc-b0ab-a9b554ca0621.dcs.huaweicloud.com",
        "name" : "dcs-billing",
        "spec_code" : "redis.ha.xu1.tiny.r2.128",
        "subnet_id" : "a4112635-3ec0-471c-95c3-5cf49b9533af",
        "engine_version" : "5.0",
        "order_id" : null,
        "status" : "RUNNING",
        "features" : {
          "support_acl" : true,
          "support_transparent_client_ip" : true,
          "support_ssl" : false
        },
        "domain_name_info" : {
          "support_public_resolve" : true,
          "is_latest_rules" : true,
          "zone_name" : "dcs.huaweicloud.com",
          "history_domain_names" : null
        },
        "transparent_client_ip_enable" : true,
        "sub_status" : "normal",
        "tags" : null,
        "cpu_type" : "x86_64"
      }
```

Status Codes

Status Code	Description
200	The specified instance is queried successfully.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.1.5 Deleting an Instance

Function

This API is used to delete a specified DCS instance to free up all resources occupied by it.

📖 **NOTE**

To delete pay-per-use resources, perform operations in this section.

URI

DELETE /v2/{project_id}/instances/{instance_id}

Table 4-41 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Request Parameters

None

Response Parameters

None

Example Requests

DELETE https://{dcs_endpoint}/v2/{project_id}/instances/{instance_id}

Example Responses

None

Status Codes

Status Code	Description
204	Instance deleted successfully.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.1.6 Modifying Details of a DCS Instance

Function

This API is used to modify the information about a DCS instance, including the instance name, description, port, backup policy, start and end time of the maintenance window, and security group.

URI

PUT /v2/{project_id}/instances/{instance_id}

Table 4-42 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
project_id	Yes	String	Project ID.

Request Parameters

Table 4-43 Request body parameters

Parameter	Mandatory	Type	Description
name	No	String	Instance name. An instance name can contain letters, digits, underscores (_), and hyphens (-), and must start with a letter. When you create only one instance at a time, the value of this parameter can contain 4 to 64 characters. When you create multiple instances at a time, the value of this parameter can contain 4 to 56 characters. The instances are named in the format of *custom name-n*, where *n* starts from 000 and is incremented by 1. For example, if you create two instances and set the custom name to **dcs_demo**, the two instances are respectively named **dcs_demo-000** and **dcs_demo-001**.
description	No	String	Instance description. The description can contain a maximum of 1024 characters. **NOTE** The backslash (\\) and quotation mark (") are special characters for JSON messages. When using these characters in a parameter value, add the escape character (\\) before the characters, for example, \\\\ and \\". Minimum: **0** Maximum: **1024**

Parameter	Mandatory	Type	Description
port	No	Integer	Change the port for connecting to the Redis instance. The port range is from 1 to 65535. After the port is changed, all connections to the Redis instance are interrupted, and services must connect to the new port. Only DCS Redis 4.0 and 5.0 instances support port change. Minimum: **1** Maximum: **65535**
rename_commands	No	**RenameCommandResp** object	Command renaming list.
maintain_begin	No	String	UTC time when the maintenance time window starts. The format is HH:mm:ss. ' ● The start time and end time of the maintenance window must be within the time segment of a supported maintenance window. For details, see **Listing Maintenance Time Windows**. ● For example, the start time must be 18:00:00, 19:00:00, and so on. ● The start time and end time must be set in pairs. If the start time is left blank, the end time must also be left blank.

Parameter	Mandatory	Type	Description
maintain_end	No	String	UTC time when the maintenance time window starts. The format is HH:mm:ss. ' • The start time and end time of the maintenance window must be within the time segment of a supported maintenance window. For details, see **Listing Maintenance Time Windows**. • The end time is one hour later than the start time. For example, if the start time is 18:00:00, the end time is 19:00:00. • The start time and end time must be set in pairs. If the end time is left blank, the start time is also left blank.
security_group_id	No	String	Security group ID. The value can be obtained from the VPC console or the API. This parameter is supported only by DCS Redis 3.0 instances.
instance_backup_policy	No	**BackupPolicy** object	Backup policy. This parameter is supported when the instance type is master/standby or cluster.

Table 4-44 RenameCommandResp

Parameter	Mandatory	Type	Description
command	No	String	Command **COMMAND**.
flushall	No	String	Command **FLUSHALL**.
flushdb	No	String	Command **FLUSHDB**.
hgetall	No	String	Command **HGETALL**.
keys	No	String	Command **KEYS**.

Table 4-45 BackupPolicy

Parameter	Mandatory	Type	Description
backup_type	Yes	String	Backup type. • **auto**: automatic backup • **manual**: manual backup
save_days	No	Integer	This parameter is mandatory when **backup_type** is set to **manual**. Retention period, in days. The value ranges from 1 to 7.
periodical_bac kup_plan	No	**BackupPlan** object	Backup schedule. This parameter is mandatory when **backup_type** is set to **manual**.

Table 4-46 BackupPlan

Parameter	Mandatory	Type	Description
timezone_offs et	No	String	Time zone in which backup is performed. This parameter is no longer used.
backup_at	Yes	Array of integers	Day in a week on which backup starts. The value ranges from **1** to **7**, where **1** indicates Monday, and **7** indicates Sunday.
period_type	Yes	String	Interval at which backup is performed, which supports only **weekly** currently.
begin_at	Yes	String	UTC time when the backup starts. For example, **00:00-01:00** indicates that the backup starts at 08:00 (GMT +8).

Response Parameters

None

Example Requests

```
PUT https://{dcs_endpoint}/v2/{project_id}/instance/{instance_id}

{
```

```
"name" : "dcs002",
"description" : "instance description",
"port" : 6379,
"maintain_begin" : "18:00:00",
"maintain_end" : "19:00:00",
"security_group_id" : "18e9309f-f81a-4749-bb21-f74576292162",
"instance_backup_policy" : {
  "backup_type" : "auto",
  "save_days" : "1,",
  "periodical_backup_plan" : {
    "backup_at" : [ "1", "2", "3", "4", "6", "7" ],
    "period_type" : "weekly",
    "begin_at" : "00:00-01:00"
  }
 }
}
```

Example Responses

None

Status Codes

Status Code	Description
204	DCS instance modified successfully.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.1.7 Modifying Instance Specifications

Function

This API is used to modify specifications of a DCS instance in the **Running** state.

Constraints

Currently, the specifications of a Proxy Cluster DCS Redis 3.0 instance cannot be reduced.

URI

POST /v2/{project_id}/instances/{instance_id}/resize

Table 4-47 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
project_id	Yes	String	Project ID.

Request Parameters

Table 4-48 Request body parameters

Parameter	Mandatory	Type	Description
spec_code	Yes	String	Flavor after the modification. The query method is as follows: ● Method 1: Read the *Service Overview* document **Redis 4.0 and 5.0 Instance Specifications**. ● Method 2: Log in to the DCS console, click **Buy DCS Instance**, and check the instance flavor. ● Method 3: Call the API used to query product flavors **Querying Product Flavors**.
new_capacity	Yes	Number	New memory size of the DCS instance, in GB. For a single-node or master/standby DCS Redis 4.0 or 5.0 instance, the value can be **0.125**, **0.25**, **0.5**, **1**, **2**, **4**, **8**, **16**, **32**, or **64**. For a Redis Cluster DCS Redis 4.0 or 5.0 instance, the value can be **24**, **32**, **48**, **64**, **96**, **128**, **192**, **256**, **384**, **512**, **768**, or ****1024**. For a single-node or master/ standby DCS Memcached instance, the value can be **2**, **4**, **8**, **16**, **32**, or **64**.
bss_param	No	**BssParamEntity** object	This parameter does not need to be set for pay-per-use instances.

Parameter	Mandatory	Type	Description
reserved_ip	No	Array of strings	IP addresses to retain. Mandatory during cluster scale-in. If this parameter is not set, the system randomly deletes unnecessary shards.
change_type	No	String	Modification type. Mandatory when the number of replicas of a master/standby DCS Redis 4.0 or 5.0 instance is modified. ● **createReplication**: adding replicas ● **deleteReplication**: deleting replicas ● **instanceType**: changing the instance type. Currently, you can change a master/standby or read/write splitting DCS Redis 4.0 or 5.0 instance to the Proxy Cluster type, or from Proxy Cluster to master/standby or read/write splitting. Enumeration values: ● **createReplication** ● **deleteReplication** ● **instanceType**
available_zones	No	Array of strings	Code of the AZ where each replica is in. This parameter is mandatory when you add replicas to a master/standby DCS Redis 4.0 or 5.0 instance. Before specifying an AZ, ensure that there are available resources in it. For details, see **Querying AZs**.
node_list	No	Array of strings	ID of the replica to delete. This parameter is mandatory when you delete replicas of a master/standby DCS Redis 4.0 or 5.0 instance. Currently, only one replica can be deleted at a time. For details, see **Querying Details of Shards**.

Parameter	Mandatory	Type	Description
execute_imme diately	No	Boolean	Whether to apply the change immediately. The default value is **true**. ● **true**: Apply the change immediately. ● **false**: Apply the change during the maintenance window.

Table 4-49 BssParamEntity

Parameter	Mandatory	Type	Description
is_auto_pay	No	String	Indicates whether fees are deducted automatically from the account balance. Non-automatic payment is used by default. Values: ● **true**: Fees are automatically deducted from the account balance. ● **false**: The order must be paid manually. This is the default value. Constraints: If this parameter is set to **true**, fees will be automatically deleted from the account balance. To use cash coupons, set this parameter to **false** and go to the Billing Center to make the payment. **If this parameter is set to false, go to Billing Center > Orders to pay for the order after modifying specifications. Otherwise, the order is always pending payment and the instance modification is not considered successful**. Enumeration values: ● **true** ● **false**

Response Parameters

None

Example Requests

```
POST https://{dcs_endpoint}/v2/{project_id}/instances/{instance_id}/resize

{
  "spec_code" : "redis.ha.xu1.tiny.r2.512",
  "new_capacity" : 0.5,
  "bss_param" : {
    "is_auto_pay" : true
  },
  "reserved_ip" : [ "192.168.0.125" ],
  "change_type" : "createReplication",
  "available_zones" : [ "e7afd64502d64fe3bfb60c2c82ec0ec6", "d90ff6d692954373bf53be49cf3900cb" ],
  "node_list" : [ "ff80808282eee5f90183120188ae093e" ],
  "execute_immediately" : true
}
```

Example Responses

None

Status Codes

Status Code	Description
204	DCS instance specifications modified successfully.

Error Codes

See **Error Codes**.

4.2 Parameter Management

4.2.1 Querying DCS Instance Configuration Parameters

Function

This API is used to query the configuration parameters of a DCS instance.

URI

GET /v2/{project_id}/instances/{instance_id}/configs

Table 4-50 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
project_id	Yes	String	Project ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-51 Response body parameters

Parameter	Type	Description
config_time	String	Time when the instance was operated on. For example, 2017-03-31T12:24:46.297Z.
instance_id	String	Instance ID.
redis_config	Array of **QueryRedisConfig** objects	Array of configuration items of the DCS instance.
config_status	String	Instance modification status. ● UPDATING ● FAILURE ● SUCCESS Enumeration values: ● **UPDATING** ● **FAILURE** ● **SUCCESS**
status	String	Instance status.

Table 4-52 QueryRedisConfig

Parameter	Type	Description
param_value	String	Configuration parameter value.
value_type	String	Type of the configuration parameter value.
value_range	String	Range of the configuration parameter value.

Parameter	Type	Description
description	String	Description of the configuration item.
default_value	String	Default value of the configuration parameter.
param_name	String	Configuration parameter name.
param_id	String	Configuration parameter ID.

Status code: 400

Table 4-53 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-54 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

GET https://{dcs_endpoint}/v2/{project_id}/instances/{instance_id}/configs

Example Responses

Status code: 200

Instance configuration parameters queried successfully.

```
{
  "instance_id" : "50829e5a-a4fc-4c01-8651-80be8a491602",
  "config_status" : "SUCCESS",
  "config_time" : "2020-07-06T07:04:31.464Z",
  "redis_config" : {
    "param_id" : "1",
    "param_name" : "timeout",
    "description" : "Close the connection after a client is idle for N seconds (0 to disable)",
    "param_value" : "101",
    "value_range" : "0-7200",
    "value_type" : "Interger",
    "default_value" : "0"
  },
  "status" : "RUNNING"
}
```

Status Codes

Status Code	Description
200	Instance configuration parameters queried successfully.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.2.2 Modifying Configuration Parameters

Function

You can modify the configuration parameters of your DCS instance to optimize DCS performance based on your requirements.

URI

PUT /v2/{project_id}/instances/{instance_id}/configs

Table 4-55 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
project_id	Yes	String	Project ID.

Request Parameters

Table 4-56 Request body parameters

Parameter	Mandatory	Type	Description
redis_config	No	Array of **RedisConfig** objects	Array of configuration items of the DCS instance.

Table 4-57 RedisConfig

Parameter	Mandatory	Type	Description
param_value	Yes	String	Value of the configuration item.
param_name	Yes	String	Configuration item name.
param_id	Yes	String	Configuration item ID.

Response Parameters

Status code: 400

Table 4-58 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-59 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**

Parameter	Type	Description
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
PUT https://{dcs_endpoint}/v2/{project_id}/instances/{instance_id}/configs

{
 "redis_config" : [ {
   "param_id" : 1,
   "param_name" : "timeout",
   "param_value" : 1000
 } ]
}
```

Example Responses

None

Status Codes

Status Code	Description
204	DCS instance configurations modified successfully.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.3 Backup and Restoration

4.3.1 Deleting Backup Files

Function

This API is used to delete the backup files of a DCS instance.

URI

DELETE /v2/{project_id}/instances/{instance_id}/backups/{backup_id}

Table 4-60 Path Parameters

Parameter	Mandatory	Type	Description
backup_id	Yes	String	Backup ID.
instance_id	Yes	String	Instance ID.
project_id	Yes	String	Project ID.

Request Parameters

None

Response Parameters

Status code: 400

Table 4-61 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-62 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**

Parameter	Type	Description
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

DELETE https://{dcs_endpoint}/v2/{project_id}/instances/{instance_id}/backups/{backup_id}

Example Responses

None

Status Codes

Status Code	Description
204	Backup file deleted successfully.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.3.2 Restoring a DCS Instance

Function

This API is used to restore the backup data to a specific DCS instance.

📖 **NOTE**

Only master/standby and cluster DCS instances can be backed up and restored, while single-node instances cannot.

URI

POST /v2/{project_id}/instances/{instance_id}/restores

Table 4-63 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Request Parameters

Table 4-64 Request body parameters

Parameter	Mandatory	Type	Description
backup_id	Yes	String	Backup ID.
remark	No	String	Description of DCS instance restoration.

Response Parameters

Status code: 200

Table 4-65 Response body parameters

Parameter	Type	Description
restore_id	String	ID of the restoration record.

Status code: 400

Table 4-66 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-67 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

POST https://{dcs_endpoint}/v2/{project_id}/instances/{instance_id}/restores

```
{
  "backup_id" : "8ba256cb-e5ac-44f6-a3da-c03d8f0e5029",
  "remark" : "restore instance"
}
```

Example Responses

Status code: 200

Instance restored successfully.

```
{
  "restore_id" : "a6155972-800c-4170-a479-3231e907d2f6"
}
```

Status Codes

Status Code	Description
200	Instance restored successfully.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.3.3 Querying DCS Instance Restoration Records

Function

This API is used to query the restoration records of a specific DCS instance.

URI

GET /v2/{project_id}/instances/{instance_id}/restores

Table 4-68 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
project_id	Yes	String	Project ID.

Table 4-69 Query Parameters

Parameter	Mandatory	Type	Description
begin_time	No	String	Start time of the period to be queried. Format: yyyyMMddHHmmss, for example, 20170718235959.
end_time	No	String	End time of the period to be queried. Format: yyyyMMddHHmmss, for example, 20170718235959.
limit	No	Integer	Number of items displayed on each page.
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-70 Response body parameters

Parameter	Type	Description
restore_record _response	Array of **InstanceRestoreInfo** objects	Array of the restoration records.

Parameter	Type	Description
total_num	Integer	Total number.

Table 4-71 InstanceRestoreInfo

Parameter	Type	Description
backup_id	String	Backup ID.
restore_id	String	ID of the restoration record.
backup_name	String	Backup record name.
updated_at	String	Time when the restoration completed.
restore_remark	String	Description of the restoration.
created_at	String	Time when the restoration task was created.
progress	String	Restoration progress.
error_code	String	Error code displayed for a restoration failure. ● *dcs.08.0001* - Failed to start the backup and restoration tool. ● *dcs.08.0002* - Execution timed out. ● *dcs.08.0003* - Failed to delete the bucket. ● *dcs.08.0004* - Failed to obtain the AK/SK. ● *dcs.08.0005* - Failed to create the bucket. ● *dcs.08.0006* - Failed to query the backup data size. ● *dcs.08.0007* - Failed to synchronize data during restoration. ● *dcs.08.0008* - The scheduled backup task is not running. The instance is running other tasks.
restore_name	String	Name of a restoration record.
backup_remark	String	Description of the backup.

Parameter	Type	Description
status	String	Restoration status. • **waiting**: The task is waiting to begin. • **restoring**: The restoration is in progress. • **succeed**: The restoration is successful. • **failed**: The restoration failed. Enumeration values: • **waiting** • **restoring** • **succeed** • **failed**

Status code: 400

Table 4-72 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
GET https://{dcs_endpoint}/v2/{project_id}/instances/{instance_id}/restores?
offset={offset}&limit={limit}&begin_Time={begin_Time}&end_Time={end_Time}
```

Example Responses

Status code: 200

DCS instance restoration records queried successfully.

```
{
 "restore_record_response" : [ {
   "backup_id" : "f4823e9e-fe9b-4ffd-be79-4e5d6de272bb",
   "restore_id" : "a6155972-800c-4170-a479-3231e907d2f6",
   "backup_name" : "backup_20170718000002",
   "updated_at" : "2017-07-18T21:41:35.182Z",
   "restore_remark" : "doctest",
   "created_at" : "2017-07-18T21:41:20.721Z",
   "progress" : "100.00",
   "error_code" : { },
```

```
  "restore_name" : "restore_20170718214120",
  "backup_remark" : { },
  "status" : "succeed"
} ],
"total_num" : 1
}
```

Status Codes

Status Code	Description
200	DCS instance restoration records queried successfully.
400	Invalid request.

Error Codes

See **Error Codes**.

4.3.4 Obtaining the Backup File URL

Function

This API is used to obtain the download links of backup files.

URI

POST /v2/{project_id}/instances/{instance_id}/backups/{backup_id}/links

Table 4-73 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.
backup_id	Yes	String	Backup ID.

Request Parameters

Table 4-74 Request body parameters

Parameter	Mandatory	Type	Description
expiration	Yes	Integer	Validity period (in seconds) of a URL. The value range is from 5 minutes to 24 hours.

Response Parameters

Status code: 200

Table 4-75 Response body parameters

Parameter	Type	Description
file_path	String	Paths of files in the OBS bucket.
bucket_name	String	Name of the OBS bucket.
links	Array of **LinksItem** objects	Collection of URLs for downloading backup files. A maximum of 64 links are allowed.

Table 4-76 LinksItem

Parameter	Type	Description
file_name	String	Backup file name.
link	String	URL for downloading backup files.

Status code: 400

Table 4-77 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-78 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**

Parameter	Type	Description
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

POST https://{dcs_endpoint}/v2/{project_id}/instances/{instance_id}/backups/{backup_id}/links

Example Responses

Status code: 200

Successfully obtained backup file URLs.

```
{
  "file_path" : "42489641-23c4-4855-bc89-befc85e2b7f7/ddfe5f66-a965-43ff-aec7-f3b489dc071b/",
  "bucket_name" : "bucket5da9cf3bfabc4cae9023695b934e5e2b",
  "links" : [ {
    "file_name" : "redis_192.168.63.250_6379_10923-16383_20190820211816.rdb",
    "link" : "https://bucket5da9cf3bfabc4cae9023695b934e5e2b.obs.cn-east-2.myhuaweicloud.com:
443/42489641-23c4-4855-bc89-befc85e2b7f7/ddfe5f66-a965-43ff-aec7-f3b489dc071b/
redis_192.168.63.250_6379_10923-16383_20190820211816.rdb?
AWSAccessKeyId=VD8CEQNG8VMQODUAAM0D&Expires=1566308915&Signature=s3I%2BrLbo%2BFZw
%2BUsjVere%2FOQdKEg%3D"
  } ]
}
```

Status Codes

Status Code	Description
200	Successfully obtained backup file URLs.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.3.5 Backing Up a DCS Instance

Function

This API is used to back up a specific DCS instance.

☐☐ **NOTE**

Only master/standby and cluster DCS instances can be backed up and restored, while single-node instances cannot.

URI

POST /v2/{project_id}/instances/{instance_id}/backups

Table 4-79 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
project_id	Yes	String	Project ID.

Request Parameters

Table 4-80 Request body parameters

Parameter	Mandatory	Type	Description
remark	No	String	Description of DCS instance backup.
backup_format	No	String	Format of the DCS instance backup. Enumeration values: • **aof** • **rdb**

Response Parameters

Status code: 200

Table 4-81 Response body parameters

Parameter	Type	Description
backup_id	String	Backup ID.

Status code: 400

Table 4-82 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-83 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
POST https://{dcs_endpoint}/v2/{project_id}/instances/{instance_id}/backups

{
  "remake" : "Backup instances",
  "backup_format" : "aof"
}
```

Example Responses

Status code: 200

The specified DCS instance is backed up successfully.

```
{
  "backup_id" : "548ceeff-2cbb-47ab-9a1c-7b085a8c08d7"
}
```

Status Codes

Status Code	Description
200	The specified DCS instance is backed up successfully.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.3.6 Listing DCS Instance Backup Records

Function

This API is used to query the backup records of a specific DCS instance.

URI

GET /v2/{project_id}/instances/{instance_id}/backups

Table 4-84 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
project_id	Yes	String	Project ID.

Table 4-85 Query Parameters

Parameter	Mandatory	Type	Description
begin_time	No	String	Query start time (UTC). Format: yyyyMMddHHmmss, for example, 20170718235959.
end_time	No	String	Query end time (UTC). Format: yyyyMMddHHmmss, for example, 20170718235959.
limit	No	Integer	Number of items displayed on each page.

Parameter	Mandatory	Type	Description
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-86 Response body parameters

Parameter	Type	Description
total_num	Integer	Number of returned records.
backup_record_response	Array of **BackupRecordResponse** objects	Array of the backup details.

Table 4-87 BackupRecordResponse

Parameter	Type	Description
backup_id	String	Backup ID.
period	String	Backup execution time.
backup_name	String	Backup record name.
instance_id	String	Instance ID.
size	Long	Size of the backup file (byte).
backup_type	String	Backup type. ● **manual**: manual backup ● **auto**: automatic backup Enumeration values: ● **manual** ● **auto**
created_at	String	Time when the backup task is created.

Parameter	Type	Description
updated_at	String	Time at which DCS instance backup is completed.
progress	String	Backup progress.
error_code	String	Error code displayed for a backup failure. ● *dcs.08.0001* - Failed to start the backup and restoration tool. ● *dcs.08.0002* - Execution timed out. ● *dcs.08.0003* - Failed to delete the bucket. ● *dcs.08.0004* - Failed to obtain the AK/SK. ● *dcs.08.0005* - Failed to create the bucket. ● *dcs.08.0006* - Failed to query the backup data size. ● *dcs.08.0007* - Failed to synchronize data during restoration. ● *dcs.08.0008* - The scheduled backup task is not running. The instance is running other tasks.
remark	String	Description of DCS instance backup.
status	String	Backup status. The options are as follows: ● **waiting**: The task is waiting to begin. ● **backuping**: DCS instance backup is in progress. ● **succeed**: DCS instance backup succeeded. ● **failed**: DCS instance backup failed. ● **expired**: The backup file has expired. ● **deleted**: The backup file has been deleted manually. Enumeration values: ● **waiting** ● **backuping** ● **succeed** ● **failed** ● **expired** ● **deleted**
is_support_restore	String	Whether restoration is supported. Options: **TRUE** and **FALSE**.

Status code: 400

Table 4-88 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-89 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
GET https://{dcs_endpoint}/v2/{project_id}/instances/{instance_id}/backups?
offset={offset}&limit={limit}&beginTime={begin_Time}&end_time={end_Time}
```

Example Responses

Status code: 200

DCS instance backup records queried successfully.

```
{
  "total_num" : 1,
  "backup_record_response" : [ {
    "period" : { },
    "backup_type" : "manual",
    "created_at" : "2019-05-10T08:31:16.166Z",
    "remark" : "001",
    "is_support_restore" : "TRUE",
    "backup_id" : "4631832a-14c6-45b0-a0b3-3abd8f591ad1",
    "backup_name" : "backup_20190510163116",
    "instance_id" : "5560df16-cebf-4473-95c4-d1b573c16e79",
    "size" : 880232,
    "updated_at" : "2019-05-10T08:32:30.546Z",
```

```
    "progress" : "100.00",
    "error_code" : { },
    "status" : "succeed"
  } ]
}
```

Status Codes

Status Code	Description
200	DCS instance backup records queried successfully.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.4 Cache Analysis

4.4.1 Creating a Big Key Analysis Task

Function

This API is used to create a big key analysis task for a DCS Redis instance.

URI

POST /v2/{project_id}/instances/{instance_id}/bigkey-task

Table 4-90 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-91 Response body parameters

Parameter	Type	Description
id	String	Big key analysis record ID.
instance_id	String	Instance ID.
status	String	Analysis task status. Enumeration values: ● **waiting** ● **running** ● **success** ● **failed**
scan_type	String	Analysis mode. Enumeration values: ● **manual** ● **auto**
created_at	String	Time when an analysis task is created. The format is "2020-06-15T02:21:18.669Z".
started_at	String	Time when an analysis task started. The format is "2020-06-15T02:21:18.669Z". (The value is null and is not returned when the analysis task is being created.)
finished_at	String	Time when an analysis task ended. The format is "2020-06-15T02:21:18.669Z". (The value is null and is not returned when the analysis task is being created.)
num	Integer	Number of big keys.
keys	Array of **BigkeysBody** objects	Big key record. (The value is null and is not returned when the analysis task is being created.)

Table 4-92 BigkeysBody

Parameter	Type	Description
name	String	Key name.

Parameter	Type	Description
type	String	Key type. Enumeration values: • **string** • **list** • **set** • **zset** • **hash**
shard	String	Shard where the big key is located. This parameter is supported only when the instance type is cluster. The format is **ip:port**.
db	Integer	Database where the big key is located.
size	Integer	Size of the key value.
unit	String	Unit of the key size. When the key type is string, the unit is byte. When the key type is list, set, zset, or hash, the unit is count.

Status code: 400

Table 4-93 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-94 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**

Parameter	Type	Description
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-95 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-96 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-97 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
POST https://dcs.cn-south-1.myhuaweicloud.com/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/
5560df16-cebf-4473-95c4-d1b573c16e79/bigkey-task
```

Example Responses

Status code: 200

Big key analysis task created successfully.

```
{
 "id" : "858ee14c-2271-4489-8b82-7bda7459ae3e",
 "instance_id" : "5f9057b5-c330-4ee2-8138-7e69896eeec3",
 "status" : "waiting",
 "scan_type" : "manual",
 "created_at" : "2020-06-15T02:21:18.669Z",
 "num" : 0
}
```

Status code: 400

Invalid request.

```
{
 "error_code" : "DCS.4919",
 "error_msg" : "Does not support bigkey analyze."
}
```

Status Codes

Status Code	Description
200	Big key analysis task created successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.

Status Code	Description
500	Internal service error.

Error Codes

See **Error Codes**.

4.4.2 Listing Big Key Analysis Tasks

Function

This API is used to query the list of big key analysis tasks.

URI

GET /v2/{project_id}/instances/{instance_id}/bigkey-tasks

Table 4-98 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Table 4-99 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.
limit	No	Integer	Number of items displayed on each page.
status	No	String	Analysis task status. Enumeration values: • **waiting** • **running** • **success** • **failed**

Request Parameters

None

Response Parameters

Status code: 200

Table 4-100 Response body parameters

Parameter	Type	Description
instance_id	String	Instance ID.
count	Integer	Total.
records	Array of **RecordsResponse** objects	List of big key analysis record.

Table 4-101 RecordsResponse

Parameter	Type	Description
id	String	Task execution record ID. (This ID corresponds to the task ID in the parameter for querying big key or hot key analysis details.)
status	String	Analysis task status. Enumeration values: • **waiting** • **running** • **success** • **failed**
scan_type	String	Analysis mode. Enumeration values: • **manual** • **auto**
created_at	String	Time when an analysis task is created. The format is "2020-06-15T02:21:18.669Z".
started_at	String	Time when an analysis task started. The format is "2020-06-15T02:21:18.669Z".
finished_at	String	Time when an analysis task ended. The format is "2020-06-15T02:21:18.669Z".

Status code: 400

Table 4-102 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-103 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-104 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-105 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-106 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
GET https://dcs.cn-south-1.myhuaweicloud.com/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/
5560df16-cebf-4473-95c4-d1b573c16e79/bigkey-tasks
```

Example Responses

Status code: 200

Big key analysis records queried successfully.

```
{
  "instance_id" : "5f9057b5-c330-4ee2-8138-7e69896eeec3",
  "count" : 1,
  "records" : [ {
    "id" : "858ee14c-2271-4489-8b82-7bda7459ae3e",
    "scan_type" : "manual",
    "status" : "success",
    "created_at" : "2020-06-15T02:21:18.669Z",
    "started_at" : "2020-06-15T02:21:23.534Z",
    "finished_at" : "2020-06-15T02:21:25.588Z"
  } ]
}
```

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.4919",
  "error_msg" : "Does not support bigkey analyze."
}
```

Status Codes

Status Code	Description
200	Big key analysis records queried successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.4.3 Querying Big Key Analysis Details

Function

This API is used to query the big key analysis details.

URI

GET /v2/{project_id}/instances/{instance_id}/bigkey-task/{bigkey_id}

Table 4-107 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.
bigkey_id	Yes	String	ID of the big key analysis task.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-108 Response body parameters

Parameter	Type	Description
id	String	Big key analysis record ID.
instance_id	String	Instance ID.
status	String	Analysis task status. Enumeration values: ● **waiting** ● **running** ● **success** ● **failed**
scan_type	String	Analysis mode. Enumeration values: ● **manual** ● **auto**
created_at	String	Time when an analysis task is created. The format is "2020-06-15T02:21:18.669Z".
started_at	String	Time when an analysis task started. The format is "2020-06-15T02:21:18.669Z". (The value is null and is not returned when the analysis task is being created.)
finished_at	String	Time when an analysis task ended. The format is "2020-06-15T02:21:18.669Z". (The value is null and is not returned when the analysis task is being created.)
num	Integer	Number of big keys.
keys	Array of **BigkeysBody** objects	Big key record. (The value is null and is not returned when the analysis task is being created.)

Table 4-109 BigkeysBody

Parameter	Type	Description
name	String	Key name.

Parameter	Type	Description
type	String	Key type. Enumeration values: • **string** • **list** • **set** • **zset** • **hash**
shard	String	Shard where the big key is located. This parameter is supported only when the instance type is cluster. The format is **ip:port**.
db	Integer	Database where the big key is located.
size	Integer	Size of the key value.
unit	String	Unit of the key size. When the key type is string, the unit is byte. When the key type is list, set, zset, or hash, the unit is count.

Status code: 400

Table 4-110 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-111 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**

Parameter	Type	Description
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-112 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-113 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-114 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

GET https://dcs.cn-south-1.myhuaweicloud.com/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/5560df16-cebf-4473-95c4-d1b573c16e79/bigkey-task/858ee14c-2271-4489-8b82-7bda7459ae3e

Example Responses

Status code: 200

Big key analysis details queried successfully.

```
{
  "id" : "858ee14c-2271-4489-8b82-7bda7459ae3e",
  "instance_id" : "5f9057b5-c330-4ee2-8138-7e69896eeec3",
  "status" : "success",
  "scan_type" : "manual",
  "created_at" : "2020-06-15T02:21:18.669Z",
  "started_at" : "2020-06-15T02:21:23.534Z",
  "finished_at" : "2020-06-15T02:21:25.588Z",
  "keys" : [ {
    "name" : "dcs-bigkey-test",
    "type" : "string",
    "shard" : "192.168.1.134:6379",
    "db" : 0,
    "size" : 3000,
    "unit" : "byte"
  } ]
}
```

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.4919",
  "error_msg" : "Does not support bigkey analyze."
}
```

Status Codes

Status Code	Description
200	Big key analysis details queried successfully.

Status Code	Description
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.4.4 Deleting a Big Key Analysis Task

Function

This API is used to delete a big key analysis task.

URI

DELETE /v2/{project_id}/instances/{instance_id}/bigkey-task/{bigkey_id}

Table 4-115 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.
bigkey_id	Yes	String	ID of the big key analysis task.

Request Parameters

None

Response Parameters

Status code: 400

Table 4-116 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-117 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-118 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-119 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-120 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

DELETE https://dcs.cn-south-1.myhuaweicloud.com/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/
5560df16-cebf-4473-95c4-d1b573c16e79/bigkey-task/858ee14c-2271-4489-8b82-7bda7459ae3e

Example Responses

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.4919",
  "error_msg" : "Does not support bigkey analyze."
}
```

Status Codes

Status Code	Description
204	Big key analysis task deleted successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.4.5 Configuring Automatic Big Key Analysis

Function

This API is used to configure automatic big key analysis.

URI

PUT /v2/{project_id}/instances/{instance_id}/bigkey/autoscan

Table 4-121 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Request Parameters

Table 4-122 Request body parameters

Parameter	Mandatory	Type	Description
enable_auto_scan	No	Boolean	Whether to enable scheduled cache analysis.
schedule_at	No	Array of strings	UTC time of the day that cache analysis is scheduled for. Example: **21:00**.

Response Parameters

Status code: 200

Table 4-123 Response body parameters

Parameter	Type	Description
instance_id	String	Instance ID.
enable_auto_scan	Boolean	Whether to enable scheduled cache analysis.
schedule_at	Array of strings	UTC time of the day that analysis is scheduled for. Example: **21:00**.
updated_at	String	Time when the configuration is updated. The time format is 2020-06-15T02:21:18.669Z.

Status code: 400

Table 4-124 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-125 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**

Parameter	Type	Description
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-126 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-127 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-128 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
PUT https://dcs.cn-south-1.myhuaweicloud.com/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/
5560df16-cebf-4473-95c4-d1b573c16e79/bigkey/autoscan

{
 "enable_auto_scan" : true,
 "schedule_at" : [ "21:00" ]
}
```

Example Responses

Status code: 200

Big key analysis task configured successfully.

```
{
 "instance_id" : "5f9057b5-c330-4ee2-8138-7e69896eeec3",
 "enable_auto_scan" : true,
 "schedule_at" : [ "21:00" ],
 "updated_at" : "2020-06-17T02:42:40.793Z"
}
```

Status code: 400

Invalid request.

```
{
 "error_code" : "DCS.4919",
 "error_msg" : "Does not support bigkey analyze."
}
```

Status Codes

Status Code	Description
200	Big key analysis task configured successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.

Status Code	Description
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.4.6 Querying the Configurations of Automatic Big Key Analysis

Function

This API is used to query configurations of automatic big key analysis.

URI

GET /v2/{project_id}/instances/{instance_id}/bigkey/autoscan

Table 4-129 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-130 Response body parameters

Parameter	Type	Description
instance_id	String	Instance ID.
enable_auto_scan	Boolean	Whether to enable scheduled cache analysis.
schedule_at	Array of strings	UTC time of the day that analysis is scheduled for. Example: **21:00**.

Parameter	Type	Description
updated_at	String	Time when the configuration is updated. The time format is 2020-06-15T02:21:18.669Z.

Status code: 400

Table 4-131 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-132 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-133 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**

Parameter	Type	Description
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-134 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-135 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

GET https://dcs.cn-south-1.myhuaweicloud.com/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/5560df16-cebf-4473-95c4-d1b573c16e79/bigkey/autoscan

Example Responses

Status code: 200

This API is used to query configurations of automatic big key analysis.

```
{
  "instance_id" : "5f9057b5-c330-4ee2-8138-7e69896eeec3",
  "enable_auto_scan" : true,
  "schedule_at" : [ "21:00" ],
  "updated_at" : "2020-06-17T02:42:40.793Z"
}
```

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.4919",
  "error_msg" : "Does not support bigkey analyze."
}
```

Status Codes

Status Code	Description
200	This API is used to query configurations of automatic big key analysis.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.4.7 Creating a Hot Key Analysis Task

Function

This API is used to create a hot key analysis task. Redis 3.0 does not support hot key analysis.

To perform hot key analysis, the instance's **maxmemory-policy** parameter must be set to **allkeys-lfu** or **volatile-lfu**.

URI

POST /v2/{project_id}/instances/{instance_id}/hotkey-task

Table 4-136 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-137 Response body parameters

Parameter	Type	Description
id	String	Hot key analysis record ID.
instance_id	String	Instance ID.
status	String	Analysis task status. Enumeration values: ● **waiting** ● **running** ● **success** ● **failed**
scan_type	String	Analysis mode. Enumeration values: ● **manual** ● **auto**
created_at	String	Time when an analysis task is created. The format is "2020-06-15T02:21:18.669Z".
started_at	String	Time when an analysis task started. The format is "2020-06-15T02:21:18.669Z". (The value is null and is not returned when the analysis task is being created.)
finished_at	String	Time when an analysis task ended. The format is "2020-06-15T02:21:18.669Z". (The value is null and is not returned when the analysis task is being created.)
num	Integer	Number of hot keys.

Parameter	Type	Description
keys	Array of **HotkeysBody** objects	Hot key record. (The value is null and is not returned when the analysis task is being created.)

Table 4-138 HotkeysBody

Parameter	Type	Description
name	String	Key name.
type	String	Key type. Enumeration values: ● **string** ● **list** ● **set** ● **zset** ● **hash**
shard	String	Shard where the hot key is located. This parameter is supported only when the instance type is cluster. The format is **ip:port**.
db	Integer	Database where the hot key is located.
size	Integer	Size of the key value.
unit	String	Unit of the key size. When the key type is string, the unit is byte. When the key type is list, set, zset, or hash, the unit is count.
freq	Integer	Access frequency of a key within a specific period of time. The value is the logarithmic access frequency counter. The maximum value is 255, which indicates 1 million access requests. After the frequency reaches 255, the value will no longer increase even if access requests continue to increase. The value will decrease by 1 for every minute during which the key is not accessed.

Status code: 400

Table 4-139 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-140 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-141 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-142 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-143 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

POST https://dcs.cn-south-1.myhuaweicloud.com/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/5560df16-cebf-4473-95c4-d1b573c16e79/hotkey-task

Example Responses

Status code: 200

Hot key analysis task created successfully.

```
{
"id" : "aa735b6f-3d70-44e3-9771-66c6fae7459a",
"instance_id" : "5560df16-cebf-4473-95c4-d1b573c16e79",
"status" : "waiting",
"scan_type" : "manual",
"created_at" : "2020-06-15T02:21:18.669Z",
"num" : 0
}
```

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.4922",
  "error_msg" : "Does not support hotkey analyze."
}
```

Status Codes

Status Code	Description
200	Hot key analysis task created successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.4.8 Listing Hot Key Analysis Tasks

Function

This API is used to query the list of hot key analysis tasks.

URI

GET /v2/{project_id}/instances/{instance_id}/hotkey-tasks

Table 4-144 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Table 4-145 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of items displayed on each page.
status	No	String	Analysis task status. Enumeration values: • **waiting** • **running** • **success** • **failed**

Request Parameters

None

Response Parameters

Status code: 200

Table 4-146 Response body parameters

Parameter	Type	Description
instance_id	String	Instance ID.
count	Integer	Total.
records	Array of **RecordsResponse** objects	List of hot key analysis record.

Table 4-147 RecordsResponse

Parameter	Type	Description
id	String	Task execution record ID. (This ID corresponds to the task ID in the parameter for querying big key or hot key analysis details.)
status	String	Analysis task status. Enumeration values: • **waiting** • **running** • **success** • **failed**

Parameter	Type	Description
scan_type	String	Analysis mode. Enumeration values: ● **manual** ● **auto**
created_at	String	Time when an analysis task is created. The format is "2020-06-15T02:21:18.669Z".
started_at	String	Time when an analysis task started. The format is "2020-06-15T02:21:18.669Z".
finished_at	String	Time when an analysis task ended. The format is "2020-06-15T02:21:18.669Z".

Status code: 400

Table 4-148 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-149 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-150 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-151 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-152 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

GET https://dcs.cn-south-1.myhuaweicloud.com/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/
5560df16-cebf-4473-95c4-d1b573c16e79/hotkey-tasks

Example Responses

Status code: 200

Hot key analysis tasks listed successfully.

```
{
  "instance_id" : "5f9057b5-c330-4ee2-8138-7e69896eeec3",
  "count" : 1,
  "records" : [ {
    "id" : "858ee14c-2271-4489-8b82-7bda7459ae3e",
    "scan_type" : "manual",
    "status" : "success",
    "created_at" : "2020-06-15T02:21:18.669Z",
    "started_at" : "2020-06-15T02:21:23.534Z",
    "finished_at" : "2020-06-15T02:21:25.588Z"
  } ]
}
```

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.4922",
  "error_msg" : "Does not support hotkey analyze."
}
```

Status Codes

Status Code	Description
200	Hot key analysis tasks listed successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.4.9 Querying Hot Key Analysis Details

Function

This API is used to query the hot key analysis details.

URI

GET /v2/{project_id}/instances/{instance_id}/hotkey-task/{hotkey_id}

Table 4-153 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.
hotkey_id	Yes	String	ID of the hot key analysis task.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-154 Response body parameters

Parameter	Type	Description
id	String	Hot key analysis record ID.
instance_id	String	Instance ID.
status	String	Analysis task status. Enumeration values: ● **waiting** ● **running** ● **success** ● **failed**
scan_type	String	Analysis mode. Enumeration values: ● **manual** ● **auto**
created_at	String	Time when an analysis task is created. The format is "2020-06-15T02:21:18.669Z".
started_at	String	Time when an analysis task started. The format is "2020-06-15T02:21:18.669Z". (The value is null and is not returned when the analysis task is being created.)

Parameter	Type	Description
finished_at	String	Time when an analysis task ended. The format is "2020-06-15T02:21:18.669Z". (The value is null and is not returned when the analysis task is being created.)
num	Integer	Number of hot keys.
keys	Array of **HotkeysBody** objects	Hot key record. (The value is null and is not returned when the analysis task is being created.)

Table 4-155 HotkeysBody

Parameter	Type	Description
name	String	Key name.
type	String	Key type. Enumeration values: • **string** • **list** • **set** • **zset** • **hash**
shard	String	Shard where the hot key is located. This parameter is supported only when the instance type is cluster. The format is **ip:port**.
db	Integer	Database where the hot key is located.
size	Integer	Size of the key value.
unit	String	Unit of the key size. When the key type is string, the unit is byte. When the key type is list, set, zset, or hash, the unit is count.
freq	Integer	Access frequency of a key within a specific period of time. The value is the logarithmic access frequency counter. The maximum value is 255, which indicates 1 million access requests. After the frequency reaches 255, the value will no longer increase even if access requests continue to increase. The value will decrease by 1 for every minute during which the key is not accessed.

Status code: 400

Table 4-156 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-157 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-158 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-159 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-160 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

GET https://dcs.cn-south-1.myhuaweicloud.com/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/
5560df16-cebf-4473-95c4-d1b573c16e79/hotkey-task/0ccb25d5-27cf-4188-b5ea-987730a85371

Example Responses

Status code: 200

Hot key analysis details queried successfully.

```
{
 "id" : "858ee14c-2271-4489-8b82-7bda7459ae3e",
 "instance_id" : "5f9057b5-c330-4ee2-8138-7e69896eeec3",
 "status" : "success",
 "scan_type" : "manual",
 "created_at" : "2020-06-15T02:21:18.669Z",
 "started_at" : "2020-06-15T02:21:23.534Z",
 "finished_at" : "2020-06-15T02:21:25.588Z",
 "keys" : [ {
  "name" : "dcs-hotkey-test",
  "type" : "string",
  "shard" : "192.168.1.134:6379",
  "db" : 0,
```

```
    "size" : 3000,
    "unit" : "byte",
    "freq" : 4
 } ]
}
```

Status code: 400

Invalid request.

```
{
 "error_code" : "DCS.4922",
 "error_msg" : "Does not support hotkey analyze."
}
```

Status Codes

Status Code	Description
200	Hot key analysis details queried successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.4.10 Deleting a Hot Key Analysis Task

Function

This API is used to delete a hot key analysis task.

URI

DELETE /v2/{project_id}/instances/{instance_id}/hotkey-task/{hotkey_id}

Table 4-161 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.
hotkey_id	Yes	String	ID of the hot key analysis task.

Request Parameters

None

Response Parameters

Status code: 400

Table 4-162 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-163 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-164 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**

Parameter	Type	Description
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-165 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-166 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

DELETE https://dcs.cn-south-1.myhuaweicloud.com/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/
5560df16-cebf-4473-95c4-d1b573c16e79/hotkey-task/0ccb25d5-27cf-4188-b5ea-987730a85371

Example Responses

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.4922",
  "error_msg" : "Does not support hotkey analyze."
}
```

Status Codes

Status Code	Description
204	Hot key analysis record deleted successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.4.11 Configuring Automatic Hot Key Analysis

Function

This API is used to configure automatic hot key analysis.

URI

PUT /v2/{project_id}/instances/{instance_id}/hotkey/autoscan

Table 4-167 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Request Parameters

Table 4-168 Request body parameters

Parameter	Mandatory	Type	Description
enable_auto_scan	No	Boolean	Whether to enable scheduled cache analysis.
schedule_at	No	Array of strings	UTC time of the day that cache analysis is scheduled for. Example: **21:00**.

Response Parameters

Status code: 200

Table 4-169 Response body parameters

Parameter	Type	Description
instance_id	String	Instance ID.
enable_auto_scan	Boolean	Whether to enable scheduled cache analysis.
schedule_at	Array of strings	UTC time of the day that analysis is scheduled for. Example: **21:00**.
updated_at	String	Time when the configuration is updated. The time format is 2020-06-15T02:21:18.669Z.

Status code: 400

Table 4-170 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-171 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-172 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-173 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-174 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
PUT https://dcs.cn-south-1.myhuaweicloud.com/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/
5560df16-cebf-4473-95c4-d1b573c16e79/hotkey/autoscan

{
  "enable_auto_scan" : true,
  "schedule_at" : [ "21:00" ]
}
```

Example Responses

Status code: 200

Automatic hot key analysis configured successfully.

```
{
  "instance_id" : "5f9057b5-c330-4ee2-8138-7e69896eeec3",
  "enable_auto_scan" : true,
  "schedule_at" : [ "21:00" ],
  "updated_at" : "2020-06-17T02:42:40.793Z"
}
```

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.4922",
  "error_msg" : "Does not support hotkey analyze."
}
```

Status Codes

Status Code	Description
200	Automatic hot key analysis configured successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.

Status Code	Description
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.4.12 Querying the Configurations of Automatic Hot Key Analysis

Function

This API is used to query configurations of automatic hot key analysis.

URI

GET /v2/{project_id}/instances/{instance_id}/hotkey/autoscan

Table 4-175 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-176 Response body parameters

Parameter	Type	Description
instance_id	String	Instance ID.
enable_auto_scan	Boolean	Whether to enable scheduled cache analysis.
schedule_at	Array of strings	UTC time of the day that analysis is scheduled for. Example: **21:00**.

Parameter	Type	Description
updated_at	String	Time when the configuration is updated. The time format is 2020-06-15T02:21:18.669Z.

Status code: 400

Table 4-177 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-178 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-179 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**

Parameter	Type	Description
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-180 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-181 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

GET https://dcs.cn-south-1.myhuaweicloud.com/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/
5560df16-cebf-4473-95c4-d1b573c16e79/hotkey/autoscan

Example Responses

Status code: 200

This API is used to query configurations of automatic hot key analysis.

```
{
  "instance_id" : "5f9057b5-c330-4ee2-8138-7e69896eeec3",
  "enable_auto_scan" : true,
  "schedule_at" : [ "21:00" ],
  "updated_at" : "2020-06-17T02:42:40.793Z"
}
```

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.4922",
  "error_msg" : "Does not support hotkey analyze."
}
```

Status Codes

Status Code	Description
200	This API is used to query configurations of automatic hot key analysis.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.5 Data Migration

4.5.1 Creating a Data Migration Task

Function

This API is used to create a data migration task.

URI

POST /v2/{project_id}/migration-task

Table 4-182 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Request Parameters

Table 4-183 Request body parameters

Parameter	Mandatory	Type	Description
task_name	Yes	String	Migration task name.
description	No	String	Migration task description.
migration_type	Yes	String	Mode of the migration. Values: • **backupfile_import**: importing backup files • **online_migration**: migrating data online Enumeration values: • **backupfile_import** • **online_migration**
migration_method	Yes	String	Type of the migration, which can be full migration or incremental migration. Values: • **full_amount_migration**: full migration • **incremental_migration**: incremental migration Enumeration values: • **full_amount_migration** • **incremental_migration**
backup_files	No	**BackupFilesBody** object	Backup files to be imported when the migration mode is backup file import.

Parameter	Mandatory	Type	Description
network_type	No	String	Type of the network for communication between the source and target Redis when the migration mode is online data migration. The network type can VPC or VPN. Enumeration values: • **vpc** • **vpn**
source_instance	No	**SourceInstanceBody** object	Source Redis information. This parameter is mandatory when the migration mode is online data migration.
target_instance	Yes	**TargetInstanceBody** object	Target Redis information.

Table 4-184 BackupFilesBody

Parameter	Mandatory	Type	Description
file_source	No	String	Data source, which can be an OBS bucket or a backup record. Enumeration values: • **self_build_obs** • **backup_record**
bucket_name	Yes	String	Name of the OBS bucket.
files	Yes	Array of **Files** objects	List of backup files to be imported. This parameter is mandatory when the data source is an OBS bucket.
backup_id	No	String	Backup record ID. This parameter is mandatory when the data source is a backup record.

Table 4-185 Files

Parameter	Mandatory	Type	Description
file_name	Yes	String	Name of a backup file.

Parameter	Mandatory	Type	Description
size	No	String	File size in bytes.
update_at	No	String	Time when the file was last modified. The format is YYYY-MM-DD HH:MM:SS.

Table 4-186 SourceInstanceBody

Parameter	Mandatory	Type	Description
addrs	Yes	String	Source Redis name (specified in the **source_instance** parameter).
password	No	String	Redis password. If a password is set, this parameter is mandatory.

Table 4-187 TargetInstanceBody

Parameter	Mandatory	Type	Description
id	Yes	String	Redis instance ID (mandatory in the **target_instance** parameter).
name	No	String	Redis instance name (specified in the **target_instance** parameter).
password	No	String	Redis password. If a password is set, this parameter is mandatory.

Response Parameters

Status code: 200

Table 4-188 Response body parameters

Parameter	Type	Description
id	String	Migration task ID.
name	String	Migration task name.

Parameter	Type	Description
status	String	Migration task status. The value can be **SUCCESS**, **FAILED**, **MIGRATING**, or **TERMINATED**. Enumeration values: • **SUCCESS** • **FAILED** • **MIGRATING** • **TERMINATED**

Status code: 400

Table 4-189 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-190 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-191 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-192 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-193 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
POST https://{dcs_endpoint}/v2/{project_id}/migration-task

{
  "task_name" : "migration1",
  "description" : "Test",
  "migration_type" : "online_migration",
  "migration_method" : "full_amount_migration",
  "network_type" : "vpc",
  "source_instance" : {
    "addrs" : "192.168.1.135:6379",
    "password" : "xxxxxx"
  },
  "target_instance" : {
    "name" : "dcs-test",
    "id" : "4cd5dbb8-aacd-4603-b817-3e97d48c7a20"
  }
}
```

Example Responses

Status code: 200

Data migration task created successfully.

```
{
  "id" : "8aa6999e71cb638b0171f485f5266ef0",
  "name" : "dcs-test",
  "status" : "MIGRATING"
}
```

Status Codes

Status Code	Description
200	Data migration task created successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.5.2 Listing Migration Tasks

Function

This API is used to query the migration task list.

URI

GET /v2/{project_id}/migration-tasks

Table 4-194 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Table 4-195 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.
limit	No	Integer	Number of items displayed on each page.
name	No	String	Name of the migration task.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-196 Response body parameters

Parameter	Type	Description
count	Integer	Number of migration tasks.
migration_tasks	Array of **MigrationTaskList** objects	Migration task list.
target_instance_address	String	Target instance address.
migration_method	String	Type of the migration, which can be full migration or incremental migration. Enumeration values: ● **full_amount_migration** ● **incremental_migration**

Parameter	Type	Description
task_name	String	Name of the migration task.
target_instance_id	String	Target instance ID.
source_instance_name	String	Name of the source instance. If the source Redis is self-hosted, this parameter is left blank.
target_instance_name	String	Target instance name.
migrate_type	String	Mode of the migration, which can be backup file import or online migration. Enumeration values: ● **backupfile_import** ● **online_migration**
created_at	String	Time when the migration task is created.
source_instance_id	String	ID of the source instance. If the source Redis is self-hosted, this parameter is left blank.
task_id	String	Migration task ID.
data_source	String	Source Redis address, which is **ip:port** or a bucket name.
status	String	Migration task status. The value can be **SUCCESS**, **FAILED**, **MIGRATING**, or **TERMINATED**. Enumeration values: ● **SUCCESS** ● **FAILED** ● **MIGRATING** ● **TERMINATED**

Table 4-197 MigrationTaskList

Parameter	Type	Description
task_id	String	Migration task ID.
task_name	String	Migration task name.

Parameter	Type	Description
status	String	Migration task status. The value can be **SUCCESS**, **FAILED**, **MIGRATING**, or **TERMINATED**. Enumeration values: ● **SUCCESS** ● **FAILED** ● **MIGRATING** ● **TERMINATED**
migration_type	String	Mode of the migration, which can be backup file import or online migration. Enumeration values: ● **backupfile_import** ● **online_migration**
migration_method	String	Type of the migration, which can be full migration or incremental migration. Enumeration values: ● **full_amount_migration** ● **incremental_migration**
ecs_tenant_private_ip	String	Private IP address of the migration ECS on the tenant side. This IP address can be added to the whitelist if it is in the same VPC as the private IP address of the target or source Redis.
data_source	String	Source Redis address, which is **ip:port** or a bucket name.
source_instance_name	String	Name of the source instance. If the source Redis is self-hosted, this parameter is left blank.
source_instance_id	String	ID of the source instance. If the source Redis is self-hosted, this parameter is left blank.
target_instance_addrs	String	Target Redis address. The format is **ip:port**.
target_instance_name	String	Target instance name.
target_instance_id	String	Target instance ID.
created_at	String	Time when the migration task is created.

Status code: 400

Table 4-198 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-199 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-200 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-201 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-202 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
GET https://dcs.cn-north-7.myhuaweicloud.com/v2/666486c2d9b948c1bbea57e714d744fa/migration-tasks?
offset=0&limit=10&name=dcs-migration-i9qk
```

Example Responses

Status code: 200

Querying the migration task list.

```
{
 "task_id" : "2944a563-6f27-4604-9c16-a9a53cd95cc7",
 "task_name" : "dcs-migration-test-6-16",
 "status" : "TERMINATED",
 "migrate_type" : "online_migration",
 "migration_method" : "incremental_migration",
 "data_source" : "192.168.0.200:6379",
 "source_instance_name" : "migration-resource",
 "source_instance_id" : "132e0017-715b-4556-930a-95c7db7e8f7a",
 "target_instance_addrs" : "192.168.0.153:6379",
 "target_instance_name" : "migration-target",
 "target_instance_id" : "eb1a8d1c-9ea6-4fcd-ac43-c3d3c2493f06",
```

```
"created_at" : "2021-06-16T06:12:55.508Z"
}
```

Status Codes

Status Code	Description
200	Querying the migration task list.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.5.3 Deleting Data Migration Tasks

Function

This API is used to delete data migration tasks.

URI

DELETE /v2/{project_id}/migration-tasks/delete

Table 4-203 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Request Parameters

Table 4-204 Request body parameters

Parameter	Mandatory	Type	Description
task_id_list	Yes	Array of strings	List of IDs of the migration tasks to be deleted.

Response Parameters

Status code: 200

Table 4-205 Response body parameters

Parameter	Type	Description
task_id_list	Array of strings	List of IDs of the migration tasks to be deleted.

Status code: 400

Table 4-206 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-207 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-208 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-209 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-210 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
DELETE https://dcs.cn-north-7.myhuaweicloud.com/v2/666486c2d9b948c1bbea57e714d744fa/migration-tasks/delete

{
  "task_id_list" : [ "2fb6b7e2-5eb8-4380-9d60-ce8d12b19aca" ]
}
```

Example Responses

Status code: 200

Data migration task deleted successfully.

```
{
  "task_id_list" : [ "2fb6b7e2-5eb8-4380-9d60-ce8d12b19aca" ]
}
```

Status Codes

Status Code	Description
200	Data migration task deleted successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.5.4 Querying Details of a Data Migration Task

Function

This API is used to query migration task details.

URI

GET /v2/{project_id}/migration-task/{task_id}

Table 4-211 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Parameter	Mandatory	Type	Description
task_id	Yes	String	Task ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-212 Response body parameters

Parameter	Type	Description
task_id	String	Migration task ID.
task_name	String	Migration task name.
description	String	Migration task description.
status	String	Migration task status. The value can be **SUCCESS**, **FAILED**, **MIGRATING**, or **TERMINATED**. Enumeration values: ● **SUCCESS** ● **FAILED** ● **MIGRATING** ● **TERMINATED**
migration_type	String	Mode of the migration, which can be backup file import or online migration. Enumeration values: ● **backupfile_import** ● **online_migration**
migration_method	String	Type of the migration, which can be full migration or incremental migration. Enumeration values: ● **full_amount_migration** ● **incremental_migration**
ecs_tenant_private_ip	String	Private IP address of the migration ECS on the tenant side. This IP address can be added to the whitelist if it is in the same VPC as the private IP address of the target or source Redis.

Parameter	Type	Description
backup_files	**BackupFilesBody** object	Backup files to be imported when the migration mode is backup file import.
network_type	String	Network type, which can be VPC or VPN. Enumeration values: ● **vpc** ● **vpn**
source_instance	**SourceInstanceBody** object	Source Redis information. This parameter is mandatory for online migration.
target_instance	**TargetInstanceBody** object	Target Redis instance information.
created_at	String	Time when the migration task is created.
updated_at	String	Time when the migration task is complete.

Table 4-213 BackupFilesBody

Parameter	Type	Description
file_source	String	Data source, which can be an OBS bucket or a backup record. Enumeration values: ● **self_build_obs** ● **backup_record**
bucket_name	String	Name of the OBS bucket.
files	Array of **Files** objects	List of backup files to be imported. This parameter is mandatory when the data source is an OBS bucket.
backup_id	String	Backup record ID. This parameter is mandatory when the data source is a backup record.

Table 4-214 Files

Parameter	Type	Description
file_name	String	Name of a backup file.
size	String	File size in bytes.
update_at	String	Time when the file was last modified. The format is YYYY-MM-DD HH:MM:SS.

Table 4-215 SourceInstanceBody

Parameter	Type	Description
addrs	String	Source Redis name (specified in the **source_instance** parameter).
password	String	Redis password. If a password is set, this parameter is mandatory.

Table 4-216 TargetInstanceBody

Parameter	Type	Description
id	String	Redis instance ID (mandatory in the **target_instance** parameter).
name	String	Redis instance name (specified in the **target_instance** parameter).
password	String	Redis password. If a password is set, this parameter is mandatory.

Status code: 400

Table 4-217 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-218 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**

Parameter	Type	Description
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-219 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-220 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-221 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
GET https://dcs.cn-south-1.myhuaweicloud.com/v2/254d2280acb74d36a8b839746bcd7352 /migration-task/
a276c1ffa0a54c2597fc824b917db317
```

Example Responses

Status code: 200

Details of a data migration task queried successfully.

```
{
  "task_name" : "migration1",
  "task_id" : "a276c1ffa0a54c2597fc824b917db317",
  "status" : "MIGRATING",
  "migration_type" : "incremental_migration",
  "network_type" : "vpc",
  "source_instance" : {
    "addrs" : "192.168.1.2:6379"
  },
  "target_instance" : {
    "id" : "86157b69-8a62-47f9-8c55-fa6ddc8927ee",
    "name" : "test-instance"
  },
  "created_at" : "2019/10/22 14:44:30",
  "updated_at" : "2019/10/22 18:00:00"
}
```

Status Codes

Status Code	Description
200	Details of a data migration task queried successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.5.5 Stopping a Data Migration Task

Function

This API is used to stop a data migration task.

URI

POST /v2/{project_id}/migration-task/{task_id}/stop

Table 4-222 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
task_id	Yes	String	Task ID

Request Parameters

None

Response Parameters

Status code: 200

Table 4-223 Response body parameters

Parameter	Type	Description
task_id	String	Migration task ID.
task_name	String	Migration task name.
description	String	Migration task description.
status	String	Migration task status. The value can be **SUCCESS**, **FAILED**, **MIGRATING**, or **TERMINATED**. Enumeration values: • **SUCCESS** • **FAILED** • **MIGRATING** • **TERMINATED**

Parameter	Type	Description
migration_typ e	String	Mode of the migration, which can be backup file import or online migration. Enumeration values: ● **backupfile_import** ● **online_migration**
migration_me thod	String	Type of the migration, which can be full migration or incremental migration. Enumeration values: ● **full_amount_migration** ● **incremental_migration**
ecs_tenant_pri vate_ip	String	Private IP address of the migration ECS on the tenant side. This IP address can be added to the whitelist if it is in the same VPC as the private IP address of the target or source Redis.
backup_files	**BackupFilesB ody** object	Backup files to be imported when the migration mode is backup file import.
network_type	String	Network type, which can be VPC or VPN. Enumeration values: ● **vpc** ● **vpn**
source_instan ce	**SourceInstan ceBody** object	Source Redis information. This parameter is mandatory for online migration.
target_instanc e	**TargetInstan ceBody** object	Target Redis instance information.
created_at	String	Time when the migration task is created.
updated_at	String	Time when the migration task is complete.

Table 4-224 BackupFilesBody

Parameter	Type	Description
file_source	String	Data source, which can be an OBS bucket or a backup record. Enumeration values: ● **self_build_obs** ● **backup_record**
bucket_name	String	Name of the OBS bucket.

Parameter	Type	Description
files	Array of **Files** objects	List of backup files to be imported. This parameter is mandatory when the data source is an OBS bucket.
backup_id	String	Backup record ID. This parameter is mandatory when the data source is a backup record.

Table 4-225 Files

Parameter	Type	Description
file_name	String	Name of a backup file.
size	String	File size in bytes.
update_at	String	Time when the file was last modified. The format is YYYY-MM-DD HH:MM:SS.

Table 4-226 SourceInstanceBody

Parameter	Type	Description
addrs	String	Source Redis name (specified in the **source_instance** parameter).
password	String	Redis password. If a password is set, this parameter is mandatory.

Table 4-227 TargetInstanceBody

Parameter	Type	Description
id	String	Redis instance ID (mandatory in the **target_instance** parameter).
name	String	Redis instance name (specified in the **target_instance** parameter).
password	String	Redis password. If a password is set, this parameter is mandatory.

Status code: 400

Table 4-228 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-229 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-230 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-231 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-232 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

POST https://dcs.cn-north-7.myhuaweicloud.com/v2/666486c2d9b948c1bbea57e714d744fa/migration-task/2fb6b7e2-5eb8-4380-9d60-ce8d12b19aca/stop

Example Responses

Status code: 200

Data migration task stopped successfully.

```
{
 "task_name" : "migration1",
 "task_id" : "a276c1ffa0a54c2597fc824b917db317",
 "status" : "TERMINATING",
 "migration_type" : "incremental_migration",
 "network_type" : "vpc",
 "source_instance" : {
   "addrs" : "192.168.1.2:6379"
 },
 "target_instance" : {
   "id" : "86157b69-8a62-47f9-8c55-fa6ddc8927ee",
   "name" : "test-instance"
 },
```

```
"created_at" : "2019/10/22 14:44:30",
"updated_at" : "2019/10/22 18:00:00"
}
```

Status Codes

Status Code	Description
200	Data migration task stopped successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.5.6 Querying the Progress of an Online Migration Task

Function

This API is used to query progress details about an online migration task.

URI

GET /v2/{project_id}/migration-task/{task_id}/stats

Table 4-233 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
task_id	Yes	String	Task ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-234 Response body parameters

Parameter	Type	Description
full_migration _progress	String	Percentage of the full migration progress.
offset	String	Incremental migration offset.
source_dbsize	String	Number of keys in the source Redis.
target_dbsize	String	Number of keys in the target Redis.
target_input_ kbps	String	Key write traffic of the target Redis, in KB/s.
target_ops	String	Number of concurrent operations per second on the target Redis.
is_migrating	Boolean	Whether the migration task is in progress.

Status code: 400

Table 4-235 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-236 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**

Parameter	Type	Description
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-237 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-238 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-239 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
https://dcs.cn-north-7.myhuaweicloud.com/v2/666486c2d9b948c1bbea57e714d744fa/migration-task/
31c6fd2b-2893-430b-90ff-d1adb8060585/stats
```

Example Responses

Status code: 200

Progress of the online migration task queried successfully.

```
{
  "full_migration_progress" : 100,
  "offset" : 100,
  "source_dbsize" : 531221,
  "target_dbsize" : 531211,
  "target_input_kbps" : 50,
  "target_ops" : 5300,
  "is_migrating" : true
}
```

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.4133",
  "error_msg" : "Instance job is not found."
}
```

Status Codes

Status Code	Description
200	Progress of the online migration task queried successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.

Status Code	Description
500	Internal service error.

Error Codes

See **Error Codes**.

4.5.7 Creating an Online Data Migration Task

Function

This API is used to create an online data migration task.

URI

POST /v2/{project_id}/migration/instance

Table 4-240 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Request Parameters

Table 4-241 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the online migration task.
description	No	String	Description of the online migration task.
vpc_id	Yes	String	VPC ID. Log in to the VPC console, and click the name of a VPC to view the VPC ID on the displayed details page.

Parameter	Mandatory	Type	Description
subnet_id	Yes	String	Subnet network ID. Log in to the VPC console and click the target subnet on the **Subnets** page. You can view the network ID on the displayed page.
security_group_id	Yes	String	ID of the security group to which the instance belongs. A security group implements access control for associated ECSs, improving security. You can define different access rules for a security group to protect the VMs that are added to this security group. Log in to the VPC console and choose **Access Control** > **Security Groups**. You can create and configure a security group, and obtain the security group ID.

Response Parameters

Status code: 200

Table 4-242 Response body parameters

Parameter	Type	Description
instance_id	String	Online migration task ID.

Status code: 400

Table 4-243 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**

Parameter	Type	Description
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-244 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-245 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-246 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-247 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
POST https://{dcs_endpoint}/v2/{project_id}/migration/instance

{
  "name" : "dcs-migration-thrc",
  "description" : "Creating an online data migration task",
  "vpc_id" : "5e37b3be-950a-48e1-b498-65b63d336481",
  "subnet_id" : "40f15ed6-7f85-49d5-ba0e-65b940d4812c",
  "security_group_id" : "9df96622-24b7-4813-84b8-ab74552a21d7"
}
```

Example Responses

Status code: 200

Online data migration task created.

```
{
  "instance_id" : "b21989ec-2889-4b8e-99db-19c073425ec2"
}
```

Status Codes

Status Code	Description
200	Online data migration task created.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.5.8 Configuring an Online Data Migration Task

Function

This API is used to configure an online data migration task.

URI

POST /v2/{project_id}/migration/{task_id}/task

Table 4-248 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
task_id	Yes	String	Online migration task ID.

Request Parameters

Table 4-249 Request body parameters

Parameter	Mandatory	Type	Description
migration_me thod	Yes	String	Type of the migration, which can be full migration or incremental migration. ● Full migration: Suitable for scenarios where services can be interrupted. Data is migrated at one time. Source instance data updated during full migration will not be migrated to the target instance. ● Incremental migration: Suitable for scenarios requiring minimal service downtime. The incremental migration parses logs to ensure data consistency between the source and target instances. Value options are as follows: ● **full_amount_migration**: full migration ● **incremental_migration**: incremental migration Enumeration values: ● **full_amount_migration** ● **incremental_migration**

Parameter	Mandatory	Type	Description
resume_mode	Yes	String	Reconnection mode. In automatic reconnection mode, if the source and target instances are disconnected due to network exceptions, automatic reconnections will be performed indefinitely. Full synchronization will be triggered and requires more bandwidth if incremental synchronization becomes unavailable. Exercise caution when enabling this option. Values: ● **auto**: automatically reconnect. ● **manual**: manually reconnect. Enumeration values: ● **auto** ● **manual**
bandwidth_limit_mb	No	String	"Bandwidth limit. For incremental migration, you can limit the bandwidth to ensure smooth service running. When the data synchronization speed reaches the limit, it can no longer increase. ● Unit: MB/s ● Value range: an integer from 1 to 10,241
source_instance	Yes	**ConfigMigrationInstanceBody** object	Source Redis information.
target_instance	Yes	**ConfigMigrationInstanceBody** object	Target Redis information.

Table 4-250 ConfigMigrationInstanceBody

Parameter	Mandatory	Type	Description
id	No	String	Redis instance ID. (If **addrs** is not set, **id** must be set.)

Parameter	Mandatory	Type	Description
addrs	No	String	Redis instance address. (If **id** is not set, **addrs** must be set.)
password	No	String	Redis password. If a password is set, this parameter is mandatory.

Response Parameters

Status code: 200

Table 4-251 Response body parameters

Parameter	Type	Description
id	String	Migration task ID.
name	String	Migration task name.
status	String	Migration task status. The value can be **SUCCESS**, **FAILED**, **MIGRATING**, or **TERMINATED**. Enumeration values: ● **SUCCESS** ● **FAILED** ● **MIGRATING** ● **TERMINATED**

Status code: 400

Table 4-252 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-253 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-254 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-255 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-256 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
POST https://{dcs_endpoint}/v2/{project_id}/migration/{task_id}/task

{
 "migration_method" : "incremental_migration",
 "bandwidth_limit_mb" : 123,
 "resume_mode" : "auto",
 "source_instance" : {
  "id" : null,
  "addrs" : "192.168.1.1:6379,192.168.0.0:6379",
  "password" : "xxxxxx"
 },
 "target_instance" : {
  "id" : "cf4a05df-1c38-47c5-bb5a-0a7b3673b3bd",
  "addrs" : null,
  "password" : null
 }
}
```

Example Responses

Status code: 200

Online data migration task configured.

```
{
 "id" : "90754308-a156-406f-a837-8f852f38a646",
 "name" : "dcs-migration-1db7",
 "status" : "FULLMIGRATING"
}
```

Status Codes

Status Code	Description
200	Online data migration task configured.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.

Status Code	Description
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.5.9 Stopping Data Migration Tasks

Function

This API is used to stop data migration tasks in batches. If a success response is returned, the request is successfully delivered. The migration tasks are stopped only when their status is **TERMINATED**.

URI

POST /v2/{project_id}/migration-task/batch-stop

Table 4-257 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Request Parameters

Table 4-258 Request body parameters

Parameter	Mandatory	Type	Description
migration_tasks	Yes	Array of strings	Data migration task list.

Response Parameters

Status code: 200

Table 4-259 Response body parameters

Parameter	Type	Description
migration_tas ks	Array of **StopMigratio nTaskResult** objects	Data migration task list.

Table 4-260 StopMigrationTaskResult

Parameter	Type	Description
result	String	Result of delivering the request for stopping migration tasks. Enumeration values: • **success** • **failed**
task_id	String	ID of the data migration task.

Status code: 400

Table 4-261 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-262 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**

Parameter	Type	Description
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-263 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-264 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-265 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

POST https://{dcs_endpoint}/v2/{project_id}/migration-task/batch-stop

```
{
  "migration_tasks" : [ "b21989ec-2889-4b8e-99db-19c073425ec2", "5130d57f-640a-435b-
bc3a-0fb1860a5340" ]
}
```

Example Responses

Status code: 200

"Migration tasks are being stopped.

📖 NOTE

The migration tasks are stopped when their status is **TERMINATED**.

```
{
  "migration_tasks" : [ {
    "result" : "success",
    "task_id" : "b21989ec-2889-4b8e-99db-19c073425ec2"
  }, {
    "result" : "failed",
    "task_id" : "5130d57f-640a-435b-bc3a-0fb1860a5340"
  } ]
}
```

Status code: 400

Invalid request.

```
{
  "error_msg" : "invalid migration task id in the request.",
  "error_code" : "DCS.4855"
}
```

Status Codes

Status Code	Description
200	"Migration tasks are being stopped. **NOTE** The migration tasks are stopped when their status is **TERMINATED**.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.5.10 Stopping Synchronization of a Data Migration Task

Function

This API is used to stop synchronization of a data migration task.

URI

POST /v2/{project_id}/migration-task/{task_id}/sync-stop

Table 4-266 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
task_id	Yes	String	Task ID.

Request Parameters

None

Response Parameters

Status code: 400

Table 4-267 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-268 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-269 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-270 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-271 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

None

Example Responses

None

Status Codes

Status Code	Description
204	Synchronization of a data migration task stopped successfully.
400	Invalid request.
401	Invalid authentication information.

Status Code	Description
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.5.11 Querying Instance tenant-sync

Function

This API is used to query instance tenant-sync.

URI

GET /v2/{project_id}/tenant-sync/{instance_id}

Table 4-272 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-273 Response body parameters

Parameter	Type	Description
sync_enabled	Boolean	Whether TenantSync is enabled.

Status code: 400

Table 4-274 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-275 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
GET https://{dcs_endpoint}/v2/{project_id}/tenant-sync/{instance_id}
```

Example Responses

Status code: 200

Instance tenant-sync queried.

```
{
  "sync_enabled" : true
}
```

Status code: 500

Internal service error.

```
{
  "error_msg" : "Internal service error.",
  "error_code" : "DCS.5000",
  "error_ext_msg" : null
}
```

Status Codes

Status Code	Description
200	Instance tenant-sync queried.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.5.12 Modifying Instance tenant-sync

Function

This API is used to modify instance tenant-sync.

URI

PUT /v2/{project_id}/tenant-sync/{instance_id}

Table 4-276 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Request Parameters

Table 4-277 Request body parameters

Parameter	Mandatory	Type	Description
enabled	No	Boolean	Enable or disable TenantSync.

Response Parameters

Status code: 400

Table 4-278 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-279 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

None

Example Responses

Status code: 500

Internal service error.

```
{
  "error_msg" : "Internal service error.",
  "error_code" : "DCS.5000",
  "error_ext_msg" : null
}
```

Status Codes

Status Code	Description
204	Instance tenant-sync modified.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.6 Shards and Replicas

4.6.1 Configuring Replica Priority

Function

This API is used to configure the replica priority. When the master node is faulty, a replica with a smaller weight has a higher priority to be promoted to master.

URI

POST /v2/{project_id}/instances/{instance_id}/groups/{group_id}/replications/{node_id}/slave-priority

Table 4-280 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.
group_id	Yes	String	Shard ID.
node_id	Yes	String	Node ID.

Request Parameters

Table 4-281 Request body parameters

Parameter	Mandatory	Type	Description
slave_priority_weight	Yes	Integer	Replica priority. The value ranges from 0 to 100. Value **0** indicates that the promotion is disabled by default.

Response Parameters

Status code: 400

Table 4-282 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-283 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-284 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-285 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-286 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
POST https://{dcs_endpoint}/v2/{project_id}/instance/{instance_id}/groups/{group_id}/replications/{node_id}/
slave-priority

{
  "slave_priority_weight" : 100
}
```

Example Responses

None

Status Codes

Status Code	Description
204	Replica priority configured successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.6.2 Removing the IP Address

Function

This API is used to remove the IP address of a read replica from the domain name. After the removal, the read-only domain name will not be resolved to the IP address.

URI

DELETE /v2/{project_id}/instances/{instance_id}/groups/{group_id}/replications/{node_id}/remove-ip

Table 4-287 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Parameter	Mandatory	Type	Description
group_id	Yes	String	Shard ID.
node_id	Yes	String	Node ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-288 Response body parameters

Parameter	Type	Description
job_id	String	ID of the IP address removing task.

Status code: 400

Table 4-289 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-290 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**

Parameter	Type	Description
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-291 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-292 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-293 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

POST https://{dcs_endpoint}/v2/{project_id}/instance/{instance_id}/groups/{group_id}/replications/{node_id}/remove-ip

Example Responses

None

Status Codes

Status Code	Description
200	IP address removed successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.6.3 Querying Details of Shards

Function

This API is used to query shards and replicas of cluster instances.

URI

GET /v2/{project_id}/instance/{instance_id}/groups

Table 4-294 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-295 Response body parameters

Parameter	Type	Description
group_list	Array of **InstanceGroupListInfo** objects	Shard list.
group_count	Integer	Total number of shards in the instance.

Table 4-296 InstanceGroupListInfo

Parameter	Type	Description
group_id	String	Shard ID.
group_name	String	Shard name.
replication_list	Array of **InstanceReplicationListInfo** objects	List of replicas in the shard.

Table 4-297 InstanceReplicationListInfo

Parameter	Type	Description
replication_role	String	Role of the replica. Options: ● **master**: master ● **slave**: replica
replication_ip	String	Replica IP address.
is_replication	Boolean	Whether the replica is a newly added one.
replication_id	String	Replica ID.
node_id	String	Node ID.
status	String	Replica status. Enumeration values: ● **Active** ● **Inactive**
az_code	String	AZ where the replica is in.
dimensions	Array of **InstanceReplicationDimensionsInfo** objects	Monitoring metric dimension of the replica used to call the Cloud Eye API for querying monitoring metrics. ● Replica monitoring is multi-dimensional. The returned array contains information about two dimensions. When querying monitoring data from Cloud Eye, transfer parameters of multiple dimensions to obtain the metric data. ● The first dimension is the primary dimension of the replica. The dimension name is **dcs_instance_id**, and the dimension value corresponds to the ID of the instance to which the replica belongs. ● The name of the second dimension is **dcs_cluster_redis_node**, and the dimension value is the monitored object ID of the replica, which is different from the replica ID or node ID.

Table 4-298 InstanceReplicationDimensionsInfo

Parameter	Type	Description
name	String	Monitoring dimension name.
value	String	Dimension value.

Status code: 500

Table 4-299 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 400

Table 4-300 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
GET https://{dcs_endpoint}/v2/{project_id}/instance/{instance_id}/groups
```

Example Responses

Status code: 200

Details of shards and replicas queried successfully.

```
{
  "group_list" : [ {
    "group_id" : "35e1bed6-7de5-4898-9eb2-c362c783df15",
    "group_name" : "group-0",
    "replication_list" : [ {
      "az_code" : "xxxxxx",
      "is_replication" : false,
      "node_id" : "8abfa7aa73291f15017329e1cda0002d",
      "replication_id" : "dfbd3f84-08bc-42f0-b538-01d03e6dc178",
      "replication_ip" : "192.168.76.25",
      "replication_role" : "master",
```

```
      "status" : "Active",
      "dimensions" : [ {
        "name" : "dcs_instance_id",
        "value" : "caf2d19f-7783-44b0-be46-8c9da3ef1e94"
      }, {
        "name" : "dcs_cluster_redis_node",
        "value" : "8263dc69629c5b2d840e9816fa9c6200"
      } ]
    }, {
      "az_code" : "cn-north-4b",
      "is_replication" : false,
      "node_id" : "8abfa7aa73291f15017329e1cdb0002e",
      "replication_id" : "63d4c880-7050-464f-ab19-c8a297474d7d",
      "replication_ip" : "192.168.78.207",
      "replication_role" : "slave",
      "status" : "Active",
      "dimensions" : [ {
        "name" : "dcs_instance_id",
        "value" : "caf2d19f-7783-44b0-be46-8c9da3ef1e94"
      }, {
        "name" : "dcs_cluster_redis_node",
        "value" : "8263dc69629c5b2d840e9816fa9c6201"
      } ]
    } ]
  }, {
    "group_id" : "579a281f-6e63-4822-b0c7-e45c44b7c807",
    "group_name" : "group-1",
    "replication_list" : [ {
      "az_code" : "cn-north-4b",
      "is_replication" : false,
      "node_id" : "8abfa7aa73291f15017329e1cdbd002f",
      "replication_id" : "6284c192-48d1-462b-8fd9-45dad067c1a2",
      "replication_ip" : "192.168.73.164",
      "replication_role" : "master",
      "status" : "Active",
      "dimensions" : [ {
        "name" : "dcs_instance_id",
        "value" : "caf2d19f-7783-44b0-be46-8c9da3ef1e94"
      }, {
        "name" : "dcs_cluster_redis_node",
        "value" : "8263dc69629c5b2d840e9816fa9c6202"
      } ]
    }, {
      "az_code" : "xxxxxx",
      "is_replication" : false,
      "node_id" : "8abfa7aa73291f15017329e1cdc80030",
      "replication_id" : "b927de3b-42f3-45b5-b0e4-8547f0ef6727",
      "replication_ip" : "192.168.77.172",
      "replication_role" : "slave",
      "status" : "Active",
      "dimensions" : [ {
        "name" : "dcs_instance_id",
        "value" : "caf2d19f-7783-44b0-be46-8c9da3ef1e94"
      }, {
        "name" : "dcs_cluster_redis_node",
        "value" : "8263dc69629c5b2d840e9816fa9c6203"
      } ]
    } ]
  }, {
    "group_id" : "c17305c6-6651-42d9-86bf-5a6087076eb7",
    "group_name" : "group-2",
    "replication_list" : [ {
      "az_code" : "xxxxxx",
      "is_replication" : false,
      "node_id" : "8abfa7aa73291f15017329e1cdd90031",
      "replication_id" : "caa6636d-a5c1-43b8-990a-3dc134da4522",
      "replication_ip" : "192.168.76.143",
      "replication_role" : "master",
      "status" : "Active",
```

```
    "dimensions" : [ {
      "name" : "dcs_instance_id",
      "value" : "caf2d19f-7783-44b0-be46-8c9da3ef1e94"
    }, {
      "name" : "dcs_cluster_redis_node",
      "value" : "8263dc69629c5b2d840e9816fa9c6204"
    } ]
  }, {
    "az_code" : "xxxxxx",
    "is_replication" : false,
    "node_id" : "8abfa7aa73291f15017329e1cde50032",
    "replication_id" : "4f46790d-a0b0-4a1b-aa02-1c554fccf62d",
    "replication_ip" : "192.168.72.66",
    "replication_role" : "slave",
    "status" : "Active",
    "dimensions" : [ {
      "name" : "dcs_instance_id",
      "value" : "caf2d19f-7783-44b0-be46-8c9da3ef1e94"
    }, {
      "name" : "dcs_cluster_redis_node",
      "value" : "8263dc69629c5b2d840e9816fa9c6205"
    } ]
  } ]
} ],
"group_count" : 3
}
```

Status Codes

Status Code	Description
200	Details of shards and replicas queried successfully.
500	Internal service error.
400	Invalid request.

Error Codes

See **Error Codes**.

4.6.4 Querying Instance Nodes in Batches

Function

This API is used to query the node information, number of valid instances, and number of nodes of all instances in a specified project. No node information will be returned when instances are being created. Only DCS Redis 4.0 and 5.0 instances can be queried.

Constraints

Only DCS Redis 4.0 and 5.0 instances can be queried.

URI

GET /v2/{project_id}/instances-logical-nodes

Table 4-301 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Table 4-302 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.
limit	No	Integer	Number of items displayed on each page. The maximum value is **1000***. If this parameter is not specified, 10 items are displayed on each page by default.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-303 Response body parameters

Parameter	Type	Description
count	Integer	Total number of instances in the query result.
instances	Array of **InstanceNodesInfoResp** objects	Instance list.

Table 4-304 InstanceNodesInfoResp

Parameter	Type	Description
instance_id	String	Instance ID.
node_count	Integer	Total number of nodes of the current instance.

Parameter	Type	Description
nodes	Array of **NodesInfoResp** objects	Node details.

Table 4-305 NodesInfoResp

Parameter	Type	Description
logical_node_id	String	Logical node ID.
name	String	Node name.
status	String	Node status. The value can be: • **Creating** • **Active**: running • **Inactive**: faulty • **Deleting** • **AddSharding**: Shards are being added. Enumeration values: • **Creating** • **Active** • **Inactive** • **Deleting** • **AddSharding**
az_code	String	AZ code.
node_role	String	Node type. The value can be: • **redis-server**: Redis server node. • **redis-proxy**: proxy node. Enumeration values: • **redis-server** • **redis-proxy**
node_type	String	Node role. The value can be: • **master** • **slave** • **proxy**: node of a Proxy Cluster instance. Enumeration values: • **master** • **slave** • **proxy**

Parameter	Type	Description
node_ip	String	Node IP address.
node_port	String	Node port.
node_id	String	Node ID.
priority_weight	Integer	Node weight.
is_access	Boolean	Whether the IP address of the node can be directly accessed.
group_id	String	Shard ID.
group_name	String	Shard name.
is_remove_ip	Boolean	Whether the IP address is removed from the read-only domain name.
replication_id	String	Replica ID.
dimensions	Array of **InstanceReplicationDimensionsInfo** objects	Monitoring metric dimension of the replica used to call the Cloud Eye API for querying monitoring metrics. ● Replica monitoring is multi-dimensional. The returned array contains information about two dimensions. When querying monitoring data from Cloud Eye, transfer parameters of multiple dimensions to obtain the metric data. ● The first dimension is the primary dimension of the replica. The dimension name is **dcs_instance_id**, and the dimension value is the ID of the instance where the replica is located. ● The name of the second dimension is **dcs_cluster_redis_node**, and the dimension value is the monitored object ID of the replica, which is different from the replica ID or node ID.

Table 4-306 InstanceReplicationDimensionsInfo

Parameter	Type	Description
name	String	Monitoring dimension name.
value	String	Dimension value.

Status code: 500

Table 4-307 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 400

Table 4-308 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

GET https://{dcs_endpoint}/v2/{project_id}/instances-logical-nodes?offset={offset}&limit={limit}

Example Responses

Status code: 200

Node information queried successfully.

```
{
  "count" : 1,
  "instances" : [ {
    "instance_id" : "b4468cb1-4f75-4866-a49d-86959acc0c9c",
    "node_count" : 2,
    "nodes" : [ {
      "logical_node_id" : "8f997eb512a92834bf5914be52ca8919",
      "name" : "(replica)192.168.0.178",
      "status" : "Active",
      "az_code" : "xxxxxx",
      "node_role" : "redis-server",
      "node_type" : "slave",
      "node_ip" : "192.168.0.178",
      "node_port" : "6379",
```

```
      "node_id" : "8a2c26c17f4d6516017f4d7b77940030",
      "is_access" : true,
      "group_id" : "ace962d1-7841-4e50-9313-c239fd75dee3",
      "group_name" : "group-0",
      "priority_weight" : 100,
      "is_remove_ip" : false,
      "replication_id" : "e40aa09e-03c2-4319-86eb-5ef4ca637544",
      "dimensions" : [ {
        "name" : "dcs_instance_id",
        "value" : "caf2d19f-7783-44b0-be46-8c9da3ef1e94"
      }, {
        "name" : "dcs_cluster_redis_node",
        "value" : "8263dc69629c5b2d840e9816fa9c6200"
      } ]
    } ]
  } ]
}
```

Status code: 500

Internal service error.

```
{
  "error_code" : "DCS.5000",
  "error_msg" : "Internal service error."
}
```

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.4800",
  "error_msg" : "Invalid offset in the request."
}
```

Status Codes

Status Code	Description
200	Node information queried successfully.
500	Internal service error.
400	Invalid request.

Error Codes

See **Error Codes**.

4.7 Instance Diagnosis

4.7.1 Creating an Instance Diagnosis Task

Function

This API is used to diagnose a specific DCS instance.

URI

POST /v2/{project_id}/instances/{instance_id}/diagnosis

Table 4-309 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
project_id	Yes	String	Project ID.

Request Parameters

Table 4-310 Request body parameters

Parameter	Mandatory	Type	Description
begin_time	Yes	String	Diagnosis start time, The time is a Unix timestamp and the unit is ms.
end_time	Yes	String	Diagnosis end time, The time is a Unix timestamp and the unit is ms.
node_ip_list	No	Array of strings	IP addresses of diagnosed nodes. By default, all nodes are diagnosed. Query methods for an instance: • Method 1: See **Viewing Instance Details**. • Method 2: Call the API for **Querying a DCS instance**.

Response Parameters

Status code: 200

Table 4-311 Response body parameters

Parameter	Type	Description
report_id	String	Report ID.

Status code: 400

Table 4-312 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-313 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
POST https://{dcs_endpoint}/v2/{project_id}/instances/{instance_id}/diagnosis

{
  "begin_time" : 1618466522486,
  "end_time" : 1618467122486,
  "node_ip_list" : [ "192.168.0.111" ]
}
```

Example Responses

Status code: 200

The diagnosis task is successfully delivered.

```
{
  "report_id" : "716c9cca-8ce2-4a89-b3db-7cee209d6379"
}
```

Status Codes

Status Code	Description
200	The diagnosis task is successfully delivered.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.7.2 Listing Instance Diagnosis Tasks

Function

This API is used to query the list of diagnosis tasks of a specific DCS instance.

URI

GET /v2/{project_id}/instances/{instance_id}/diagnosis

Table 4-314 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
project_id	Yes	String	Project ID.

Table 4-315 Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records displayed on each page. The minimum value is **1**. The maximum value is **1000**. If this parameter is not specified, 10 records are displayed on each page by default.
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-316 Response body parameters

Parameter	Type	Description
diagnosis_report_list	Array of **DiagnosisReportInfo** objects	Diagnosis report list.
total_num	Integer	Total number of diagnosis reports.

Table 4-317 DiagnosisReportInfo

Parameter	Type	Description
report_id	String	Diagnosis report ID.
status	String	Diagnosis task status. Enumeration values: ● **diagnosing** ● **finished**
begin_time	String	Start time of a diagnosis period. Format: 2017-03-31T12:24:46.297Z
end_time	String	End time of a diagnosis period. Format: 2017-03-31T12:24:46.297Z
created_at	String	Time when the diagnosis report is created.
node_num	Integer	Number of diagnosed nodes.
abnormal_item_sum	Integer	Total number of abnormal diagnosis items.
failed_item_sum	Integer	Total number of failed diagnosis items.

Status code: 400

Table 4-318 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-319 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

None

Example Responses

Status code: 200

Instance diagnosis reports listed successfully.

```
{
 "diagnosis_report_list" : [ {
   "report_id" : "fb98e37a-3cd9-4c7a-96b1-d878266019e2",
   "status" : "finished",
   "begin_time" : "2021-04-15T06:02:00.000Z",
   "end_time" : "2021-04-15T06:12:00.000Z",
   "created_at" : "2021-04-15T06:12:06.641Z",
   "abnormal_item_sum" : 2,
   "failed_item_sum" : 0,
   "node_num" : 2
 } ],
 "total_num" : 1
}
```

Status Codes

Status Code	Description
200	Instance diagnosis reports listed successfully.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.7.3 Querying a Specified Diagnosis Report

Function

This API is used to query details about a diagnosis report based on the report ID.

URI

GET /v2/{project_id}/diagnosis/{report_id}

Table 4-320 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
report_id	Yes	String	Diagnosis report ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-321 Response body parameters

Parameter	Type	Description
abnormal_item_sum	Integer	Total number of abnormal diagnosis items.
failed_item_sum	Integer	Total number of failed diagnosis items.

Parameter	Type	Description
diagnosis_node_report_list	Array of **DiagnosisNodeReport** objects	Node diagnosis report list.

Table 4-322 DiagnosisNodeReport

Parameter	Type	Description
node_ip	String	IP address of a node. Example: 192.168.0.234:6379
az_code	String	Code of the AZ where the node is.
group_name	String	Name of the shard where the node is.
abnormal_sum	Integer	Total number of abnormal diagnosis items.
failed_sum	Integer	Total number of failed diagnosis items.
role	String	Role of the node. Enumeration values: • **master** • **slave**
diagnosis_dimension_list	Array of **DiagnosisDimension** objects	Diagnosis dimension list.
command_time_taken_list	**CommandTimeTakenList** object	Command execution duration list.

Table 4-323 DiagnosisDimension

Parameter	Type	Description
name	String	Diagnosis dimension name. Enumeration values: • **network** • **storage** • **load**
abnormal_num	Integer	Total number of abnormal diagnosis items.

Parameter	Type	Description
failed_num	Integer	Total number of failed diagnosis items.
diagnosis_item_list	Array of **DiagnosisItem** objects	Diagnosis item list.

Table 4-324 DiagnosisItem

Parameter	Type	Description
name	String	Diagnosis item name. Enumeration values: ● **connection_num** ● **rx_controlled** ● **persistence** ● **centralized_expiration** ● **inner_memory_fragmentation** ● **time_consuming_commands** ● **hit_ratio** ● **memory_usage** ● **cpu_usage**
cause_ids	Array of **ConclusionItem** objects	List of cause IDs. For details about the IDs, see **Instance Diagnosis IDs**.
impact_ids	Array of **ConclusionItem** objects	List of impact IDs. For details about the IDs, see **Instance Diagnosis IDs**.
advice_ids	Array of **ConclusionItem** objects	List of suggestion IDs. For details about the IDs, see **Instance Diagnosis IDs**.
result	String	Diagnosis results. Enumeration values: ● **failed** ● **abnormal** ● **normal**

Table 4-325 ConclusionItem

Parameter	Type	Description
id	Integer	Conclusion ID.
params	Map<String,String>	Conclusion parameters.

Table 4-326 CommandTimeTakenList

Parameter	Type	Description
total_num	Integer	Total number of times that commands are executed.
total_usec_sum	Double	Total duration of command execution.
result	String	Command execution latency result. Enumeration values: • **succeed** • **failed**
command_list	Array of **CommandTimeTaken** objects	Command execution latency statistics.

Table 4-327 CommandTimeTaken

Parameter	Type	Description
calls_sum	Integer	Calls.
usec_sum	Double	Total time consumed.
command_name	String	Command.
per_usec	String	Duration percentage.
average_usec	Double	Average duration of calls.

Status code: 400

Table 4-328 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-329 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

None

Example Responses

Status code: 200

The specified report is queried successfully.

```
{
  "abnormal_item_sum" : 1,
  "failed_item_sum" : 0,
  "diagnosis_node_report_list" : [ {
    "group_name" : "group-0",
    "az_code" : "xxxxxx",
    "node_ip" : "192.168.0.170:6379",
    "abnormal_sum" : 1,
    "failed_sum" : 0,
    "role" : "master",
    "command_time_taken_list" : {
      "command_list" : [ {
        "calls_sum" : 329,
```

```
    "usec_sum" : 20.732,
    "command_name" : "info",
    "per_usec" : "68.61%",
    "average_usec" : 0.063
  }, {
    "calls_sum" : 1788,
    "usec_sum" : 1.787,
    "command_name" : "ping",
    "per_usec" : "5.91%",
    "average_usec" : 0.001
  }, {
    "calls_sum" : 2,
    "usec_sum" : 0.025,
    "command_name" : "config",
    "per_usec" : "0.08%",
    "average_usec" : 0.013
  }, {
    "calls_sum" : 60,
    "usec_sum" : 0.186,
    "command_name" : "slowlog",
    "per_usec" : "0.62%",
    "average_usec" : 0.003
  }, {
    "calls_sum" : 1764,
    "usec_sum" : 7.485,
    "command_name" : "publish",
    "per_usec" : "24.77%",
    "average_usec" : 0.004
  } ],
  "result" : "succeed",
  "error_code" : null,
  "total_num" : 5,
  "total_usec_sum" : 30.215
},
"diagnosis_dimension_list" : [ {
  "name" : "load",
  "abnormal_num" : 0,
  "failed_num" : 0,
  "diagnosis_item_list" : [ {
    "name" : "cpu_usage",
    "result" : "normal",
    "cause_ids" : null,
    "impact_ids" : null,
    "advice_ids" : null,
    "error_code" : null
  }, {
    "name" : "time_consuming_commands",
    "result" : "normal",
    "cause_ids" : null,
    "impact_ids" : null,
    "advice_ids" : null,
    "error_code" : null
  } ]
}, {
  "name" : "storage",
  "abnormal_num" : 1,
  "failed_num" : 0,
  "diagnosis_item_list" : [ {
    "name" : "inner_memory_fragmentation",
    "result" : "normal",
    "cause_ids" : [ {
      "id" : 7,
      "params" : null
    } ],
    "impact_ids" : [ {
      "id" : 3,
      "params" : null
    } ],
    "advice_ids" : [ {
```

```
      "id" : 4,
      "params" : null
    } ],
    "error_code" : null
  }, {
    "name" : "persistence",
    "result" : "normal",
    "cause_ids" : null,
    "impact_ids" : null,
    "advice_ids" : null,
    "error_code" : null
  }, {
    "name" : "centralized_expiration",
    "result" : "normal",
    "cause_ids" : null,
    "impact_ids" : null,
    "advice_ids" : null,
    "error_code" : null
  }, {
    "name" : "memory_usage",
    "result" : "normal",
    "cause_ids" : null,
    "impact_ids" : null,
    "advice_ids" : null,
    "error_code" : null
  }, {
    "name" : "hit_ratio",
    "result" : "normal",
    "cause_ids" : null,
    "impact_ids" : null,
    "advice_ids" : null,
    "error_code" : null
  } ]
  }, {
    "name" : "network",
    "abnormal_num" : 0,
    "failed_num" : 0,
    "diagnosis_item_list" : [ {
      "name" : "connection_num",
      "result" : "normal",
      "cause_ids" : null,
      "impact_ids" : null,
      "advice_ids" : null,
      "error_code" : null
    }, {
      "name" : "rx_controlled",
      "result" : "normal",
      "cause_ids" : null,
      "impact_ids" : null,
      "advice_ids" : null,
      "error_code" : null
    } ]
  } ]
  } ]
}
```

Status Codes

Status Code	Description
200	The specified report is queried successfully.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.8 Log Management

4.8.1 Querying the Slow Log

Function

This API is used to query slow logs.

URI

GET /v2/{project_id}/instances/{instance_id}/slowlog

Table 4-330 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Table 4-331 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.
limit	No	Integer	Number of items displayed on each page.
sort_key	No	String	Keyword based on which the return results are sorted. The value can be **start_time** or **duration**. The default value is **start_time**. Enumeration values: • **start_time** • **duration**

Parameter	Mandatory	Type	Description
sort_dir	No	String	Result sorting order. The value can be **desc** (descending order) or **asc** (ascending order). The default value is **desc**. Enumeration values: • **desc** • **asc**
start_time	Yes	String	Query start time (UTC). Example: **1598803200000**.
end_time	Yes	String	Query end time (UTC). Example: 1599494399000.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-332 Response body parameters

Parameter	Type	Description
count	Integer	Total.
slowlogs	Array of **SlowlogItem** objects	Slow log list.

Table 4-333 SlowlogItem

Parameter	Type	Description
id	Integer	Unique ID of a slow log.
command	String	Slow command.
start_time	String	Execution start time. Example: **2020-06-19T07:06:07Z**.
duration	String	Duration, in milliseconds.

Parameter	Type	Description
shard_name	String	Name of the shard where the slow command is executed. This parameter is supported only when the instance type is cluster.

Status code: 400

Table 4-334 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-335 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-336 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**

Parameter	Type	Description
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-337 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-338 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

GET https://dcs.cn-south-1.myhuaweicloud.com/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/
5560df16-cebf-4473-95c4-d1b573c16e79/slowlog?start_time=1598803200000&end_time=1599494399000

Example Responses

Status code: 200

Slow logs queried successfully.

```
{
  "count" : 1,
  "slowlogs" : [ {
    "id" : 1,
    "start_time" : "2020-06-19T07:06:07Z",
    "command" : "SLOWLOG GET 128",
    "duration" : "17",
    "shard_name" : "group-0"
  } ]
}
```

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.4800",
  "error_msg" : "Invalid start_time in the request."
}
```

Status Codes

Status Code	Description
200	Slow logs queried successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.8.2 Listing Redis Run Logs

Function

This API is used to query the Redis run logs.

URI

GET /v2/{project_id}/instances/{instance_id}/redislog

Table 4-339 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Table 4-340 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.
limit	No	Integer	Number of items displayed on each page.
log_type	Yes	String	Log type. Currently, only Redis run logs are supported. The value is **run**.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-341 Response body parameters

Parameter	Type	Description
total_num	Integer	Total.
file_list	Array of **RunlogItem** objects	Run log list.

Table 4-342 RunlogItem

Parameter	Type	Description
id	String	Unique ID of a run log.
file_name	String	Run log file name.

Parameter	Type	Description
group_name	String	Shard name.
replication_ip	String	IP address of the replica where the run logs are collected.
status	String	Run log status.
time	String	Date when run logs are collected. The format is yyyy-MM-dd.

Status code: 400

Table 4-343 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-344 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-345 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-346 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-347 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

GET https://*{dcs_endpoint}*/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/5560df16-cebf-4473-95c4-d1b573c16e79/redislog?log_type=run&offset=1&limit=10

Example Responses

Status code: 200

Run logs queried successfully.

```
{
  "total_num" : 1,
  "file_list" : [ {
    "id" : "e79f2d97-e972-41f2-b51c-d18f65f39a45",
    "file_name" : "redis_192.168.0.142_2021-04-16.log",
    "status" : "succeed",
    "time" : "2021-04-16",
    "replication_ip" : "192.168.0.142",
    "group_name" : "group-0",
    "backupId" : "e79f2d97-e972-41f2-b51c-d18f65f39a45"
  } ]
}
```

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.4800",
  "error_msg" : "Invalid logType."
}
```

Status Codes

Status Code	Description
200	Run logs queried successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.8.3 Collecting Redis Run Logs

Function

This API is used to collect Redis run logs.

URI

POST /v2/{project_id}/instances/{instance_id}/redislog

Table 4-348 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Table 4-349 Query Parameters

Parameter	Mandatory	Type	Description
query_time	No	Integer	Date offset, indicating that the query starts from the last n days. For example, the value **0** indicates that the logs of the current day are queried, and the value **7** indicates that the logs of the last seven days are queried. The value ranges from 0 to 7.
log_type	Yes	String	Log type. Currently, only Redis run logs are supported. The value is **run**.
replication_id	No	String	Replica ID. You can query the replica ID from **Shards and Replicas**. This parameter is mandatory when the instance is not single-node.

Request Parameters

None

Response Parameters

Status code: 400

Table 4-350 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**

Parameter	Type	Description
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-351 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-352 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-353 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-354 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

POST https://*{dcs_endpoint}*/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/5560df16-cebf-4473-95c4-d1b573c16e79/redislog?log_type=run&query_time=7

Example Responses

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.4800",
  "error_msg" : "Invalid logType."
}
```

Status Codes

Status Code	Description
204	Run logs collected successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.8.4 Obtaining the Log Download Link

Function

This API is used to obtain the link for downloading logs.

URI

POST /v2/{project_id}/instances/{instance_id}/redislog/{id}/links

Table 4-355 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.
id	Yes	String	Unique ID of a log, which is obtained from the API used to query run logs.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-356 Response body parameters

Parameter	Type	Description
id	String	Log ID.
link	String	Log download link. The default validity period is 24 hours.

Status code: 400

Table 4-357 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-358 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-359 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-360 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-361 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

POST https://*{dcs_endpoint}*/v2/0524e839a54847039e9b2b46e8aa788a/instances/5c597ce5-9823-48aa-bf4d-2defb9385b4a/redislog/3ea6ce21-048e-447a-83c3-3fb004b88439/links

Example Responses

Status code: 200

Log download link obtained successfully.

```
{
  "backup_id" : "3ea6ce21-048e-447a-83c3-3fb004b88439",
  "link" : "https://bucketxxxxx.obs.cn-north-4.myhuaweicloud.com:443/xxxxx/
redis_192.168.x.x_2021-04-16.log?AWSAccessKeyId=xxxxx"
}
```

Status Codes

Status Code	Description
200	Log download link obtained successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.9 Tag Management

4.9.1 Listing All Tags of a Tenant

Function

This API is used to query the tags of all resources owned by a tenant in a specific project.

URI

GET /v2/{project_id}/dcs/tags

Table 4-362 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-363 Response body parameters

Parameter	Type	Description
tags	Array of **Tag** objects	Tag list.

Table 4-364 Tag

Parameter	Type	Description
key	String	Tag key, which can contain a maximum of 36 Unicode characters.
values	Array of strings	Tag value.

Status code: 400

Table 4-365 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-366 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
POST https://{dcs_endpoint}/v2/{project_id}/dcs/tags
```

Example Responses

Status code: 200

Successfully queried all tags of the tenant.

```
{
  "tags" : [ {
    "values" : [ "value1", "value2" ],
    "key" : 1
  }, {
    "values" : [ "value1", "value2" ],
    "key" : 2
  } ]
}
```

Status Codes

Status Code	Description
200	Successfully queried all tags of the tenant.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.9.2 Batch Adding or Deleting Tags

Function

This API is used to add or delete tags in batches for a DCS instance.

URI

POST /v2/{project_id}/dcs/{instance_id}/tags/action

Table 4-367 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Request Parameters

Table 4-368 Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Operation to be performed. The value can be **create** or **delete**.
tags	No	Array of **ResourceTag** objects	Tag list.

Table 4-369 ResourceTag

Parameter	Mandatory	Type	Description
key	Yes	String	Tag key. • This field cannot be left blank. • The key value of a resource must be unique. • The tag key can contain a maximum of 36 characters. • The tag key must be unique and cannot be empty.

Parameter	Mandatory	Type	Description
value	No	String	Tag value. • This parameter is mandatory when **action** is set to **create** and is optional when **action** is set to **delete**. • The tag value can contain a maximum of 43 characters.

Response Parameters

None

Example Requests

POST https://{dcs_endpoint}/v2/7dddae81f0e34f62adb9618bc8c8b1fe/dcs/
01928d55-7020-4500-9c29-774caabe4bc4/tags/action

Example Responses

None

Status Codes

Status Code	Description
204	Tags added or deleted successfully.

Error Codes

See **Error Codes**.

4.9.3 Querying Tags of a DCS Instance

Function

This API is used to query the tags of an instance by its instance ID.

URI

GET /v2/{project_id}/instances/{instance_id}/tags

Table 4-370 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-371 Response body parameters

Parameter	Type	Description
tags	Array of **ResourceTag** objects	Tag list.

Table 4-372 ResourceTag

Parameter	Type	Description
key	String	Tag key. ● This field cannot be left blank. ● The key value of a resource must be unique. ● The tag key can contain a maximum of 36 characters. ● The tag key must be unique and cannot be empty.
value	String	Tag value. ● This parameter is mandatory when **action** is set to **create** and is optional when **action** is set to **delete**. ● The tag value can contain a maximum of 43 characters.

Example Requests

GET https://{dcs_endpoint}/v2/{project_id}/instances/{instance_id}/tags

Example Responses

Status code: 200

Instance tags queried successfully.

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

Status Codes

Status Code	Description
200	Instance tags queried successfully.

Error Codes

See **Error Codes**.

4.10 Network Security

4.10.1 Configuring IP Whitelist Groups

Function

This API is used to configure IP address whitelist groups for a specific instance, including creating, disabling, editing, and deleting a whitelist. New whitelist settings will overwrite the existing setting. Therefore, save the existing whitelist before you add a new one.

URI

PUT /v2/{project_id}/instance/{instance_id}/whitelist

Table 4-373 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Request Parameters

Table 4-374 Request body parameters

Parameter	Mandatory	Type	Description
instance_id	No	String	Instance ID.
enable_whitelist	Yes	Boolean	Whether to enable the whitelist. The options are **true** and **false**. Enumeration values: ● **true** ● **false**
whitelist	Yes	Array of **Whitelist** objects	IP whitelist group.

Table 4-375 Whitelist

Parameter	Mandatory	Type	Description
group_name	Yes	String	Whitelist group name. A maximum of four groups can be created for each instance.
ip_list	Yes	Array of strings	List of IP addresses in the whitelist group. A maximum of 20 IP addresses or IP address ranges can be added to an instance. Separate multiple IP addresses or IP address ranges with commas (,). IP address 0.0.0.0 and IP address range 0.0.0/0 are not supported.

Response Parameters

Status code: 400

Table 4-376 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**

Parameter	Type	Description
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-377 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-378 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-379 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-380 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
PUT https://{dcs_endpoint}/v2/{project_id}/instance/{instance_id}/whitelist

{
 "enable_whitelist" : true,
 "whitelist" : [ {
   "group_name" : "test001",
   "ip_list" : [ "10.10.10.1", "10.10.10.2" ]
 } ]
}
```

Example Responses

None

Table 4-382 Response body parameters

Parameter	Type	Description
instance_id	String	Instance ID.
enable_whitelist	Boolean	Whether to enable the whitelist. The options are **true** and **false**. Enumeration values: ● **true** ● **false**
whitelist	Array of **Whitelist** objects	IP whitelist group.

Table 4-383 Whitelist

Parameter	Type	Description
group_name	String	Whitelist group name. A maximum of four groups can be created for each instance.
ip_list	Array of strings	List of IP addresses in the whitelist group. A maximum of 20 IP addresses or IP address ranges can be added to an instance. Separate multiple IP addresses or IP address ranges with commas (,). IP address 0.0.0.0 and IP address range 0.0.0/0 are not supported.

Example Requests

GET https://{dcs_endpoint}/v2/{project_id}/instance/{instance_id}/whitelist

Example Responses

Status code: 200

Instance whitelist queried successfully.

```
{
  "instance_id" : "5560df16-cebf-4473-95c4-d1b573c16e79",
  "enable_whitelist" : true,
  "whitelist" : {
    "group_name" : "test001",
    "ip_list" : [ "10.10.10.1", "10.10.10.2" ]
  }
}
```

Status Codes

Status Code	Description
200	Instance whitelist queried successfully.

Error Codes

See **Error Codes**.

4.11 Background Task Management

4.11.1 Listing Background Tasks

Function

This API is used to list background tasks.

URI

GET /v2/{project_id}/instances/{instance_id}/tasks

Table 4-384 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.

Table 4-385 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.
limit	No	Integer	Number of items displayed on each page.
start_time	No	String	Query start time (UTC). Format: yyyyMMddHHmmss, for example, **20200609160000**.

Parameter	Mandatory	Type	Description
end_time	No	String	Query end time (UTC). Format: yyyyMMddHHmmss, for example, **20200617155959**.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-386 Response body parameters

Parameter	Type	Description
task_count	String	Number of tasks.
tasks	Array of **SingleBackgroundTask** objects	Task details array.
updated_at	String	Task end time, in the format 2020-06-17T07:38:42.503Z.
created_at	String	Task start time, in the format 2020-06-17T07:38:42.503Z.
status	String	Task status. Enumeration values: ● **SUCCESS** ● **FAILED** ● **EXECUTING** ● **CREATED** ● **WAITING**

Table 4-387 SingleBackgroundTask

Parameter	Type	Description
id	String	Background task ID.

Parameter	Type	Description
name	String	Background task name. The options are as follows: **ChangeInstanceSpec**: modifying specifications **BindEip**: enabling public access **UnBindEip**: disabling public access **AddReplica**: adding replicas **DelReplica**: deleting replicas **AddWhitelist**: configuring an IP whitelist **UpdatePort**: changing the port **RemoveIpFromDns**: removing IP addresses
details	**DetailsBody** object	Details.
user_name	String	Username.
user_id	String	User ID.
params	String	Task parameters.
status	String	Task status.
created_at	String	Task start time, in the format 2020-06-17T07:38:42.503Z.
updated_at	String	Task end time, in the format 2020-06-17T07:38:42.503Z.

Table 4-388 DetailsBody

Parameter	Type	Description
old_capacity	String	Capacity before the modification. This parameter has a value only when the specifications are modified.
new_capacity	String	Capacity after the modification. This parameter has a value only when the specifications are modified.
enable_public _ip	Boolean	Whether public access is enabled. This parameter has a value only when public access is enabled.
public_ip_id	String	ID of the IP address used for public access. This parameter has a value only when public access is enabled.

Parameter	Type	Description
public_ip_add ress	String	IP address used for public access. This parameter has a value only when public access is enabled.
enable_ssl	Boolean	Whether SSL is enabled. This parameter has a value only when SSL is enabled.
old_cache_mo de	String	Cache type before the modification. This parameter has a value only when the specifications are modified.
new_cache_m ode	String	Cache type after the modification. This parameter has a value only when the specifications are modified.

Status code: 400

Table 4-389 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-390 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-391 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-392 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-393 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
GET https://{dcs_endpoint}/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/5560df16-
cebf-4473-95c4-d1b573c16e79/tasks?
offset=0&limit=10&begin_time=20200609160000&end_time=20200617155959
```

Example Responses

Status code: 200

Background tasks listed successfully.

```
{
  "task_count" : 1,
  "tasks" : [ {
    "id" : "8abf6e1e72c12e7c0172c15b508500aa",
    "name" : "ChangeInstanceSpec",
    "user_name" : "paas_dcs_a00421997_02",
    "user_id" : "d53977d1adfb49c5b025ba7d33a13fd7",
    "details" : {
      "old_cache_mode" : "single",
      "new_cache_mode" : "single",
      "old_capacity" : 0.125,
      "new_capacity" : 0.25
    }
  } ],
  "status" : "SUCCESS",
  "created_at" : "2020-06-17T08:18:06.597Z",
  "updated_at" : "2020-06-17T08:18:10.106Z"
}
```

Status Codes

Status Code	Description
200	Background tasks listed successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.11.2 Deleting a Background Task

Function

This API is used to delete a background task.

URI

DELETE /v2/{project_id}/instances/{instance_id}/tasks/{task_id}

Table 4-394 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
instance_id	Yes	String	Instance ID.
task_id	Yes	String	Background task ID.

Request Parameters

None

Response Parameters

Status code: 400

Table 4-395 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-396 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**

Parameter	Type	Description
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-397 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-398 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-399 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
DELETE https://{dcs_endpoint}/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/5560df16-cebf-4473-95c4-d1b573c16e79/tasks/8abf6e1e72c12e7c0172c15b508500aa
```

Example Responses

None

Status Codes

Status Code	Description
204	Background task deleted successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.12 Other APIs

4.12.1 Querying Product Flavors

Function

This API is used to query the product flavor (parameter **spec_code**) required for configuring a new DCS instance. If no search criterion is specified, all product specifications will be queried by default.

URI

GET /v2/{project_id}/flavors

Table 4-400 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Table 4-401 Query Parameters

Parameter	Mandatory	Type	Description
spec_code	No	String	Product flavor.
cache_mode	No	String	DCS instance type. The options are as follows: ● **single**: single-node ● **ha**: master/standby ● **cluster**: Redis Cluster ● **proxy**: Proxy Cluster - **ha_rw_split**: read/write splitting
engine	No	String	Cache engine. The options are as follows: ● **Redis** ● **Memcached**
engine_version	No	String	Cache engine version. If the cache engine is Redis, the options are as follows: ● **3.0** ● **4.0** ● **5.0**

Parameter	Mandatory	Type	Description
cpu_type	No	String	CPU architecture. The options are as follows: • **x86_64**: x86 architecture • **aarch64**: Arm architecture Enumeration values: • **x86_64** • **aarch64**
capacity	No	String	Cache capacity (GB). • For a single-node or master/standby DCS Redis 3.0 instance, the value can be **2**, **4**, **8**, **16**, **32**, or **64**. For a Proxy Cluster DCS Redis 3.0 instance, the value can be **64**, **128**, **256**, **512**, or **1024**. • For a single-node or master/standby DCS Redis 4.0 or 5.0 instance, the value can be **0.125**, **0.25**, **0.5**, **1**, **2**, **4**, **8**, **16**, **32**, or **64**. For a Redis Cluster DCS Redis 4.0 or 5.0 instance, the value can be **24**, **32**, **48**, **64**, **96**, **128**, **192**, **256**, **384**, **512**, **768**, or ****1024**. • For a single-node or master/standby DCS Memcached instance, the value can be **2**, **4**, **8**, **16**, **32**, or **64**.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-402 Response body parameters

Parameter	Type	Description
flavors	Array of **FlavorsItems** objects	Product flavor details.

Table 4-403 FlavorsItems

Parameter	Type	Description
spec_code	String	Product flavor.
cloud_service_type_code	String	Code of the cloud service type.
cloud_resource_type_code	String	Code of the cloud resource type.
cache_mode	String	DCS instance type. The options are as follows: • **single**: single-node • **ha**: master/standby • **cluster**: Redis Cluster • **proxy**: Proxy Cluster
engine	String	Cache engine.
engine_version	String	Cache engine version. If the cache engine is Redis, the value can be **4.0**, or **5.0**.
product_type	String	Edition of DCS for Redis. Currently, only the following value is supported: **generic**: standard
cpu_type	String	CPU architecture. The options are as follows: • **x86_64**: x86 architecture • **aarch64**: Arm architecture
storage_type	String	Storage type. Currently, only the following value is supported: **DRAM**: in-memory storage
capacity	Array of strings	Cache capacity (GB).
billing_mode	Array of strings	Billing mode. The value can be: • **Hourly**: pay-per-use
tenant_ip_count	Integer	Number of tenant IP addresses.

Parameter	Type	Description
pricing_type	String	Pricing type. The options are as follows: • **tier**: Tiered pricing. One flavor corresponds to multiple capacity options. • **normal**: One flavor corresponds to one capacity option.
is_dec	Boolean	Whether Dedicated Cloud (DeC) is supported.
attrs	Array of **AttrsObject** objects	Other information about the flavor.
flavors_available_zones	Array of **FlavorAzObject** objects	AZs where there are available resources.

Table 4-404 AttrsObject

Parameter	Type	Description
capacity	String	Cache capacity (GB).
name	String	Additional information items. The options are as follows: • **sharding_num**: Number of shards supported by the flavor. • **proxy_num**: Number of proxies supported by Proxy Cluster instances of the specified flavor. If the instance is not a Proxy Cluster instance, the value of this parameter is **0**. • **db_number**: Number of DBs of the flavor. • **max_memory**: Maximum available memory. • **max_connections**: Maximum number of connections supported by the flavor. • **max_clients**: Maximum number of clients supported by the flavor, which is usually equal to the maximum number of connections. • **max_bandwidth**: Maximum bandwidth supported by the flavor. • **max_in_bandwidth**: Maximum inbound bandwidth supported by the flavor, which is usually equal to the maximum bandwidth.
value	String	Additional information value.

Table 4-405 FlavorAzObject

Parameter	Type	Description
capacity	String	Cache capacity (GB).
az_codes	Array of strings	AZs where there are available resources.

Status code: 400

Table 4-406 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-407 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-408 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-409 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-410 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
GET https://{dcs_endpoint}/v2/flavors?
cache_mode={cache_mode}&engine={engine}&engine_version={engine_version}&cpu_type={cpu_type}&capa
city={capacity}
```

Example Responses

Status code: 200

Product flavors queried successfully.

```
{
  "flavors" : [ {
    "spec_code" : "redis.single.au1.large.1",
    "cloud_service_type_code" : "hws.resource.type.dcs3",
    "cloud_resource_type_code" : "hws.resource.type.dcs3",
    "cache_mode" : "single",
    "engine" : "redis",
    "engine_version" : "4.0;5.0",
    "product_type" : "generic",
    "cpu_type" : "aarch64",
    "storage_type" : "DRAM",
    "capacity" : [ 1 ],
    "billing_mode" : [ "Hourly" ],
    "tenant_ip_count" : 1,
    "pricing_type" : "normal",
    "is_dec" : false,
    "attrs" : [ {
      "capacity" : 1,
      "name" : "max_memory",
      "value" : 1
    }, {
      "capacity" : 1,
      "name" : "max_connections",
      "value" : 10000
    }, {
      "capacity" : 1,
      "name" : "sharding_num",
      "value" : 1
    }, {
      "capacity" : 1,
      "name" : "proxy_num",
      "value" : 0
    }, {
      "capacity" : 1,
      "name" : "db_number",
      "value" : 256
    }, {
      "capacity" : 1,
      "name" : "max_clients",
      "value" : 10000
    }, {
      "capacity" : 1,
      "name" : "max_bandwidth",
      "value" : 80
    } ],
    "flavors_available_zones" : [ {
      "capacity" : 1,
      "az_code" : [ "cn-north-7c" ]
    } ]
  } ]
}
```

Status code: 400

Invalid request.

```
{
  "error_code" : "DCS.1004",
```

```
"error_msg" : "Project ID does not match the token."
}
```

Status code: 401

Invalid authentication information.

```
{
  "error_code" : "DCS.1001",
  "error_msg" : "Invalid token."
}
```

Status code: 403

The request is rejected.

```
{
  "error_code" : "DCS.2003",
  "error_msg" : "This role does not have the permission to perform this operation."
}
```

Status code: 404

The requested resource is not found.

```
{
  "error_code" : "DCS.4001",
  "error_msg" : "The requested URL does not exist."
}
```

Status code: 500

Internal service error.

```
{
  "error_code" : "DCS.5000",
  "error_msg" : "Internal service error."
}
```

Status Codes

Status Code	Description
200	Product flavors queried successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.12.2 Listing Maintenance Time Windows

Function

This API is used to query the start time and end time of maintenance windows.

URI

GET /v2/instances/maintain-windows

Request Parameters

None

Response Parameters

Status code: 200

Table 4-411 Response body parameters

Parameter	Type	Description
maintain_win dows	Array of **MaintainWin dowsEntity** objects	List of supported maintenance time windows.

Table 4-412 MaintainWindowsEntity

Parameter	Type	Description
seq	Integer	Sequence number of the maintenance time window.
default	Boolean	Whether a maintenance time window is set to the default time segment.
begin	String	UTC time when the maintenance time window starts. The format is HH:mm:ss.
end	String	UTC time when the maintenance time window ends. The format is HH:mm:ss.

Status code: 500

Table 4-413 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

GET https://{dcs_endpoint}/v2/instances/maintain-windows

Example Responses

Status code: 200

Maintenance time windows queried successfully.

```
{
 "maintain_windows" : [ {
   "default" : true,
   "end" : "19",
   "begin" : "18",
   "seq" : 1
 }, {
   "default" : false,
   "end" : "20",
   "begin" : "19",
   "seq" : 2
 }, {
   "default" : false,
   "end" : "21",
   "begin" : "20",
   "seq" : 3
 }, {
   "default" : false,
   "end" : "22",
   "begin" : "21",
   "seq" : 4
 }, {
   "default" : false,
   "end" : "23",
   "begin" : "22",
   "seq" : 5
 }, {
   "default" : false,
   "end" : "00",
   "begin" : "23",
   "seq" : 6
 }, {
   "default" : false,
   "end" : "01",
   "begin" : "00",
   "seq" : 1
 }, {
   "default" : false,
```

      "end" : "02",
      "begin" : "01",
      "seq" : 2
    }, {
      "default" : false,
      "end" : "03",
      "begin" : "02",
      "seq" : 3
    }, {
      "default" : false,
      "end" : "04",
      "begin" : "03",
      "seq" : 3
    }, {
      "default" : false,
      "end" : "05",
      "begin" : "04",
      "seq" : 4
    }, {
      "default" : false,
      "end" : "06",
      "begin" : "05",
      "seq" : 5
    }, {
      "default" : false,
      "end" : "07",
      "begin" : "06",
      "seq" : 6
    }, {
      "default" : false,
      "end" : "08",
      "begin" : "07",
      "seq" : 1
    }, {
      "default" : true,
      "end" : "09",
      "begin" : "08",
      "seq" : 2
    }, {
      "default" : false,
      "end" : "10",
      "begin" : "09",
      "seq" : 3
    }, {
      "default" : false,
      "end" : "11",
      "begin" : "10",
      "seq" : 4
    }, {
      "default" : false,
      "end" : "12",
      "begin" : "11",
      "seq" : 5
    }, {
      "default" : false,
      "end" : "13",
      "begin" : "12",
      "seq" : 6
    }, {
      "default" : false,
      "end" : "14",
      "begin" : "13",
      "seq" : 1
    }, {
      "default" : true,
      "end" : "15",
      "begin" : "14",
      "seq" : 2
    }, {

```
  "default" : false,
  "end" : "16",
  "begin" : "15",
  "seq" : 3
}, {
  "default" : false,
  "end" : "17",
  "begin" : "16",
  "seq" : 4
}, {
  "default" : false,
  "end" : "18",
  "begin" : "17",
  "seq" : 5
} ]
}
```

Status Codes

Status Code	Description
200	Maintenance time windows queried successfully.
500	Internal service error.

Error Codes

See **Error Codes**.

4.12.3 Querying the Tenant Quotas

Function

This API is used to query the default instance quota and total memory quota of a tenant and the maximum and minimum quotas a tenant can apply for. Different tenants have different quotas in different regions.

URI

GET /v2/{project_id}/quota

Table 4-414 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-415 Response body parameters

Parameter	Type	Description
quotas	**quotas** object	Quota information.

Table 4-416 quotas

Parameter	Type	Description
resources	Array of **Resources** objects	List of quotas

Table 4-417 Resources

Parameter	Type	Description
unit	String	Resource unit. ● When **type** is set to **instance**, no value is returned. ● When **type** is set to **ram**, **GB** is returned.
min	Integer	Minimum limit of instance quota when **type** is set to **instance**. ● Minimum limit of memory quota when **type** is set to **ram**.
max	Integer	Maximum limit of instance quota when **type** is set to **instance**. ● Maximum limit of memory quota when **type** is set to **ram**.
quota	Integer	Maximum number of instances that can be created and maximum allowed total memory.
used	Integer	Number of created instances and used memory.
type	String	The value can be **instance** or **ram**. ● **instances**: instance quota ● **ram**: memory quota

Status code: 400

Table 4-418 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-419 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

GET https://{dcs_endpoint}/v2/{project_id}/quota

Example Responses

Status code: 200

Tenant quota queried successfully.

```
{
  "quotas" : {
    "resources" : [ {
      "unit" : { },
      "min" : 1,
      "max" : 10,
      "quota" : 10,
      "used" : 3,
      "type" : "instance"
    }, {
      "unit" : "GB",
      "min" : 1,
      "max" : 800,
      "quota" : 800,
```

```
      "used" : 22,
      "type" : "ram"
    } ]
  }
}
```

Status Codes

Status Code	Description
200	Tenant quota queried successfully.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.12.4 Listing Monitored Objects on Secondary Dimensions Under a Primary Dimension

Function

This API is used to query the monitored objects on secondary dimensions under primary dimension **dcs_instance_id**.

URI

GET /v2/{project_id}/dims/monitored-objects/{instance_id}

Table 4-420 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Tenant ID.
instance_id	Yes	String	ID of the monitored object on the primary dimension, which is the instance ID.

Table 4-421 Query Parameters

Parameter	Mandatory	Type	Description
dim_name	Yes	String	ID of the primary dimension, which can be **dcs_instance_id**.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-422 Response body parameters

Parameter	Type	Description
router	Array of strings	Route of the specified dimension. If the dimension is the primary dimension, the array contains the ID of the primary dimension.
children	Array of **DimChild** objects	Secondary dimensions under the specified dimension. This parameter is valid only when the dimension is **dcs_instance_id**. • The secondary dimension of a Proxy Cluster instance can be **dcs_cluster_redis_node** or **dcs_cluster_proxy_node**. • The secondary dimension of a Redis Cluster instance can be **dcs_cluster_proxy_node**.
instances	Array of **InstancesMonitoredObject** objects	Monitored objects of the specified dimension.
dcs_cluster_redis_node	Array of **ClusterRedisNodeMonitoredObject** objects	Monitored objects of the Redis Server. This parameter is valid for Proxy Cluster and Redis Cluster instances. The field name is the same as the secondary dimension object name under **children**.
dcs_cluster_proxy_node	Array of **ProxyNodeMonitoredObject** objects	Monitored objects of the Proxy. This parameter is valid only for Redis 3.0 Proxy Cluster instances. The field name is the same as the secondary dimension object name under **children**.
dcs_cluster_proxy2_node	Array of **Proxy2NodeMonitoredObject** objects	Monitored objects of the Proxy. This parameter is valid only for Redis 4.0 and 5.0 Proxy Cluster instances. The field name is the same as the secondary dimension object name under **children**.
total	Integer	Total number of monitored objects on the primary dimension.

Table 4-423 DimChild

Parameter	Type	Description
dim_name	String	Dimension name. Currently, the following dimensions are supported: **dcs_instance_id**, **dcs_cluster_redis_node**, **dcs_cluster_proxy_node**, **dcs_memcached_instance_id**.
dim_route	String	Dimension route. Format: *Dimension name,Sub-dimension name*. For example, if **dim_name** is **dcs_cluster_redis_node**, the value of **dim_route** is **dcs_instance_id,dcs_cluster_redis_node**.

Table 4-424 InstancesMonitoredObject

Parameter	Type	Description
dcs_instance_id	String	ID of the monitored object, which is the instance ID.
name	String	Name of the monitored object, which is the instance name.
status	String	Status of the monitored object, which is the instance status.

Table 4-425 ClusterRedisNodeMonitoredObject

Parameter	Type	Description
dcs_instance_id	String	ID of the monitored object, which is the node ID.
name	String	Name of the monitored object, which is the node IP address.
dcs_cluster_redis_node	String	ID of the monitored object on the **dcs_cluster_redis_node** dimension.
status	String	Status of the monitored object, which is the node status.

Table 4-426 ProxyNodeMonitoredObject

Parameter	Type	Description
dcs_instance_id	String	ID of the monitored object, which is the node ID.
name	String	Name of the monitored object, which is the node IP address.
dcs_cluster_proxy_node	String	ID of the monitored object on the **dcs_cluster_proxy_node** dimension.
status	String	Status of the monitored object, which is the node status.

Table 4-427 Proxy2NodeMonitoredObject

Parameter	Type	Description
dcs_instance_id	String	ID of the monitored object, which is the node ID.
name	String	Name of the monitored object, which is the node IP address.
dcs_cluster_proxy2_node	String	ID of the monitored object on the **dcs_cluster_proxy2_node** dimension.
status	String	Status of the monitored object, which is the node status.

Status code: 500

Table 4-428 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

GET https://{dcs_endpoint}/v2/{project_id}/dims/monitored-objects/{instance_id}?dim_name={dim_name}

Example Responses

Status code: 200

Successfully queried the monitored objects on the primary dimension.

```
{
  "router" : [ "dcs_instance_id" ],
  "total" : 1,
  "children" : [ {
    "dim_name" : "dcs_cluster_redis_node",
    "dim_route" : "dcs_instance_id,dcs_cluster_redis_node"
  } ],
  "instances" : [ {
    "name" : "dcs-test001",
    "status" : "RUNNING",
    "dcs_instance_id" : "03ca9da0-1104-40a5-b49d-5ef8e41bfd19"
  } ],
  "dcs_cluster_redis_node" : [ {
    "name" : "(master)192.168.2.145",
    "status" : "RUNNING",
    "dcs_instance_id" : "03ca9da0-1104-40a5-b49d-5ef8e41bfd19",
    "dcs_cluster_redis_node" : "b1f4aa9e4dae50888e58c9caecdfc108"
  }, {
    "name" : "(replica)192.168.2.199",
    "status" : "RUNNING",
    "dcs_instance_id" : "03ca9da0-1104-40a5-b49d-5ef8e41bfd19",
    "dcs_cluster_redis_node" : "e0e10e489a73487147928167396474bc"
  }, {
    "name" : "(master)192.168.2.243",
    "status" : "RUNNING",
    "dcs_instance_id" : "03ca9da0-1104-40a5-b49d-5ef8e41bfd19",
    "dcs_cluster_redis_node" : "e797c3ba8bee782e25cdd4a90eb00517"
  }, {
    "name" : "(replica)192.168.2.164",
    "status" : "RUNNING",
    "dcs_instance_id" : "03ca9da0-1104-40a5-b49d-5ef8e41bfd19",
    "dcs_cluster_redis_node" : "d810fb44f9f7a359e000cf277a824c43"
  }, {
    "name" : "(master)192.168.2.95",
    "status" : "RUNNING",
    "dcs_instance_id" : "03ca9da0-1104-40a5-b49d-5ef8e41bfd19",
    "dcs_cluster_redis_node" : "f25c37a4654d50b07e629fc2adfba60f"
  }, {
    "name" : "(replica)192.168.2.51",
    "status" : "RUNNING",
    "dcs_instance_id" : "03ca9da0-1104-40a5-b49d-5ef8e41bfd19",
    "dcs_cluster_redis_node" : "da5149a20dc7caf35587e4d2433fe452"
  } ]
}
```

Status Codes

Status Code	Description
200	Successfully queried the monitored objects on the primary dimension.
500	Internal service error.

Error Codes

See **Error Codes**.

4.12.5 Listing Monitored Objects on Primary Dimensions

Function

This API is used to query the monitored objects on primary dimensions **dcs_instance_id** and **dcs_memcached_instance_id**.

URI

GET /v2/{project_id}/dims/monitored-objects

Table 4-429 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Tenant ID.

Table 4-430 Query Parameters

Parameter	Mandatory	Type	Description
dim_name	Yes	String	Primary dimension ID, which can be **dcs_instance_id** or **dcs_memcached_instance_id**.
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0. Default: **0**
limit	No	Integer	Number of items displayed on each page. Default: **10**

Request Parameters

None

Response Parameters

Status code: 200

Table 4-431 Response body parameters

Parameter	Type	Description
router	Array of strings	Route of the specified dimension. If the dimension is the primary dimension, the array contains the ID of the primary dimension.
children	Array of **DimChild** objects	Secondary dimensions under the specified dimension. This parameter is valid only when the dimension is **dcs_instance_id**. ● The secondary dimension of a Proxy Cluster instance can be **dcs_cluster_redis_node** or **dcs_cluster_proxy_node**. ● The secondary dimension of a Redis Cluster instance can be **dcs_cluster_proxy_node**.
instances	Array of **InstancesMonitoredObject** objects	Monitored objects of the specified dimension.
total	Integer - key	Total number of monitored objects on the primary dimension.

Table 4-432 DimChild

Parameter	Type	Description
dim_name	String	Dimension name. Currently, the following dimensions are supported: **dcs_instance_id**, **dcs_cluster_redis_node**, **dcs_cluster_proxy_node**, **dcs_memcached_instance_id**.
dim_route	String	Dimension route. Format: *Dimension name,Sub-dimension name*. For example, if **dim_name** is **dcs_cluster_redis_node**, the value of **dim_route** is **dcs_instance_id,dcs_cluster_redis_node**.

Table 4-433 InstancesMonitoredObject

Parameter	Type	Description
dcs_instance_id	String	ID of the monitored object, which is the instance ID.
name	String	Name of the monitored object, which is the instance name.

Parameter	Type	Description
status	String	Status of the monitored object, which is the instance status.

Status code: 500

Table 4-434 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
GET https://{dcs_endpoint}}/v2/{project_id}}/dims/monitored-objects?dim_name={dim_name}
```

Example Responses

Status code: 200

Successfully listed the monitored objects on the primary dimension.

```
{
  "router" : [ "dcs_instance_id" ],
  "total" : 3,
  "children" : [ {
    "dim_name" : "dcs_cluster_redis_node",
    "dim_route" : "dcs_instance_id,dcs_cluster_redis_node"
  }, {
    "dim_name" : "dcs_cluster_proxy_node",
    "dim_route" : "dcs_instance_id,dcs_cluster_proxy_node"
  } ],
  "instances" : [ {
    "name" : "dcs-redis-single-node",
    "status" : "RUNNING",
    "dcs_instance_id" : "fe909c47-8990-44a0-9154-d0a1e95e78fe"
  }, {
    "name" : "dcs-redis-master-standby",
    "status" : "RUNNING",
    "dcs_instance_id" : "877e5ae3-482e-4c38-88a0-030a0fa6f399"
  }, {
    "name" : "dcs-proxy-cluster",
    "status" : "RUNNING",
    "dcs_instance_id" : "448ee851-1366-47f2-913a-e21032e690c4"
  } ]
}
```

Status Codes

Status Code	Description
200	Successfully listed the monitored objects on the primary dimension.
500	Internal service error.

Error Codes

See **Error Codes**.

4.12.6 Querying AZs

Function

This API is used to query the AZ information of the current region.

URI

GET /v2/available-zones

Request Parameters

None

Response Parameters

Status code: 200

Table 4-435 Response body parameters

Parameter	Type	Description
region_id	String	Region ID.
available_zones	Array of **AvailableZones** objects	Array of AZs.

Table 4-436 AvailableZones

Parameter	Type	Description
code	String	AZ code.
port	String	AZ port.
name	String	AZ name.

Parameter	Type	Description
id	String	AZ ID.
resource_avail ability	String	Whether the AZ has available resources. ● **true**: There are available resources in the AZ. ● **false**: All resources have been used up in the AZ. Enumeration values: ● **true** ● **false**

Example Requests

GET https://{dcs_endpoint}/v2/available-zones

Example Responses

Status code: 200

The query is successful.

```
{
  "region_id" : "xxxxxx",
  "available_zones" : [ {
    "code" : "xxxxxx",
    "port" : "8403",
    "name" : "AZ 1.",
    "id" : "effdcbc7d4d64a02aa1fa26b42f56533",
    "resource_availability" : "true"
  }, {
    "code" : "xxxxxx",
    "port" : "8404",
    "name" : "AZ 2.",
    "id" : "a0865121f83b41cbafce65930a22a6e8",
    "resource_availability" : "true"
  }, {
    "code" : "xxxxxx",
    "port" : "8408",
    "name" : "AZ 3.",
    "id" : "2dcb154ac2724a6d92e9bcc859657c1e",
    "resource_availability" : "true"
  } ]
}
```

Status Codes

Status Code	Description
200	The query is successful.

Error Codes

See **Error Codes**.

4.13 Instance Management

4.13.1 Master/Standby Switchover

Function

This API is used to perform a master/standby switchover. Only master/standby instances support this operation.

URI

POST /v2/{project_id}/instances/{instance_id}/swap

Table 4-437 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
project_id	Yes	String	Project ID.

Request Parameters

None

Response Parameters

Status code: 400

Table 4-438 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 401

Table 4-439 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 403

Table 4-440 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 404

Table 4-441 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-442 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
POST https://{dcs_endpoint}/v2/a4d31cb6-3d72-4fdc-8ec9-6e3a41e47f71/instances/5560df16-
cebf-4473-95c4-d1b573c16e79/swap
```

Example Responses

Status code: 400

Invalid request.

```
{
  "error_msg" : "Master standby swap is not supported.",
  "error_code" : "DCS.4855",
  "error_ext_msg" : null
}
```

Status Codes

Status Code	Description
204	Master/standby switchover performed successfully.
400	Invalid request.
401	Invalid authentication information.
403	The request is rejected.
404	The requested resource is not found.
500	Internal service error.

Error Codes

See **Error Codes**.

4.13.2 Changing the Password

Function

This API is used to change the password of a DCS instance.

URI

PUT /v2/{project_id}/instances/{instance_id}/password

Table 4-443 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
project_id	Yes	String	Project ID.

Request Parameters

Table 4-444 Request body parameters

Parameter	Mandatory	Type	Description
old_password	No	String	Old password.
new_password	No	String	New password.

Response Parameters

Status code: 200

Table 4-445 Response body parameters

Parameter	Type	Description
lock_time	String	Lock duration. If the password authentication fails and the account is locked, the value of this parameter is not **null**.

Parameter	Type	Description
result	String	Password change result: ● **success**: Password is changed successfully. ● **passwordFailed**: Password authentication failed. ● **locked**: The account has been locked. ● **failed**: Password change failed. Enumeration values: ● **success** ● **passwordFailed** ● **locked** ● **failed**
lock_time_left	String	Remaining time before the account is unlocked. When the account is locked, the value of this parameter is not **null**.
retry_times_left	String	Number of remaining password attempts. If the password authentication fails, a response is returned and is not **null**.
message	String	Modification result description.

Status code: 400

Table 4-446 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-447 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
PUT https://{dcs_endpoint}/v2/{project_id}/instances/{instance_id}/password

{
  "old_password" : "XXXXXX",
  "new_password" : "XXXXXX"
}
```

Example Responses

Status code: 200

Password is changed successfully.

```
{
  "lock_time" : "0",
  "result" : "success",
  "lock_time_left" : "0",
  "retry_times_left" : "5",
  "message" : "Modify DCSInstance password success."
}
```

Status Codes

Status Code	Description
200	Password is changed successfully.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.13.3 Querying DCS Instance Statuses

Function

This API is used to query the number of instances in different states.

URI

GET /v2/{project_id}/instances/status

Table 4-448 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Table 4-449 Query Parameters

Parameter	Mandatory	Type	Description
include_failure	No	String	Whether to return the number of instances that fail to be created. • **true**: The number of instances that failed to be created will be returned. • **false** or other values: The number of instances that failed to be created will not be returned.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-450 Response body parameters

Parameter	Type	Description
redis	**StatusStatistic** object	Redis instance quantity statistics.
memcached	**StatusStatistic** object	Memcached instance quantity statistics.

Parameter	Type	Description
paying_count	Integer	Number of instances for which payment is in progress.
freezing_count	Integer	Number of instances that are being frozen.
migrating_count	Integer	Number of instances on which data migration is in progress.
flushing_count	Integer	Number of instances whose data is being cleared.
upgrading_count	Integer	Number of instances that are being upgraded.
restoring_count	Integer	Number of instances for which data restoration is in progress.
extending_count	Integer	Number of instances that are being scaled up.
creating_count	Integer	Number of instances that are being created.
running_count	Integer	Number of running instances.
error_count	Integer	Number of abnormal instances.
frozen_count	Integer	Number of instances that have been frozen.
createfailed_count	Integer	Number of instances that failed to be created.
restarting_count	Integer	Number of instances that are being restarted.

Table 4-451 StatusStatistic

Parameter	Type	Description
paying_count	Integer	Number of instances for which payment is in progress.
freezing_count	Integer	Number of instances that are being frozen.
migrating_count	Integer	Number of instances on which data migration is in progress.
flushing_count	Integer	Number of instances whose data is being cleared.

Parameter	Type	Description
upgrading_count	Integer	Number of instances that are being upgraded.
restoring_count	Integer	Number of instances for which data restoration is in progress.
extending_count	Integer	Number of instances that are being scaled up.
creating_count	Integer	Number of instances that are being created.
running_count	Integer	Number of running instances.
error_count	Integer	Number of abnormal instances.
frozen_count	Integer	Number of instances that have been frozen.
createfailed_count	Integer	Number of instances that failed to be created.
restarting_count	Integer	Number of instances that are being restarted.

Status code: 400

Table 4-452 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-453 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

GET https://{dcs_endpoint}/v2/{project_id}/instances/status?include_failure=true

Example Responses

Status code: 200

DCS instance quantity queried successfully.

```
{
  "extending_count" : 0,
  "creating_count" : 0,
  "running_count" : 16,
  "error_count" : 0,
  "frozen_count" : 0,
  "createfailed_count" : 44,
  "restarting_count" : 0,
  "paying_count" : 0,
  "freezing_count" : 0,
  "migrating_count" : 0,
  "flushing_count" : 0,
  "upgrading_count" : 0,
  "redis" : {
    "extending_count" : 0,
    "creating_count" : 0,
    "running_count" : 8,
    "error_count" : 0,
    "frozen_count" : 0,
    "createfailed_count" : 22,
    "restarting_count" : 0,
    "paying_count" : 0,
    "freezing_count" : 0,
    "migrating_count" : 0,
    "flushing_count" : 0,
    "upgrading_count" : 0
  },
  "memcached" : {
    "extending_count" : 0,
    "creating_count" : 0,
    "running_count" : 8,
    "error_count" : 0,
    "frozen_count" : 0,
    "createfailed_count" : 22,
    "restarting_count" : 0,
    "paying_count" : 0,
    "freezing_count" : 0,
    "migrating_count" : 0,
```

```
    "flushing_count" : 0,
    "upgrading_count" : 0
  }
}
```

Status Codes

Status Code	Description
200	DCS instance quantity queried successfully.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.13.4 Restarting DCS Instances or Clearing DCS Instance Data

Function

This API is used to restart running DCS instances.

This API can also be used to clear data of DCS Redis 4.0 and 5.0 instances. Cleared data cannot be recovered. Exercise caution when performing this operation.

URI

PUT /v2/{project_id}/instances/status

Table 4-454 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Request Parameters

Table 4-455 Request body parameters

Parameter	Mandatory	Type	Description
instances	No	Array of strings	List of instance IDs.

Parameter	Mandatory	Type	Description
action	No	String	Operation on the instance: **restart**: force restart **soft_restart**: restart only the process **flush**: clear data **NOTE** Only DCS Redis 4.0 and 5.0 instances can be flushed.

Response Parameters

Status code: 200

Table 4-456 Response body parameters

Parameter	Type	Description
results	Array of **BatchOpsResult** objects	Result of deleting, restarting, or clearing data of an instance.

Table 4-457 BatchOpsResult

Parameter	Type	Description
result	String	Instance deletion result. Options: **success** and **failed**.
instance	String	DCS instance ID.

Status code: 400

Table 4-458 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**

Parameter	Type	Description
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-459 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

```
PUT https://{dcs_endpoint}/v2/{project_id}/instances/status

{
  "instances" : [ "2e803f66-fbb0-47ad-b6cb-fb87f5bed4ef" ],
  "action" : "restart"
}
```

Example Responses

Status code: 200

DCS instances restarted successfully or the instance data cleared successfully.

```
{
  "results" : [ {
    "instance" : "e3a7019c-8824-4c1a-8289-5300f19b9f64",
    "result" : "success"
  } ]
}
```

Status Codes

Status Code	Description
200	DCS instances restarted successfully or the instance data cleared successfully.

Status Code	Description
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

4.13.5 Querying Statistics of All Running Instances

Function

This API is used to query the statistics of all DCS instances that are in the **Running** state.

URI

GET /v2/{project_id}/instances/statistic

Table 4-460 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-461 Response body parameters

Parameter	Type	Description
statistics	Array of **InstanceStatistic** objects	Statistics of all instances in the **Running** state.

Table 4-462 InstanceStatistic

Parameter	Type	Description
input_kbps	String	Incoming traffic (kbit/s) of the DCS instance.
output_kbps	String	Outgoing traffic (kbit/s) of the DCS instance.
instance_id	String	Instance ID.
keys	Long	Number of cached data records
used_memory	Long	Used memory size in MB.
max_memory	Long	Total memory size in MB.
cmd_get_count	Long	Number of times the GET command is run.
cmd_set_count	Long	Number of times the SET command is run.
used_cpu	String	Accumulated CPU time consumed by the cache in the user state and kernel state, in seconds.

Status code: 400

Table 4-463 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Status code: 500

Table 4-464 Response body parameters

Parameter	Type	Description
error_msg	String	Error message. Maximum: **1024**

Parameter	Type	Description
error_code	String	Error code. Maximum: **9**
error_ext_msg	String	Extended error information. This parameter is not used currently and is set to null. Maximum: **1024**

Example Requests

GET https://{dcs_endpoint}/v2/{project_id}/instances/statistic

Example Responses

Status code: 200

Instance statistics queried successfully.

```
{
  "statistics" : [ {
    "output_kbps" : "0.0",
    "instance_id" : "e008652d-18e0-43ff-924e-072261e0372a",
    "keys" : 0,
    "used_memory" : 0,
    "cmd_get_count" : 0,
    "used_cpu" : "0.0",
    "cmd_set_count" : 0,
    "input_kbps" : "0.0",
    "max_memory" : 460
  }, {
    "output_kbps" : "0.0",
    "instance_id" : "c577a1eb-33b7-42c7-8231-ad32358599ac",
    "keys" : 0,
    "used_memory" : 0,
    "cmd_get_count" : 0,
    "used_cpu" : "0.0",
    "cmd_set_count" : 0,
    "input_kbps" : "0.0",
    "max_memory" : 460
  }, {
    "output_kbps" : "1.19",
    "instance_id" : "e8b98471-55d5-4695-b0bb-8f336a98e207",
    "keys" : 0,
    "used_memory" : 0,
    "cmd_get_count" : 0,
    "used_cpu" : "0.0",
    "cmd_set_count" : 0,
    "input_kbps" : "0.03",
    "max_memory" : 460
  }, {
    "output_kbps" : "0.0",
    "instance_id" : "bc61c690-4b34-4cbe-9ce3-11246aea7aba",
    "keys" : 0,
    "used_memory" : 0,
    "cmd_get_count" : 0,
    "used_cpu" : "0.0",
    "cmd_set_count" : 0,
    "input_kbps" : "0.0",
    "max_memory" : 6963
  } ]
}
```

Status Codes

Status Code	Description
200	Instance statistics queried successfully.
400	Invalid request.
500	Internal service error.

Error Codes

See **Error Codes**.

5 Permissions Policies and Supported Actions

This chapter describes fine-grained permissions management for your DCS. If your account does not need individual IAM users, you can skip the configurations described in this chapter.

By default, new IAM users do not have any permissions assigned. You need to add a user to one or more groups, and assign permissions policies to these groups. The user then inherits permissions from the groups it is a member of. This process is called authorization. After authorization, the user can perform specified operations on cloud services based on the permissions.

You can grant users permissions by using roles and policies. Roles are a type of coarse-grained authorization mechanism that defines permissions related to user responsibilities. Policies define API-based permissions for operations on specific resources under certain conditions, allowing for more fine-grained, secure access control of cloud resources.

☐ **NOTE**

Policy-based authorization is recommended if you want to allow or deny the access to an API.

An account has all the permissions required to call all APIs, and IAM users must be assigned the required permissions. The permissions required for calling an API are determined by the actions supported by the API. Only users that have been granted permissions allowing the actions can call the API successfully. For example, if an IAM user wants to query ECSs using an API, the user must have been granted permissions that allow the **dcs:servers:list** action.

Supported Actions

DCS provides system-defined policies, which can be directly used in IAM. You can also create custom policies to supplement system-defined policies for more refined access control. Actions supported by policies are specific to APIs. Common concepts related to policies include:

- Permissions: Allow or deny certain operations.
- APIs: APIs that will be called for performing certain operations.

- Actions: added to a custom policy to control permissions for specific operations.

- Dependent actions: When assigning permissions for an action, you also need to assign permissions for the dependent actions.

- IAM projects and enterprise projects: type of projects for which an action will take effect. Policies that contain actions supporting both IAM and enterprise projects can be assigned to user groups and take effect in both IAM and Enterprise Management. If an action supports only IAM projects, the policy will take effect only for user groups assigned in IAM. Administrators can check whether an action supports IAM projects or enterprise projects in the action list. "√" indicates that the action supports the project and "×" indicates that the action does not support the project.

Table 5-1 lists the API actions supported by DCS.

Table 5-1 DCS actions

Permission	Action	API	IAM Projects	Enterprise Project
Creating a DCS instance	dcs:instance:create	POST /v1.0/{project_id}/ instances	√	√
Querying an instance	dcs:instance:get	GET /v1.0/{project_id}/ instances/{instance_id}	√	√
Modifying the information about an instance	dcs:instance:modify	PUT /v1.0/{project_id}/ instances/{instance_id}	√	√
Deleting an instance	dcs:instance:delete	DELETE /v1.0/{project_id}/ instances/{instance_id}	√	√
Scaling up an instance	dcs:instance:scale	POST /v1.0/{project_id}/ instances/{instance_id}/ extend	√	√
Querying all instances	dcs:instance:list	GET /v1.0/{project_id}/ instances	√	√
Querying instance configuration parameters	dcs:instance:getConf iguration	GET /v1.0/{project_id}/ instances/{instance_id}/ configs	√	√
Modifying instance configuration parameters	dcs:instance:modify Configureation	PUT /v1.0/{project_id}/ instances/{instance_id}/ configs	√	√

Permission	Action	API	IAM Projects	Enterprise Project
Restarting an instance or clearing instance data	dcs:instance:modify Status	PUT /v1.0/{project_id}/ instances/status	√	√
Changing the instance password	dcs:instance:modify AuthInfo	PUT /v1.0/{project_id}/ instances/{instance_id}/ password	√	√
Backing up an instance	dcs:instance:backup Data	POST /v1.0/{project_id}/ instances/{instance_id}/ backups	√	√
Restoring an instance	dcs:instance:restore Data	POST /v1.0/{project_id}/ instances/{instance_id}/ restores	√	√
Querying backup records	dcs:instance:getDat aBackupLog	GET /v1.0/{project_id}/ instances/{instance_id}/ backups	√	√
Querying restoration records	dcs:instance:getDat aRestoreLog	GET /v1.0/{project_id}/ instances/{instance_id}/ restores	√	√
Deleting backup files	dcs:instance:deleteD ataBackupFile	DELETE /v1.0/{project_id}/ instances/{instance_id}/ backups/{backup_id}	√	√
Querying background tasks	dcs:instance:getBac kgroundTask	GET /v1.0/{project_id}/ instances/{instance_id}/tasks	√	√
Deleting background tasks	dcs:instance:deleteB ackgroundTask	DELETE /v1.0/{project_id}/ instances/{instance_id}/ tasks/{task_id}	√	√
Resetting the instance password	dcs:instance:resetAu thInfo	API not supported.	√	√
Downloading backup files	dcs:instance:downlo adBackupData	API not supported.	√	√
Migrating data	dcs:instance:migrate Data	API not supported.	√	√
Web CLI	dcs:instance:webcli	API not supported.	√	√

Permission	Action	API	IAM Projects	Enterprise Project
Modifying the whitelist of an instance	dcs:whitelist:modify	PUT /v2/{project_id}/ instance/{instance_id}/ whitelist	√	√
Obtaining the whitelist of an instance	dcs:whitelist:list	GET /v2/{project_id}/ instance/{instance_id}/ whitelist	√	√
Creating a user for accessing an instance	dcs:aclaccount:create	POST /v2/{project_id}/ instances/{instance_id}/ accounts	√	√
Deleting an instance user	dcs:aclaccount:delete	DELETE /v2/{project_id}/ instances/{instance_id}/ accounts/{account_id}	√	√
Modifying the information about an instance user	dcs:aclaccount:modify	PUT /v2/{project_id}/ instances/{instance_id}/ accounts/{account_id}	√	√
Obtaining the list of instance users	dcs:aclaccount:list	GET /v2/{project_id}/ instances/{instance_id}/ accounts	√	√

6 Appendix

6.1 Status Codes

Table 6-1 describes status codes.

Table 6-1 Status codes

Status Code	Name	Description
100	Continue	The server has received the initial part of the request and the client should continue to send the remaining part.
101	Switching Protocols	The requester has asked the server to switch protocols and the server has agreed to do so. The target protocol must be more advanced than the source protocol. For example, the current HTTP protocol is switched to a later version of HTTP.
200	OK	The server successfully processed the request.
201	Created	The request has been fulfilled, resulting in the creation of a new resource.
202	Accepted	The request has been accepted for processing, but the processing has not been completed.
203	Non-Authoritative Information	The request has been fulfilled.
204	NoContent	The server has successfully processed the request, but is not returning any content. The status code is returned in response to an HTTP OPTIONS request.

Status Code	Name	Description
205	Reset Content	The server has successfully processed the request, but is not returning any content. Unlike a 204 response, this response requires that the requester reset the content.
206	Partial Content	The server has successfully processed a part of the GET request.
300	Multiple Choices	There are multiple options for the requested resource. For example, this code could be used to present a list of resource characteristics and addresses from which the client such as a browser may choose.
301	Moved Permanently	This and all future requests should be permanently directed to the given URI indicated in this response.
302	Found	The requested resource was temporarily moved.
303	See Other	The response to the request can be found under another URI using a GET or POST method.
304	Not Modified	The requested resource has not been modified. In such case, there is no need to retransmit the resource since the client still has a previously-downloaded copy.
305	Use Proxy	The requested resource is available only through a proxy.
306	Unused	This HTTP status code is no longer used.
400	BadRequest	The request is invalid. The client should modify the request instead of re-initiating it.
401	Unauthorized	The authentication information provided by the client is incorrect or invalid.
402	Payment Required	Reserved for future use.
403	Forbidden	The server has received the request and understood it, but the server is refusing to respond to it. The client should modify the request instead of re-initiating it.

Status Code	Name	Description
404	NotFound	The requested resource could not be found. The client should modify the request instead of re-initiating it.
405	MethodNotAllowed	A request method is not supported for the requested resource. The client should modify the request instead of re-initiating it.
406	Not Acceptable	The server could not fulfill the request according to the content characteristics of the request.
407	Proxy Authentication Required	This code is similar to 401, but indicates that the client must first authenticate itself with the proxy.
408	Request Time-out	The server timed out waiting for the request. The client may re-initiate the request without modifications at any later time.
409	Conflict	The request could not be processed due to a conflict in the request, such as an edit conflict between multiple simultaneous updates or the resource that the client attempts to create already exits.
410	Gone	The requested resource has been deleted permanently and will not be available again.
411	Length Required	The server refused to process the request because the request does not specify the length of its content.
412	Precondition Failed	The server does not meet one of the preconditions that the requester puts on the request.
413	Request Entity Too Large	The request is larger than the server is willing or able to process. The server may close the connection to prevent the client from continuing the request. If the server temporarily cannot process the request, the response will contain a Retry-After header field.
414	Request-URI Too Large	The URI provided was too long for the server to process.
415	Unsupported Media Type	The server does not support the media type in the request.

Status Code	Name	Description
416	Requested range not satisfiable	The requested range is invalid.
417	Expectation Failed	The server fails to meet the requirements of the Expect request-header field.
422	UnprocessableEntity	The request was well-formed but was unable to be followed due to semantic errors.
429	TooManyRequests	The client has sent more requests than its rate limit is allowed within a given amount of time, or the server has received more requests than it is able to process within a given amount of time. In this case, it is advisable for the client to re-initiate requests after the time specified in the Retry-After header of the response expires.
500	InternalServerError	The server is able to receive the request but it could not understand the request.
501	Not Implemented	The server does not support the requested function.
502	Bad Gateway	The server was acting as a gateway or proxy and received an invalid request from a remote server.
503	ServiceUnavailable	The requested service is invalid. It is advisable for the client to modify the request instead of re-initiating the request.
504	ServerTimeout	The server could not return a timely response. The response will reach the client only if the request carries a timeout parameter.
505	HTTP Version not supported	The server does not support the HTTP protocol version used in the request.

6.2 Error Codes

If an error code starting with APIGW is returned after you call an API, rectify the fault by referring to the instructions provided in **API Gateway Error Codes**.

Status Code	Error Codes	Error Message	Description	Solution
400	111400002	Invalid project ID format.	Invalid project ID format.	Check whether the request parameters are valid.
400	111400004	Empty request body.	Empty request body.	Check whether the request parameters are valid.
400	111400005	The message body contains invalid characters or is not in JSON format.	The message body contains invalid characters or is not in JSON format.	Check whether the request parameters are valid.
400	111400007	The selected cache engine type is not supported.	The selected cache engine type is not supported.	Check whether the request parameters are valid.
400	111400008	The selected cache engine version is not supported.	The selected cache engine version is not supported.	Check whether the request parameters are valid.
400	111400009	Invalid product ID in the request.	Invalid product ID in the request.	Check whether the request parameters are valid.
400	111400010	Invalid DCS instance name. The name must be 4 to 64 characters in length. Only letters (case-insensitive), digits, underscores (_) ,and hyphens (-) are allowed.	Invalid DCS instance name. The name must be 4 to 64 characters in length. Only letters (case-insensitive), digits, underscores (_) ,and hyphens (-) are allowed.	Check whether the request parameters are valid.
400	111400011	DCS instance description cannot exceed 1024 characters.	DCS instance description cannot exceed 1024 characters.	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	111400012	Invalid capacity parameter in the request.	Invalid capacity parameter in the request.	Check whether the request parameters are valid.
400	111400013	Invalid vpc_id in the request.	Invalid vpc_id in the request.	Check whether the request parameters are valid.
400	111400014	Invalid security_group_id in the request.	Invalid security_group_id in the request.	Check whether the request parameters are valid.
400	111400016	Invalid subnet_id in the request.	Invalid subnet_id in the request.	Check whether the request parameters are valid.
400	111400017	This DCS instance job task is still running.	This DCS instance job task is still running.	Try again later.
400	111400018	This subnet must exist in the VPC.	This subnet must exist in the VPC.	Check whether the request parameters are valid.
400	111400019	The password does not meet complexity requirements.	The password does not meet complexity requirements.	Check whether the request parameters are valid.
400	111400020	DHCP must be enabled for this subnet.	DHCP must be enabled for this subnet.	Check whether DHCP has been enabled.
400	111400021	The isAutoRenew parameter in the request must be either 0 or 1.	The isAutoRenew parameter in the request must be either 0 or 1.	Check whether the request parameters are valid.
400	111400022	Engine does not match the product id.	Engine does not match the product id.	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	111400026	This operation is not allowed when the DCS instance is in the current state.	This operation is not allowed when the DCS instance is in the current state.	Try again later or contact technical support.
400	111400027	This operation is not supported on this node.	This operation is not supported on this node.	Try again later or contact technical support.
400	111400035	DCS instance quota of the tenant is insufficient.	DCS instance quota of the tenant is insufficient.	Contact technical support.
400	111400036	Memory quota of the tenant is insufficient.	Memory quota of the tenant is insufficient.	Contact technical support.
400	111400037	The instanceParams parameter in the request contains invalid characters or is not in JSON format.	The instanceParams parameter in the request contains invalid characters or is not in JSON format.	Check whether the request parameters are valid.
400	111400038	The periodNum parameter in the request must be an integer.	The periodNum parameter in the request must be an integer.	Check whether the request parameters are valid.
400	111400039	The quota limit has been reached.	The quota limit has been reached.	Check whether the request parameters are valid.
400	111400042	This AZ does not exist.	This AZ does not exist.	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	111400045	This DCS instance is already unfrozen.	This DCS instance is already unfrozen.	Check whether the request parameters are valid.
400	111400046	This security group does not exist.	This security group does not exist.	Check whether the request parameters are valid.
400	111400047	The periodType parameter in the request must be either 2 or 3.	The periodType parameter in the request must be either 2 or 3.	Check whether the request parameters are valid.
400	111400048	The security group must have both outbound and inbound rules with protocols set to ANY.	The security group must have both outbound and inbound rules with protocols set to ANY.	Check whether the request parameters are valid.
400	111400053	the upgrade instance version equals to current version.	the upgrade instance version equals to current version.	Check whether the request parameters are valid.
400	111400054	the selected available zone quota not enough.	the selected available zone quota not enough.	Select another AZ or contact technical support.
400	111400060	This DCS instance name already exists.	This DCS instance name already exists.	Check whether the request parameters are valid.
400	111400061	Invalid instance ID format.	Invalid instance ID format.	Check whether the request parameters are valid.
400	111400062	Invalid {0} parameter in the request.	Invalid {0} parameter in the request.	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	111400063	Invalid {0} parameter in the request.	Invalid {0} parameter in the request.	Check whether the request parameters are valid.
400	111400064	The action parameter in the request must be start, stop, or restart.	The action parameter in the request must be start, stop, or restart.	Check whether the request parameters are valid.
400	111400065	The instances parameter in the request cannot be a null value or left unspecified.	The instances parameter in the request cannot be a null value or left unspecified.	Check whether the request parameters are valid.
400	111400066	Invalid value of the configure parameter {0}.	Invalid value of the configure parameter {0}.	Check whether the request parameters are valid.
400	111400067	The available_zon es parameter in the request must an array that contains only one AZ ID.	The available_zon es parameter in the request must an array that contains only one AZ ID.	Check whether the request parameters are valid.
400	111400068	This VPC does not exist.	This VPC does not exist.	Check whether the request parameters are valid.
400	111400070	Invalid task ID format.	Invalid task ID format.	Check whether the request parameters are valid.
400	111400072	Invalid saveDays instance backup policy parameter in the request.	Invalid saveDays instance backup policy parameter in the request.	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	111400073	Invalid backupType instance backup policy parameter in the request.	Invalid backupType instance backup policy parameter in the request.	Check whether the request parameters are valid.
400	111400074	Invalid periodType instance backup policy parameter in the request.	Invalid periodType instance backup policy parameter in the request.	Check whether the request parameters are valid.
400	111400075	Invalid backupAt instance backup policy parameter in the request.	Invalid backupAt instance backup policy parameter in the request.	Check whether the request parameters are valid.
400	111400076	Invalid beginAt instance backup policy parameter in the request.	Invalid beginAt instance backup policy parameter in the request.	Check whether the request parameters are valid.
400	111400080	Instance password verify failed.	Instance password verify failed.	Check whether the request parameters are valid.
400	111400086	only master standby instance is support this action	only master standby instance is support this action	Operation not allowed.
400	111400087	the backup record status is err when restore this instance	the backup record status is err when restore this instance	Try again later or contact technical support.
400	111400094	the system is not support dcs job.	the system is not support dcs job.	Operation not allowed.

Status Code	Error Codes	Error Message	Description	Solution
400	111400095	the system is not support backup and restore.	the system is not support backup and restore.	Operation not allowed.
400	111400096	the instance is backuping.	the instance is backuping.	Try again later.
400	111400097	the instance is restoring.	the instance is restoring.	Try again later.
400	111400098	The value of the remark parameter must be 0 to 128 characters in length.	The value of the remark parameter must be 0 to 128 characters in length.	Check whether the request parameters are valid.
400	111400099	DCS instances in the Creating, Starting, Stopping, or Restarting state cannot be deleted.	DCS instances in the Creating, Starting, Stopping, or Restarting state cannot be deleted.	Try again later.
400	111400100	The number of instance IDs in an instances array cannot exceed 50.	The number of instance IDs in an instances array cannot exceed 50.	Check whether the request parameters are valid.
400	111400102	The system is not support resize.	The system is not support resize.	Operation not allowed.
400	111400103	The system is not support resize.	The system is not support resize.	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	111400104	The DCS instance is recovering from an internal fault. Please try again later or contact customer service.	The DCS instance is recovering from an internal fault. Please try again later or contact customer service.	Please try again later or contact the administrator.
400	111400105	The value of reserved-memory cannot be greater than the free memory size of this DCS instance.	The value of reserved-memory cannot be greater than the free memory size of this DCS instance.	Check whether the request parameters are valid.
400	111400106	The value of maintain time illegal.	The value of maintain time illegal.	Check whether the request parameters are valid.
400	111400107	The instance exists for unpaid sacle up orders. Please process non payment orders first.	The instance exists for unpaid sacle up orders. Please process non payment orders first.	Process unpaid orders before continuing.
400	111400108	The Instance exists for processing sacle up order. Please try again later.	The Instance exists for processing sacle up order. Please try again later.	Try again later or contact technical support.
400	111400111	the instance is restarting.	the instance is restarting.	Try again later or contact technical support.
400	111400113	the instance is extending.	the instance is extending.	Try again later or contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
400	111400114	the instance is configuring.	the instance is configuring.	Try again later or contact technical support.
400	111400115	the instance is changing the password.	the instance is changing the password.	Try again later or contact technical support.
400	111400116	the instance is upgrading.	the instance is upgrading.	Try again later or contact technical support.
400	111400117	the instance is rollbacking the version.	the instance is rollbacking the version.	Try again later or contact technical support.
400	111400118	the instance is creating.	the instance is creating.	Try again later or contact technical support.
400	111400119	Query Bill Sample failed	Query Bill Sample failed	Check whether the request parameters are valid.
400	111400120	the instance is Freezing.	the instance is Freezing.	Try again later or contact technical support.
400	111400800	Invalid {0} in the request.	Invalid {0} in the request.	Check whether the request parameters are valid.
400	111400843	The no_password_ access parameter is missing or its value is invalid.	The no_password_ access parameter is missing or its value is invalid.	Check whether the request parameters are valid.
400	111400844	The access_user parameter is missing or its value is invalid.	The access_user parameter is missing or its value is invalid.	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	111400845	The password parameter is missing or its value is invalid.	The password parameter is missing or its value is invalid.	Check whether the request parameters are valid.
400	111400849	The request parameter new_password should not exist.	The request parameter new_password should not exist.	Check whether the request parameters are valid.
400	111400850	This operation is not supported when Password-Free Access is enabled for the instance.	This operation is not supported when Password-Free Access is enabled for the instance.	Reset the instance password.
400	111400857	DCS instances cannot be deleted if they are billed on a yearly/ monthly basis.	DCS instances cannot be deleted if they are billed on a yearly/ monthly basis.	If you want to stop using instances billed on a yearly/ monthly basis, unsubscribe from them.
400	DCS. 4855	Master standby swap is not supported.	Master standby swap is not supported.	Operation not allowed.
400	DCS.4002	Invalid project ID format.	Invalid project ID format.	Check whether the request parameters are valid.
400	DCS.4004	Empty request body.	Empty request body.	Check whether the request parameters are valid.
400	DCS.4005	The message body contains invalid characters or is not in JSON format.	The message body contains invalid characters or is not in JSON format.	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	DCS.4007	The selected cache engine type is not supported.	The selected cache engine type is not supported.	Check whether the request parameters are valid.
400	DCS.4008	The selected cache engine version is not supported.	The selected cache engine version is not supported.	Check whether the request parameters are valid.
400	DCS.4009	Invalid product ID in the request.	Invalid product ID in the request.	Check whether the request parameters are valid.
400	DCS.4010	Invalid DCS instance name. The name must be 4 to 64 characters in length. Only letters (case-insensitive), digits, underscores (_) ,and hyphens (-) are allowed.	Invalid DCS instance name. The name must be 4 to 64 characters in length. Only letters (case-insensitive), digits, underscores (_) ,and hyphens (-) are allowed.	Check whether the request parameters are valid.
400	DCS.4011	DCS instance description cannot exceed 1024 characters.	DCS instance description cannot exceed 1024 characters.	Check whether the request parameters are valid.
400	DCS.4012	Invalid capacity parameter in the request.	Invalid capacity parameter in the request.	Check whether the request parameters are valid.
400	DCS.4013	Invalid vpc_id in the request.	Invalid vpc_id in the request.	Check whether the request parameters are valid.
400	DCS.4014	Invalid security_group_id in the request.	Invalid security_group_id in the request.	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	DCS.4016	Invalid subnet_id in the request.	Invalid subnet_id in the request.	Check whether the request parameters are valid.
400	DCS.4017	This DCS instance job task is still running.	This DCS instance job task is still running.	Check whether the request parameters are valid.
400	DCS.4018	This subnet must exist in the VPC.	This subnet must exist in the VPC.	Try again later.
400	DCS.4019	The password does not meet complexity requirements.	The password does not meet complexity requirements.	Check whether the request parameters are valid.
400	DCS.4020	DHCP must be enabled for this subnet.	DHCP must be enabled for this subnet.	Check whether the request parameters are valid.
400	DCS.4021	The isAutoRenew parameter in the request must be either 0 or 1.	The isAutoRenew parameter in the request must be either 0 or 1.	Check whether DHCP has been enabled.
400	DCS.4026	This operation is not allowed when the DCS instance is in the current state.	This operation is not allowed when the DCS instance is in the current state.	Check whether the request parameters are valid.
400	DCS.4027	This operation is not supported on this node.	This operation is not supported on this node.	Check whether the request parameters are valid.
400	DCS.4035	DCS instance quota of the tenant is insufficient.	DCS instance quota of the tenant is insufficient.	Try again later or contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
400	DCS.4036	Memory quota of the tenant is insufficient.	Memory quota of the tenant is insufficient.	Try again later or contact technical support.
400	DCS.4037	The instanceParams parameter in the request contains invalid characters or is not in JSON format.	The instanceParams parameter in the request contains invalid characters or is not in JSON format.	Contact technical support.
400	DCS.4038	The periodNum parameter in the request must be an integer.	The periodNum parameter in the request must be an integer.	Contact technical support.
400	DCS.4039	The quota limit has been reached.	The quota limit has been reached.	Check whether the request parameters are valid.
400	DCS.4042	This AZ does not exist.	This AZ does not exist.	Check whether the request parameters are valid.
400	DCS.4045	This DCS instance is already unfrozen.	This DCS instance is already unfrozen.	Check whether the request parameters are valid.
400	DCS.4046	This security group does not exist.	This security group does not exist.	Check whether the request parameters are valid.
400	DCS.4047	The periodType parameter in the request must be either 2 or 3.	The periodType parameter in the request must be either 2 or 3.	Try again later or contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
400	DCS.4048	The security group must have both outbound and inbound rules with protocols set to ANY.	The security group must have both outbound and inbound rules with protocols set to ANY.	Check whether the request parameters are valid.
400	DCS.4049	The instance status is not running.	The instance status is not running.	Check whether the request parameters are valid.
400	DCS.4053	the upgrade instance version equals to current version.	the upgrade instance version equals to current version.	Check whether the request parameters are valid.
400	DCS.4054	the selected available zone quota not enough.	the selected available zone quota not enough.	Contact technical support.
400	DCS.4060	This DCS instance name already exists.	This DCS instance name already exists.	Check whether the request parameters are valid.
400	DCS.4061	Invalid instance ID format.	Invalid instance ID format.	Select another AZ or contact technical support.
400	DCS.4062	Invalid {0} parameter in the request.	Invalid {0} parameter in the request.	Check whether the request parameters are valid.
400	DCS.4063	Invalid {0} parameter in the request.	Invalid {0} parameter in the request.	Check whether the request parameters are valid.
400	DCS.4064	The action parameter in the request must be start, stop, or restart.	The action parameter in the request must be start, stop, or restart.	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	DCS.4065	The instances parameter in the request cannot be a null value or left unspecified.	The instances parameter in the request cannot be a null value or left unspecified.	Check whether the request parameters are valid.
400	DCS.4066	Invalid value of the configure parameter {0}.	Invalid value of the configure parameter {0}.	Check whether the request parameters are valid.
400	DCS.4067	The available_zones parameter in the request must an array that contains only one AZ ID.	The available_zones parameter in the request must an array that contains only one AZ ID.	Check whether the request parameters are valid.
400	DCS.4068	This VPC does not exist.	This VPC does not exist.	Check whether the request parameters are valid.
400	DCS.4070	Invalid task ID format.	Invalid task ID format.	Check whether the request parameters are valid.
400	DCS.4072	Invalid saveDays instance backup policy parameter in the request.	Invalid saveDays instance backup policy parameter in the request.	Check whether the request parameters are valid.
400	DCS.4073	Invalid backupType instance backup policy parameter in the request.	Invalid backupType instance backup policy parameter in the request.	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	DCS.4074	Invalid periodType instance backup policy parameter in the request.	Invalid periodType instance backup policy parameter in the request.	Check whether the request parameters are valid.
400	DCS.4075	Invalid backupAt instance backup policy parameter in the request.	Invalid backupAt instance backup policy parameter in the request.	Check whether the request parameters are valid.
400	DCS.4076	Invalid beginAt instance backup policy parameter in the request.	Invalid beginAt instance backup policy parameter in the request.	Check whether the request parameters are valid.
400	DCS.4080	Instance password verify failed.	Instance password verify failed.	Check whether the request parameters are valid.
400	DCS.4086	only master standby instance is support this action	only master standby instance is support this action	Check whether the request parameters are valid.
400	DCS.4087	the backup record status is err when restore this instance	the backup record status is err when restore this instance	Check whether the request parameters are valid.
400	DCS.4094	the system is not support dcs job.	the system is not support dcs job.	Operation not allowed.
400	DCS.4095	the system is not support backup and restore.	the system is not support backup and restore.	Try again later or contact technical support.
400	DCS.4096	the instance is backuping.	the instance is backuping.	Operation not allowed.
400	DCS.4097	the instance is restoring.	the instance is restoring.	Operation not allowed.

Status Code	Error Codes	Error Message	Description	Solution
400	DCS.4098	The value of the remark parameter must be 0 to 128 characters in length.	The value of the remark parameter must be 0 to 128 characters in length.	Try again later or contact technical support.
400	DCS.4099	DCS instances in the Creating, Starting, Stopping, or Restarting state cannot be deleted.	DCS instances in the Creating, Starting, Stopping, or Restarting state cannot be deleted.	Try again later or contact technical support.
400	DCS.4100	The number of instance IDs in an instances array cannot exceed 50.	The number of instance IDs in an instances array cannot exceed 50.	Check whether the request parameters are valid.
400	DCS.4102	The system is not support resize.	The system is not support resize.	Try again later.
400	DCS.4103	The system is not support resize.	The system is not support resize.	Check whether the request parameters are valid.
400	DCS.4104	The DCS instance is recovering from an internal fault. Please try again later or contact customer service.	The DCS instance is recovering from an internal fault. Please try again later or contact customer service.	Operation not allowed.

Status Code	Error Codes	Error Message	Description	Solution
400	DCS.4105	The value of reserved-memory cannot be greater than the free memory size of this DCS instance.	The value of reserved-memory cannot be greater than the free memory size of this DCS instance.	Check whether the request parameters are valid.
400	DCS.4106	The value of maintain time illegal.	The value of maintain time illegal.	Please try again later or contact the administrator.
400	DCS.4107	The instance exists for unpaid sacle up orders. Please process non payment orders first.	The instance exists for unpaid sacle up orders. Please process non payment orders first.	Check whether the request parameters are valid.
400	DCS.4108	The Instance exists for processing sacle up order. Please try again later.	The Instance exists for processing sacle up order. Please try again later.	Check whether the request parameters are valid.
400	DCS.4111	the instance is restarting.	the instance is restarting.	Process unpaid orders before continuing.
400	DCS.4113	the instance is extending.	the instance is extending.	Try again later or contact technical support.
400	DCS.4114	the instance is configuring.	the instance is configuring.	Try again later or contact technical support.
400	DCS.4115	the instance is changing the password.	the instance is changing the password.	Try again later or contact technical support.
400	DCS.4116	the instance is upgrading.	the instance is upgrading.	Try again later or contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
400	DCS.4117	the instance is rollbacking the version.	the instance is rollbacking the version.	Try again later or contact technical support.
400	DCS.4118	the instance is creating.	the instance is creating.	Try again later or contact technical support.
400	DCS.4119	Query Bill Sample failed	Query Bill Sample failed	Try again later or contact technical support.
400	DCS.4120	the instance is Freezing.	the instance is Freezing.	Try again later or contact technical support.
400	DCS.4300	Client IP transparent transmission is being processed, please do not submit it repeatedly.	Client IP transparent transmission is being processed, please do not submit it repeatedly.	Check whether the request parameters are valid.
400	DCS.4800	Invalid {0} in the request.	Invalid {0} in the request.	Try again later or contact technical support.
400	DCS.4819	The first_scan_at parameter is invalid. Its must be ISO format utc date-time. The time must be later than the current time.	first_scan_at must be ISO format utc date-time. The time must be later than the current time.	Check whether the request parameters are valid.
400	DCS.4820	The interval parameter is invalid. must Greater than or equal to 0.	The interval parameter is invalid. must Greater than or equal to 0.	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	DCS.4821	The timeout parameter is invalid. Its must Greater than or equal to interval * 2, if interval is 0, timeout must Greater than 1 second.	The timeout parameter is invalid. Its must Greater than or equal to interval * 2, if interval is 0, timeout must Greater than 1 second.	Check whether the request parameters are valid.
400	DCS.4822	The scan_keys_count parameter is invalid. Its must Greater than or equal to 10, and Less than or equal to 1000.	The scan_keys_count parameter is invalid. Its must Greater than or equal to 10, and Less than or equal to 1000.	Check whether the request parameters are valid.
400	DCS.4838	Do not support feature client ip transparent transmission.	Do not support feature client ip transparent transmission.	Check whether the request parameters are valid.
400	DCS.4839	Do not support feature public dns.	Do not support feature public dns.	Check whether the request parameters are valid.
400	DCS.4840	Do not support feature dns.	Do not support feature dns.	Check whether the request parameters are valid.
400	DCS.4841	Instance do not support client ip transparent transmission.	Instance do not support client ip transparent transmission.	Check whether the request parameters are valid.
400	DCS.4843	The no_password_access parameter is missing or its value is invalid.	The no_password_access parameter is missing or its value is invalid.	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	DCS.4844	The access_user parameter is missing or its value is invalid.	The access_user parameter is missing or its value is invalid.	Check the quantity of IP addresses in the subnet. Release IP addresses that are no longer used or use another subnet that has sufficient IP addresses.
400	DCS.4845	The password parameter is missing or its value is invalid.	The password parameter is missing or its value is invalid.	Try again later.
400	DCS.4846	Client ip transparent transmission is already closed,please do not repeat the operation.	Client ip transparent transmission is already closed,please do not repeat the operation.	Operation not allowed.
400	DCS.4847	Client ip transparent transmission is already opened,please do not repeat the operation.	Client ip transparent transmission is already opened,please do not repeat the operation.	Check whether the request parameters are valid.
400	DCS.4848	Client Management is not supported.	Client Management is not supported.	Check whether the request parameters are valid.
400	DCS.4849	The request parameter new_password should not exist.	The request parameter new_password should not exist.	Contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
400	DCS.4850	This operation is not supported when Password-Free Access is enabled for the instance.	This operation is not supported when Password-Free Access is enabled for the instance.	Check whether the request parameters are valid.
400	DCS.4857	DCS instances cannot be deleted if they are billed on a yearly/monthly basis.	DCS instances cannot be deleted if they are billed on a yearly/monthly basis.	Select another AZ or contact technical support.
400	DCS.4875	Create replication number exceed max number limit.	Create replication number exceed max number limit.	Check whether the request parameters are valid.
400	DCS.4879	r/w instance have only one repl can not remove ip from dns	r/w instance have only one repl can not remove ip from dns	Check whether the request parameters are valid.
400	DCS.4911	The network ip insufficient.	The network ip insufficient.	Check whether the request parameters are valid.
400	DCS.4918	Instance bigkey analyze is running.	Instance bigkey analyze is running.	Check whether the request parameters are valid.
400	DCS.4919	Does not support bigkey analyze.	Does not support bigkey analyze.	Check whether the request parameters are valid.
400	DCS.4930	The request param node_list is invalid	The request param node_list is invalid	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	DCS.4931	Node is not replica, can't delete.	Node is not replica, can't delete.	Check whether the request parameters are valid.
400	DCS.4935	Only one slave replication has dns ip, can not delete	Only one slave replication has dns ip, can not delete	Check whether the request parameters are valid.
400	DCS.4936	The master node cannot be deleted	The master node cannot be deleted	Check whether the request parameters are valid.
400	DCS.4937	Only has one slave node,can not delete	Only has one slave node,can not delete	Check whether the request parameters are valid.
400	DCS.4939	The param slave_priority_ weight is invalid.	The param slave_priority_ weight is invalid.	Check whether the request parameters are valid.
400	DCS.4941	The hotkey id does not exist.	The hotkey id does not exist.	Check whether the request parameters are valid.
400	DCS.4942	The bigkey id does not exist.	The bigkey id does not exist.	Check whether the request parameters are valid.
400	DCS.4957	This operation is not allowed when the task is in the current state.	This operation is not allowed when the task is in the current state.	Check whether the request parameters are valid.
400	DCS.4998	Domain names are up to date.	Domain names are up to date.	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	DCS.4999	Do not support feature update domain name.	Do not support feature update domain name.	Check whether the request parameters are valid.
401	111401001	Invalid token.	Invalid token.	Operation not allowed.
401	111401002	Token expired.	Token expired.	Try again later or contact technical support.
401	111401003	No token in the request.	No token in the request.	Operation not allowed.
401	111401004	Project ID does not match the token.	Project ID does not match the token.	Operation not allowed.
401	DCS.1001	Invalid token.	Invalid token.	Try again later or contact technical support.
401	DCS.1002	Token expired.	Token expired.	Try again later or contact technical support.
401	DCS.1003	No token in the request.	No token in the request.	Check whether the request parameters are valid.
401	DCS.1004	Project ID does not match the token.	Project ID does not match the token.	Try again later.
403	111403002	This tenant has read permission only and cannot perform this operation.	This tenant has read permission only and cannot perform this operation.	Check whether the request parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
403	111403003	This role does not have the permission to perform this operation.	This role does not have the permission to perform this operation.	Operation not allowed.
403	DCS.2003	This role does not have the permission to perform this operation.	This role does not have the permission to perform this operation.	Check whether the request parameters are valid.
403	DCS.2007	Policy does not allow {} to be performed.	Policy does not allow {} to be performed.	Please try again later or contact the administrator.
403	DCS.3002	This tenant has read permission only and cannot perform this operation.	This tenant has read permission only and cannot perform this operation.	Check whether the request parameters are valid.
404	111404001	The requested URL does not exist.	The requested URL does not exist.	Check whether the request parameters are valid.
404	111404022	This DCS instance does not exist.	This DCS instance does not exist.	Process unpaid orders before continuing.
404	111404023	This DCS order does not exist.	This DCS order does not exist.	Try again later or contact technical support.
404	DCS.3022	This DCS instance does not exist.	This DCS instance does not exist.	Try again later or contact technical support.
404	DCS.4001	The requested URL does not exist.	The requested URL does not exist.	Try again later or contact technical support.
404	DCS.4023	This DCS order does not exist.	This DCS order does not exist.	Try again later or contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
405	111405001	This request method is not allowed.	This request method is not allowed.	Try again later or contact technical support.
405	DCS.5001	This request method is not allowed.	This request method is not allowed.	Try again later or contact technical support.
500	111400069	Another user is modifying configuration parameters of the DCS instance. Please try again later.	Another user is modifying configuration parameters of the DCS instance. Please try again later.	Try again later.
500	111400101	Delete instance backup file failed.	Delete instance backup file failed.	Contact technical support.
500	111400842	job execution status failed.	job execution status failed.	Contact technical support.
500	111500000	Internal service error.	Internal service error.	Contact technical support.
500	111500006	Internal service error.	Internal service error.	Contact technical support.
500	111500017	Internal service error.	Internal service error.	Contact technical support.
500	111500020	vm add port fail	vm add port fail	Contact technical support.
500	111500024	Internal service error.	Internal service error.	Contact technical support.
500	111500031	create instance fail	create instance fail	Contact technical support.
500	111500032	Internal service error.	Internal service error.	Contact technical support.
500	111500037	query order info fail	query order info fail	Try again later or contact technical support.
500	111500041	No resource tenant available.	No resource tenant available.	Try again later or contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
500	111500044	update resource status fail	update resource status fail	Try again later or contact technical support.
500	111500053	Internal service error.	Internal service error.	Contact technical support.
500	111500054	Internal service error.	Internal service error.	Contact technical support.
500	111500070	Internal service error.	Internal service error.	Contact technical support.
500	111500071	Internal service error.	Internal service error.	Contact technical support.
500	111500077	Internal service error.	Internal service error.	Contact technical support.
500	111500078	Internal service error.	Internal service error.	Contact technical support.
500	111500079	Internal service error.	Internal service error.	Contact technical support.
500	111500082	Internal service error.	Internal service error.	Contact technical support.
500	111500083	Internal service error.	Internal service error.	Contact technical support.
500	111500085	Internal service error.	Internal service error.	Contact technical support.
500	111500090	Internal service error.	Internal service error.	Contact technical support.
500	111500091	Internal service error.	Internal service error.	Contact technical support.
500	111500092	Internal service error.	Internal service error.	Contact technical support.
500	111500095	Internal service error.	Internal service error.	Contact technical support.
500	111500104	Internal service error.	Internal service error.	Contact technical support.
500	DCS. 5094	Master standby swap failed.	Master standby swap failed.	Contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
500	DCS.4069	Another user is modifying configuration parameters of the DCS instance. Please try again later.	Another user is modifying configuration parameters of the DCS instance. Please try again later.	Try again later.
500	DCS.4101	Delete instance backup file failed.	Delete instance backup file failed.	Contact technical support.
500	DCS.4842	job execution status failed.	job execution status failed.	Contact technical support.
500	DCS.5000	Internal service error.	Internal service error.	Contact technical support.
500	DCS.5006	Submit job failed.	Submit job failed.	Contact technical support.
500	DCS.5017	Failed to save instance information.	Failed to save instance information.	Contact technical support.
500	DCS.5020	vm add port fail	vm add port fail	Contact technical support.
500	DCS.5024	Query instance failed.	Query instance failed.	Contact technical support.
500	DCS.5031	create instance fail	create instance fail	Contact technical support.
500	DCS.5032	Failed to create order.	Failed to create order.	Contact technical support.
500	DCS.5037	query order info fail	query order info fail	Contact technical support.
500	DCS.5041	No resource tenant available.	No resource tenant available.	Contact technical support.
500	DCS.5044	update resource status fail	update resource status fail	Contact technical support.
500	DCS.5053	Instance node not found.	Instance node not found.	Contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
500	DCS.5054	Failed to generate password.	Failed to generate password.	Contact technical support.
500	DCS.5070	Internal service error.	Internal service error.	Contact technical support.
500	DCS.5071	Failed to create instance backup strategy.	Failed to create instance backup strategy.	Contact technical support.
500	DCS.5077	Query instance failed.	Query instance backup strategy failed	Contact technical support.
500	DCS.5078	Query backup record failed.	Query backup record failed.	Contact technical support.
500	DCS.5079	Query restore record failed.	Query restore record failed.	Contact technical support.
500	DCS.5081	The resource tenant does not exist.	The resource tenant does not exist.	Contact technical support.
500	DCS.5082	Failed to register resource tenant backup user.	Failed to register resource tenant backup user.	Contact technical support.
500	DCS.5083	Failed to save backup user.	Failed to save backup user.	Contact technical support.
500	DCS.5085	Failed to update backup strategy.	Failed to update backup strategy.	Contact technical support.
500	DCS.5090	Failed to save backup information.	Failed to save backup information.	Contact technical support.
500	DCS.5091	Script execution failed.	Script execution failed.	Contact technical support.
500	DCS.5092	Failed to save and restore data.	Failed to save and restore data.	Contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
500	DCS.5095	The script execution failed and needs to be retried.	The script execution failed and needs to be retried.	Contact technical support.
500	DCS.5104	Failed to modify order.	Failed to modify order.	Contact technical support.

6.3 Obtaining a Project ID

Obtaining a Project ID on the Console

A project ID is required for some URLs when an API is called. You can obtain a project ID on the console.

The following procedure describes how to obtain a project ID:

**Step 1** Sign up and log in to the management console.

----End

6.4 Obtaining the Account Name and Account ID

The account name and account ID are required for some URLs when an API is called. To obtain the account name and account ID, perform the following operations:

1. Log in to the management console.
2. Click the username and select **Basic Information** from the drop-down list.
3. Click **Manage** next to **Security Credentials**.

   On the **My Credentials** page, view the **Account Name** and **Account ID**.

Figure 6-1 Viewing the account name and account ID
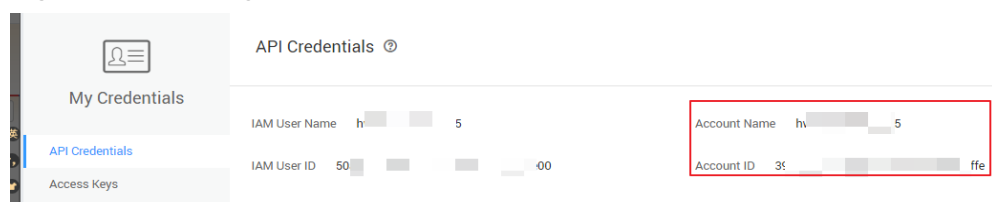
6.5 DCS Instance Statuses

Table 6-2 DCS instance statuses

State	Description
CREATING	Creating is the status before the Running state.
CREATEFAILED	The DCS instance failed to be created.
RUNNING	The instance is running properly. Only instances in the Running state can provide in-memory cache service.
ERROR	The instance is not running properly.
RESTARTING	The instance is being restarted.
FROZEN	The instance has been frozen due to low balance. You can unfreeze the instance by recharging your account in My Order.
EXTENDING	The instance is being scaled up.
RESTORING	The instance data is being restored.
FLUSHING	The DCS instance is being cleared.

6.6 Instance Diagnosis IDs

Table 6-3 cause_ids

ID	Type	Description
1	cause	The number of connected clients exceeds {THRESHOLD}.
2	cause	The instantaneous traffic is too high.
3	cause	The underlying disk is abnormal.
4	cause	Data persistence failed.
5	cause	Memory usage exceeds {THRESHOLD}.
6	cause	RDB persistence is enabled. Memory usage exceeds {THRESHOLD}.

ID	Type	Description
7	cause	Excessive memory fragmentation.
8	cause	Cache hit rate is lower than {THRESHOLD}.
9	cause	Too many keys have expired at the same time.
10	cause	The following commands with time complexity O(N) are executed: {COMMANDS}
11	cause	CPU usage exceeds {THRESHOLD}.
12	cause	Data is persisted.
13	cause	QPS has increased.

Table 6-4 impact_ids

ID	Type	Description
1	impact	Redis connections will be refused.
2	impact	Redis will be disconnected.
3	impact	Redis responses will slow down.
4	impact	RDB persistence will fail.
5	impact	Cache hit ratio will decrease.
6	impact	AOF persistence will fail.

Table 6-5 advice_ids

ID	Type	Description
1	advice	Retrieve connections from the connection pool.

ID	Type	Description
2	advice	Use read/write splitting or a cluster.
3	advice	Expand the capacity of the instance.
4	advice	Manually run the **MEMORY PURGE** command during low-demand hours.
5	advice	Check the Redis usage or reduce the cache granularity to avoid memory eviction.
6	advice	Set different expiration time for the keys.
7	advice	Do not use commands with time complexity of O(N).