



Document Database Service

API Reference

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1 Before You Start

1.1 Overview

Welcome to *Document Database Service API Reference*. This document describes how to use application programming interfaces (APIs) to perform operations on DDS, such as creating, deleting, and querying DB instances. For details about all supported operations, see [API Overview](#).

If you plan to access DDS through an API, ensure that you are familiar with DDS concepts. For details, see *Document Database Service User Guide*.

1.2 API Calling

DDS supports 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 Constraints

- For more constraints, see API description.

1.5 Concepts

- Account

An account is generated after your registration. An account has full access permissions for all the resources and cloud services under the account. It can reset user passwords and grant users permissions. The account is a payment entity, which should not be used directly to perform routine management. To

ensure account security, create IAM users and grant them permissions for routine management.

- IAM User

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

API authentication requires information such as the account name, username, and password.

- Region

A region is a geographic area in which cloud resources are deployed.

Availability zones (AZs) in the same region can communicate with each other over an intranet, while AZs in different regions are isolated from each other.

Deploying cloud resources in different regions can better suit certain user requirements or comply with local laws or regulations.

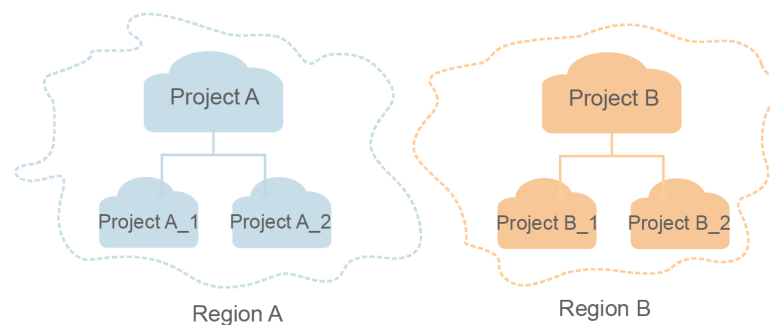
- AZ

An AZ comprises one or multiple physical data centers equipped with independent ventilation, fire, water, and electricity facilities. Computing, network, storage, and other resources in an AZ are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to allow users to build cross-AZ high-availability systems.

- Project

A project corresponds to a region. Default projects are defined to a group and have physically isolated resources (including computing, storage, and network resources) across regions. Users can be granted permissions in a default project to access all resources in the region associated with the project. If you need more refined access control, create subprojects under a default project and create resources in subprojects. Then you can assign users the permissions required to access only the resources in the specific subprojects.

Figure 1-1 Project isolating model



- Enterprise Project

Enterprise projects group and manage resources across regions. Resources in enterprise projects are logically isolated from each other. An enterprise project can contain resources of multiple regions, and resources can be added to or removed from enterprise projects.

2 API Overview

DDS provides extension APIs, allowing you to perform specific operations using APIs.

Table 2-1 API description

Type	Description
API Version Queries	• Query all API versions. • Query a specified API version.
Database Version Information Queries	Obtain database version information about a specified instance type.
All DB Instance Specifications Queries	Query all DB instance specifications in a specified region.
DB Instance Management	Manage DB instances, including creating a DB instance, deleting a DB instance, querying DB instances, adjusting instance storage space, adding nodes of cluster instances, and changing DB instance specifications.
Backup and Restoration	Back up and restore data, including creating a manual backup, deleting a manual backup, setting an automated backup policy, and querying an automated backup policy.
Tag Management	Manage tags, including querying resources by tag, adding and deleting a tag or tags, and querying resource tags and project tags.

3 Calling APIs

3.1 Making an API Request

This section describes the structure of a REST API, 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.

Table 3-1 URI parameter description

Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Specifies the domain name or IP address of the server bearing the REST service endpoint. Obtain the value from Regions and Endpoints .
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.

Request Methods

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

Table 3-2 HTTP methods

Method	Description
GET	Requests a server to return the specified resources.
PUT	Requests a server to update specified resources.
POST	Requests a server to add resources or perform special operations.
DELETE	Requests a server to delete specified resources, for example, an object.

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

```
POST https://{{endpoint}}/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.

Table 3-3 lists common request header fields.

Table 3-3 Common request header fields

Name	Description	Mandatory	Example
Content-Type	Specifies the MIME type of the request body. You are advised to use the default value application/json . For APIs used to upload objects or images, the value can vary depending on the flow type.	Yes	application/json

Name	Description	Mandatory	Example
Content-Length	Specifies the length of the request body. The unit is byte.	This parameter is optional for POST requests, but must be left blank for GET requests.	3495
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in Obtaining a Project ID .	No	e9993fc787d94b6c886cb aa340f9c0f4
X-Auth-Token	Specifies the user token. After the request is processed, the value of X-Subject-Token in the header is the token value.	Yes	The following is part of an example token: MIIPAgYJKoZIhvcNAQc-Co...ggg1BBIINPXsidG9rZ

The API used to obtain 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://{{endpoint}}/v3/auth/tokens
Content-Type: application/json
```

(Optional) Request Body

This part is optional. A request body is generally sent in a structured format (for example, JSON or XML), corresponding to **Content-Type** in the request header, and is used to transfer content other than the request header. If the request body contains Chinese characters, convert the Chinese characters into the UTF-8 encoding format.

The request body varies according to the APIs. Certain APIs do not require the request body, such as the GET and DELETE APIs.

For the API used to obtain a user token, the request parameters and parameter description can be obtained in the API request. The following provides an example request with a body included. Replace **username**, **domiannname**, ********* (login password), and **xxxxxxxxxxxxxxxxxxxx** (project name) with actual values. You can obtain the values from [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 Obtaining a User Token.

```
POST https://{endpoint}}/v3/auth/tokens
Content-Type: application/json
```

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

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 used to obtain 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

DDS supports token authentication.

 NOTE

The validity period of a token is 24 hours. If a token needs to be used, the system caches the token to avoid frequent calling.

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

If you use a token for authentication, you must obtain the user's token and add **X-Auth-Token** to the request message header of the service API when making an API call.

When calling an API to obtain a user token, you must set **auth.scope** in the request body to **project**.

 NOTE

Obtain the token. For details, see section "Obtaining the User Token" in the *Identity and Access Management API Reference*.

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

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

```
POST https://{{Endpoint}}/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

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 Code](#).

If status code 201 is returned for calling the API used to obtain a user token, the request is successful.

Response Header

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

Figure 3-1 shows the response header for the API used to obtain 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 for the API used to obtain a user token

```
connection → keep-alive

content-type → application/json

date → Tue, 12 Feb 2019 06:52:13 GMT

server → Web Server

strict-transport-security → max-age=31536000; includeSubdomains;

transfer-encoding → chunked

via → proxy A

x-content-type-options → nosniff

x-download-options → noopen

x-frame-options → SAMEORIGIN

x-iam-trace-id → 218d45ab-d674-4995-af3a-2d0255ba41b5

x-subject-token
→ MIIYXQYJKoZIhvcNAQcCoIIYTCCEoCAQExDTALBgIghkgBZQMEAgEwgharBgkqhkiG9w00BBwGgghacBIIWmHsidG9rZW4iOnsiZXhwaXJlc19hdCI6IiwMTktMDItMTNUMC
fj3KJs6YgKnPvNRbW2eZ5eb78SZOkqjACgklqO1wi4JIGzrpd18LGXK5bdfq4lqHCYb8P4NaY0NYejcAgz/VeFYtLWT1GSO0zxKZmlQHq82HBqHdgIZO9fuEbL5dMhdavj+33wEI
xHRCe9I87o+k9-
j+CMZSEB7bUGd5Uj6eRASXl1jipPEGA270g1FruooL6jggIFkNPQuFSOU8+uSsttVwRtnfsC+qTp22Rkd5MCqFGQ8LcuUxC3a+9CMBnOintWW7oeRUVhVpxk8pxiX1wTEboX-
RzT6MUbpvGw-oPNFYxJECKnoH3HRozv0vN--n5d6Nbxg==

x-xss-protection → 1; mode=block;
```

(Optional) Response Body

This part is optional. A response body is generally returned in a structured format (for example, JSON or XML), corresponding to **Content-Type** in the response header, and is used to transfer content other than the response header.

If status code 201 is returned for calling the API used to obtain a user token, the request is successful. The following shows part of the response body for the API to obtain a user token.

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

```

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_msg": "Parameter error",
  "error_code": "DBS.200001"
}
```

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

4 Getting Started

This section describes how to create a cluster instance by calling APIs.

NOTE

The validity period of a token obtained from IAM is 24 hours. If you want to use a token for authentication, cache it to avoid frequent IAM API calling.

Involved APIs

If you use a token for authentication, you must obtain the user's token and add **X-Auth-Token** to the request message header of the service API when making an API call.

- API for obtaining tokens from IAM
- Creating a DDS DB instance using an open API

Procedure

1. Obtain the token by following instructions in section [Authentication](#).
2. Send **POST** `https://DDS_endpoint/v3/{project_id}/instances`.
3. Add **X-Auth-Token** to the request header.
4. Specify the following parameters in the request body:

NOTE

The values of **region** and **availability_zone** are used as examples.

For details about the API used for creating DB instances, see [Creating a DB Instance](#).

```
{
  "name": "test-cluster", //DB instance name
  "datastore": {
    "type": "DDS-Community", // Database type and version
    "version": "3.4", //Database version
    "storage_engine": "wiredTiger" //Storage engine
  },
  "region": "aaa", //Region name
  "availability_zone": "bbb", //AZ name
  "vpc_id": "674e9b42-cd8d-4d25-a2e6-5abcc565b961", //VPC ID
  "subnet_id": "f1df08c5-71d1-406a-aff0-de435a51007b", //Subnet ID
  "security_group_id": "7aa51dbf-5b63-40db-9724-dad3c4828b58", //Security group ID
}
```

```
"password": "Test@123", //Administrator password
"disk_encryption_id": "d4825f1b-5e47-4ff7-8ca9-0960da1770b1", //Key ID for encrypting
disks
"mode": "Sharding", //Sharded-cluster instance type
"flavor": [
{
  "type": "mongos", //mongos node
  "num": 2, //Quantity
  "spec_code": "dds.c3.medium.4.mongos" //Node resource code
},
{
  "type": "shard", //shard node
  "num": 2, //Quantity
  "storage": "ULTRAHIGH", //Disk type
  "size": 20, //Disk size
  "spec_code": "dds.c3.medium.4.shard" //Node resource code
},
{
  "type": "config", //config node
  "num": 1, //Quantity
  "storage": "ULTRAHIGH", //Disk type
  "size": 20, //Disk size
  "spec_code": "dds.c3.large.2.config" //Node resource type
}
],
"backup_strategy": {
  "start_time": "08:15-09:15", //Backup time window
  "keep_days": "8" //Retention days of backup files
},
"ssl_option": "1"
}
```

If the following information is displayed, the request is successful:

```
{
  "id": "46125c43ca4d424a9f5c97354223c4e0in02",
  "name": "test-cluster",
  "datastore": {
    "type": "DDS-Community",
    "version": "3.4",
    "storage_engine": "wiredTiger"
  },
  "created": "2019-01-14 08:50:27",
  "status": "creating",
  "region": "aaa",
  "availability_zone": "bbb",
  "vpc_id": "674e9b42-cd8d-4d25-a2e6-5abcc565b961",
  "subnet_id": "f1df08c5-71d1-406a-aff0-de435a51007b",
  "security_group_id": "7aa51dbf-5b63-40db-9724-dad3c4828b58",
  "disk_encryption_id": "d4825f1b-5e47-4ff7-8ca9-0960da1770b1",
  "mode": "Sharding",
  "flavor": [
    {
      "type": "mongos",
      "num": 2,
      "spec_code": "dds.c3.medium.4.mongos"
    },
    {
      "type": "shard",
      "num": 2,
      "size": 20,
      "spec_code": "dds.c3.medium.4.shard"
    }
  ],
}
```

```
{
  "type": "config",
  "num": 1,
  "size": 20,
  "spec_code": "dds.c3.large.2.config"
},
"backup_strategy": {
  "start_time": "08:15-09:15",
  "keep_days": "8"
},
"enterprise_project_id": "",
"ssl_option": "1",
"job_id": "c0c606b6-470a-48c7-97a2-6c7f146014d4"
}
```

If the request fails, an error code and error information are returned. For details, see section [Error Code](#).

5 API Description

5.1 Querying the API Version

5.1.1 Querying the API Version List

Function

This API is used to query the currently supported API version list.

URI

- URI format
GET https://{Endpoint}/
- Parameter description
N/A

Requests

- Request header
GET *https://DDS endpoint/*
- Request body
N/A

Responses

- Parameter description

Table 5-1 Parameter description

Name	Type	Description
versions	Array of objects	Indicates the list of detailed API version information. For more information, see Table 5-2 .

Table 5-2 versions field data structure description

Name	Type	Description
id	String	Indicates the API version.
links	Array of objects	Indicates the API link information. For more information, see Table 5-3 . NOTE If the version is v3 , the value is [] .
status	String	Indicates the version status.
version	String	Indicates the subversion of the API version.
min_version	String	Indicates the minimum API version.
updated	String	Indicates the version update time. The format is yyyy-mm-ddThh:mm:ssZ. T is the separator between the calendar and the hourly notation of time. Z indicates the UTC.

Table 5-3 links field data structure description

Name	Type	Description
href	String	Indicates the API URL and the value is "".

Name	Type	Description
rel	String	Its value is self , indicating that URL is a local link.

- Response example

```
{
  "versions": [
    {
      "id": "v3",
      "links": [],
      "status": "CURRENT",
      "version": "",
      "min_version": "",
      "updated": "2017-02-07T17:34:02Z"
    }
  ]
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.1.2 Querying API Version Information

Function

This API is used to query the specified API version.

URI

URI format

GET `/v{version}`

Requests

- Request header
GET `https://DDS endpoint/v{version}`
- Request body
N/A

Responses

- Parameter description

Table 5-4 Parameter description

Name	Type	Description
version	Object	Indicates the list of detailed API version information. For more information, see Table 5-5 .

Table 5-5 `version` field data structure description

Name	Type	Description
id	String	Indicates the API version.
links	Array of objects	Indicates the API version link information. For more information, see Table 5-6 . NOTE If the version is v3 , the value is <code>[]</code> .
status	String	Indicates the version status. The value CURRENT indicates that the version has been released.
version	String	Indicates the subversion of the API version.
min_version	String	Indicates the minimum API version.
updated	String	Indicates the version update time. The format is yyyy-mm-ddThh:mm:ssZ. T is the separator between the calendar and the hourly notation of time. Z indicates the UTC.

Table 5-6 links field data structure description

Name	Type	Description
href	String	Indicates the API URL and the value is "".
rel	String	Its value is self , indicating that URL is a local link.

- Response example

```
{
  "version": {
    "id": "v3",
    "links": [],
    "status": "CURRENT",
    "version": "",
    "min_version": "",
    "updated": "2017-02-07T17:34:02Z"
  }
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.2 Querying Database Version Information

Function

This API is used to obtain database version information about a specified type of a DB instance.

URI

- URI format
GET /v3/{project_id}/datastores/{datastore_name}/versions
- Parameter description

Table 5-7 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.

Name	Mandatory	Description
datastore_name	Yes	Specifies the database type. DDS Community Edition is supported. The value is DDS-Community .

Requests

- Request header
GET *https://DDS endpoint/v3/{project_id}/datastores/{datastore_name}/versions*
- Request body
N/A

Responses

- Parameter description

Table 5-8 Parameter description

Name	Type	Description
versions	Array of strings	Indicates the database version. Currently, versions 3.2, 3.4, 4.0, 4.2, and 4.4 are supported.

- Response example

```
{
  "versions": [
    "3.2",
    "3.4",
    "4.0",
    "4.2",
    "4.4"
  ]
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.3 Querying All DB Instance Specifications

Function

This API is used to query all DB instance specifications in a specified region.

URI

- URI format
GET /v3/{project_id}/flavors?region={region}&engine_name={engine_name}
- Parameter description

Table 5-9 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
region	Yes	Specifies the region where the DB instance exists. Valid value: The value cannot be empty. For details about how to obtain this parameter value, see Regions and Endpoints .
engine_name	No	Specifies the database type. The value is DDS-Community .

Requests

- Request header

 NOTE

The value of **region** in the following is used as an example.

GET *https://DDS_endpoint/v3/375d8d8fad1f43039e23d3b6c0f60a19/flavors?region=aaa&engine_name=DDS-Community*

- Request body
N/A

Responses

- Parameter description

Table 5-10 Parameter description

Name	Type	Description
flavors	Array of objects	Indicates the DB instance specifications information list. For more information, see Table 5-11 .

Table 5-11 flavors field data structure description

Name	Type	Description
engine_name	String	Indicates the engine name.
type	String	Indicates the node type. DDS contains the following types of nodes: • mongos • shard • config • replica
vcpus	String	Indicates the number of vCPUs.
ram	String	Indicates the memory size in gigabyte (GB).
spec_code	String	Indicates the resource specification code. Example: dds.c3.xlarge.2.shard NOTE • dds: indicates the DDS service. • c3.xlarge.2: indicates the performance specification, which is high memory. • shard: indicates the node type. • When querying the specifications, check whether the specifications are of the same series. The specification series includes general-purpose (s6), enhanced (c3), and enhanced II (c6). Example: • dds.mongodb.s6.large.4.mongos and dds.mongodb.s6.large.4.config have the same specifications. • dds.mongodb.s6.large.4.mongos and dds.mongodb.c3.large.4.config are not of the same specifications.
az_status	Object	Indicates the status of specifications in an AZ. Its value can be any of the following: • normal: indicates that the specifications are on sale. • unsupported: indicates that the DB instance specifications are not supported. • sellout: indicates the specifications are sold out.

 NOTE

In the example response, **az1**, **az2**, and **az3** in the **az_status** field are example values.

- Response example

```
{
  "flavors": [
    {
      "engine_name": "DDS-Community",
      "type": "mongos",
      "vcpus": "1",
      "ram": "4",
      "spec_code": "dds.c3.medium.4.mongos",
      "az_status": {
        "az1": "normal",
        "az2": "normal",
        "az3": "normal"
      }
    },
    {
      "engine_name": "DDS-Community",
      "type": "shard",
      "vcpus": "4",
      "ram": "8",
      "spec_code": "dds.c3.xlarge.2.shard",
      "az_status": {
        "az1": "normal",
        "az2": "normal",
        "az3": "normal"
      }
    },
    {
      "engine_name": "DDS-Community",
      "type": "config",
      "vcpus": "2",
      "ram": "4",
      "spec_code": "dds.c3.large.2.config",
      "az_status": {
        "az1": "normal",
        "az2": "normal",
        "az3": "normal"
      }
    },
    {
      "engine_name": "DDS-Community",
      "type": "replica",
      "vcpus": "1",
      "ram": "4",
      "spec_code": "dds.c3.medium.4.repset",
      "az_status": {
        "az1": "normal",
        "az2": "normal",
        "az3": "normal"
      }
    }
  ]
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.4 Querying the Database Disk Type

API Description

This API is used to query the database disk type in the current region.

URI

- URI format
GET https://{Endpoint}/v3/{project_id}/storage-type?
engine_name={engine_name}

Requests

Request parameters

Table 5-12 Parameter description

Name	Type	IN	Man dator y	Description
x-auth-token	string	head er	Yes	User token
project_id	string	path	Yes	Project ID of a tenant in a region.
engine_name	string	query	No	Specifies the database type. The value is DDS-Community . To obtain this value, see Querying Database Version Information .

Responses

- Parameter description

Table 5-13 Parameter description

Name	Type	Mandatory	Description
storage_type	Array of objects	Yes	Indicates the database disk information list. For more information, see Table 5-14 .
dss_pool_info	Array of objects	Yes	Indicates the dss_pool specifications information list. For more information, see Table 5-15 . NOTE Only Dedicated Cloud (DeC) users are supported.

Table 5-14 storage_type field data structure description

Name	Type	Mandatory	Description
name	String	Yes	Indicates the storage type. Its value can be: ULTRAHIGH : indicates the SSD type. EXTREMEHIGH indicates ESSD.
az_status	Map<String,String>	Yes	key indicates the AZ ID, and value indicates the specification status in the AZ. Its value can be any of the following: normal: indicates that the specifications are on sale. unsupported: The disk type is not supported. sellout: indicates the specifications are sold out.

Table 5-15 dss_pool_info field data structure description

Name	Type	Mandatory	Description
az_name	String	Yes	Indicates the name of the AZ where the dss_pool is located.

Name	Type	Mandatory	Description
free_capacity_gb	String	Yes	Indicates the available capacity of DSS. Unit: GB
dss_pool_volume_type	String	Yes	Indicates the disk type of DSS storage pool.
dss_pool_id	String	Yes	Indicates the DSS pool ID.
dss_pool_status	String	Yes	Indicates the dss_pool status. Its value can be any of the following: • available • deploying • enlarging

 NOTE

In the example response, **az1**, **az2**, and **az3** in the **az_status** field are example values.

- Response example

```
{
  "storage_type": [
    {
      "name": "ULTRAHIGH",
      "az_status": {
        "az1": "normal",
        "az2": "normal",
        "az3": "unsupported"
      }
    }
  ],
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5 DB Instance Management

5.5.1 Creating a DB Instance

Function

This API is used to create cluster and replica set instances.

URI

- URI format
POST /v3/{project_id}/instances
- Parameter description

Table 5-16 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.

Requests

- Parameter description

Table 5-17 Parameter description

Name	Mandatory	Type	Description
name	Yes	String	Specifies the DB instance name. The DB instance name of the same DB engine is unique for the same tenant. The value must be 4 to 64 characters in length and start with a letter (from A to Z or from a to z). It is case-sensitive and can contain only letters, digits (from 0 to 9), hyphens (-), and underscores (_).

Name	Mandatory	Type	Description
datastore	Yes	Object	Specifies the database information. For more information, see Table 5-18 .
region	Yes	String	Specifies the region ID. The value cannot be empty. For details about how to obtain this parameter value, see Regions and Endpoints .
availability_zone	Yes	String	Specifies the AZ ID. For details, see az_status returned in Querying All DB Instance Specifications . A user can select multiple AZs to create a cross-AZ cluster. The value cannot be empty. For details about how to obtain this parameter value, see Regions and Endpoints .

Name	Mandatory	Type	Description
vpc_id	Yes	String	Specifies the VPC ID. To obtain this parameter value, use either of the following methods: - Method 1: Log in to VPC console and view the VPC ID on the VPC details page. - Method 2: See the "Querying VPCs" section in the <i>Virtual Private Cloud API Reference</i>.
subnet_id	Yes	String	Specifies the network ID of the subnet. To obtain this parameter value, use either of the following methods: - Method 1: Log in to VPC console and click the target subnet on the Subnets page. You can view the network ID on the displayed page. - Method 2: See the "Querying Subnets" section in the <i>Virtual Private Cloud API Reference</i>.

Name	Mandatory	Type	Description
security_group_id	Yes	String	Specifies the security group ID. To obtain the security group ID, perform either of the following methods: - Method 1: Log in to VPC console. Choose Access Control > Security Groups in the navigation pane on the left. On the displayed page, click the target security group. You can view the security group ID on the displayed page. - Method 2: See the "Querying Security Groups" section in the <i>Virtual Private Cloud API Reference</i>.

Name	Mandatory	Type	Description
password	No	String	Specifies the database password. The value must be 8 to 32 characters in length and contain uppercase letters (A to Z), lowercase letters (a to z), digits (0 to 9), and special characters, such as ~!@#%^*-_ = +? You are advised to enter a strong password to improve security, preventing security risks such as brute force cracking.
disk_encryption_id	No	String	Specifies the key ID used for disk encryption. The string must comply with UUID regular expression rules. If this parameter is not transferred, disk encryption is not performed.
mode	Yes	String	Specifies the instance type. Cluster and replica set instances are supported. Valid value: • Sharding • ReplicaSet

Name	Mandatory	Type	Description
flavor	Yes	Array of objects	Specifies the instance specifications. For more information, see Table 5-19 . For details about how to obtain the value, see the response values of flavor in Querying All DB Instance Specifications .
backup_strategy	No	Object	Specifies the advanced backup policy. For more information, see Table 5-20 .
ssl_option	No	String	Specifies whether to enable or disable SSL. Valid value: - The value 0 indicates that SSL is disabled by default. - The value 1 indicates that SSL is enabled by default. - If this parameter is not transferred, SSL is enabled by default.

Table 5-18 datastore field data structure description

Name	Mandatory	Type	Description
type	Yes	String	Specifies the database type. DDS Community Edition is supported. The value is DDS-Community .
version	Yes	String	Indicates the database version. Versions 3.2, 3.4, 4.0, 4.2 and 4.4 are supported. The value is 3.2, 3.4, 4.0, 4.2, or 4.4 .
storage_engine	Yes	String	Specifies the storage engine. Currently, DDS supports the WiredTiger storage engine. The value is wiredTiger .

Table 5-19 flavor field data structure description

Name	Mandatory	Type	Description
type	Yes	String	Specifies the node type. Valid value: - For a cluster instance, the value can be mongos, shard, or config. - For a replica set instance, the value is replica.

Name	Mandatory	Type	Description
num	Yes	Integer	Specifies node quantity. Valid value: • mongos: The value ranges from 2 to 32. • mongos: The value ranges from 2 to 32. • config: The value is 1. • replica: The value is 1.
storage	This parameter is optional for all nodes except mongos. This parameter is invalid for the mongos nodes.	String	Specifies the disk type. Valid value: ULTRAHIGH, which indicates the type SSD. This parameter is valid for the shard and config nodes of a cluster instance and for replica set instances. This parameter is invalid for mongos nodes. Therefore, you do not need to specify the storage space for mongos nodes.
size	This parameter is mandatory for all nodes except mongos. This parameter is invalid for the mongos nodes.	Integer	Specifies the disk size. The value must be a multiple of 10. The unit is GB. • For a cluster instance, the storage space of a shard node can be 10 to 2000 GB, and the config storage space is 20 GB. This parameter is invalid for mongos nodes. Therefore, you do not need to specify the storage space for mongos nodes. • For a replica set instance, the value ranges from 10 to 2000.

Name	Mandatory	Type	Description
spec_code	Yes	String	Specifies the resource specification code. For details about how to obtain the value, see the response values of spec_code in Querying All DB Instance Specifications. In a cluster instance, multiple specifications need to be specified. All specifications must be of the same series, that is, general-purpose (s6), enhanced (c3), or enhanced II (c6). Example: • dds.mongodb.s6.large.4.mongos and dds.mongodb.s6.large.4.config have the same specifications. • dds.mongodb.s6.large.4.mongos and dds.mongodb.c3.large.4.config are not of the same specifications.

Table 5-20 backup_strategy field data structure description

Name	Mandatory	Type	Description
start_time	Yes	String	Specifies the backup time window. Automated backups will be triggered during the backup time window. The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format. • The HH value must be 1 greater than the hh value. • The values of mm and MM must be the same and must be set to any of the following: 00, 15, 30, or 45. Example value: • 08:15-09:15 • 23:00-00:00
keep_days	No	String	Specifies the number of days to retain the generated backup files. The value range is from 0 to 732. • If this parameter is set to 0, the automated backup policy is not set. • If this parameter is not transferred, the automated backup policy is enabled by default. Backup files are stored for seven days by default.

 NOTE

The values of **region** and **availability_zone** are used as examples.

- Request header
POST https://DDS.endpoint/v3/{project_id}/instances.
- Example request
Create a cluster instance.

```
{
  "name": "test-cluster-01",
  "datastore": {
    "type": "DDS-Community",
    "version": "3.4",
    "storage_engine": "wiredTiger"
  },
  "region": "aaa",
  "availability_zone": "bbb",
  "vpc_id": "674e9b42-cd8d-4d25-a2e6-5abcc565b961",
  "subnet_id": "f1df08c5-71d1-406a-aff0-de435a51007b",
  "security_group_id": "7aa51dbf-5b63-40db-9724-dad3c4828b58",
  "password": "Test@123",
  "mode": "Sharding",
  "flavor": [
    {
      "type": "mongos",
      "num": 2,
      "spec_code": "dds.c3.medium.4.mongos"
    },
    {
      "type": "shard",
      "num": 2,
      "storage": "ULTRAHIGH",
      "size": 20,
      "spec_code": "dds.c3.medium.4.shard"
    },
    {
      "type": "config",
      "num": 1,
      "storage": "ULTRAHIGH",
      "size": 20,
      "spec_code": "dds.c3.large.2.config"
    }
  ],
  "backup_strategy": {
    "start_time": "08:15-09:15",
    "keep_days": "8"
  },
  "ssl_option": "1"
}
```

Create a replica set instance.

```
{
  "name": "test-replicaset",
  "datastore": {
    "type": "DDS-Community",
    "version": "3.4",
    "storage_engine": "wiredTiger"
  },
  "region": "aaa",
  "availability_zone": "bbb",
  "vpc_id": "674e9b42-cd8d-4d25-a2e6-5abcc565b961",
  "subnet_id": "f1df08c5-71d1-406a-aff0-de435a51007b",
  "security_group_id": "7aa51dbf-5b63-40db-9724-dad3c4828b58",
  "password": "Test@123",
  "mode": "ReplicaSet",
  "flavor": [
    {
      "type": "replica",
      "num": 1,
      "storage": "ULTRAHIGH",

```

```
    "size": 30,
    "spec_code": "dds.s2.medium.4.shard"
  },
  "backup_strategy": {
    "start_time": "08:15-09:15",
    "keep_days": "8"
  },
  "ssl_option": "1"
}
```

Responses

- Parameter description

Table 5-21 Parameter description

Name	Type	Description
id	String	Indicates the DB instance ID.
name	String	Indicates the instance name, which is the same as the request parameter.
datastore	Object	Indicates the database information, which is the same as the request parameter. For more information, see Table 5-18 .
created	String	Indicates the creation time in the following format: yyyy-mm-dd hh:mm:ss.
status	String	Indicates the DB instance status. The value is creating .
region	String	Indicates the region ID, which is the same as the request parameter.
availability_zone	String	Indicates the AZ ID, which is the same as the request parameter.
vpc_id	String	Indicates the VPC ID, which is the same as the request parameter.

Name	Type	Description
subnet_id	String	Indicates the network ID of the subnet, which is the same as the request parameter.
security_group_id	String	Indicates the security group ID, which is the same as the request parameter.
disk_encryption_id	String	Indicates the ID of the disk encryption key, which is the same as the request parameter.
mode	String	Indicates the instance type, which is the same as the request parameter.
flavor	Array of objects	Indicates the instance specification, which is the same as the request parameter. For more information, see Table 5-19 .
backup_strategy	Object	Indicates the advanced backup policy, which is the same as the request parameter. For more information, see Table 5-20 .
ssl_option	String	Indicates whether to enable SSL, which functions the same as the request parameter.
job_id	String	Indicates the ID of the workflow for creating a DB instance.

 NOTE

The values of **region** and **availability_zone** are used as examples.

- **Response example**

Cluster instance:

```
{
  "id": "39b6a1a278844ac48119d86512e0000bin02",
  "name": "test-cluster-01",
  "datastore": {
    "type": "DDS-Community",
```

```
    "version": "3.4",
    "storage_engine": "wiredTiger"
  },
  "created": "2019-01-16 09:34:36",
  "status": "creating",
  "region": "aaa",
  "availability_zone": "bbb",
  "vpc_id": "674e9b42-cd8d-4d25-a2e6-5abcc565b961",
  "subnet_id": "f1df08c5-71d1-406a-aff0-de435a51007b",
  "security_group_id": "7aa51dbf-5b63-40db-9724-dad3c4828b58",
  "disk_encryption_id": "",
  "mode": "Sharding",
  "flavor": [
    {
      "type": "mongos",
      "num": 2,
      "spec_code": "dds.c3.medium.4.mongos"
    },
    {
      "type": "shard",
      "num": 2,
      "spec_code": "dds.c3.medium.4.shard",
      "size": 20
    },
    {
      "type": "config",
      "num": 1,
      "spec_code": "dds.c3.large.2.config",
      "size": 20
    }
  ],
  "backup_strategy": {
    "start_time": "08:15-09:15",
    "keep_days": "8"
  },
  "ssl_option": "1",
  "job_id": "c010abd0-48cf-4fa8-8cbc-090f093eaa2f"
}
```

Replica set instance:

```
{
  "id": "46dfadfd2b674585a430217f23606cd7in02",
  "name": "test-replicaset",
  "datastore": {
    "type": "DDS-Community",
    "version": "3.4",
    "storage_engine": "wiredTiger"
  },
  "created": "2019-01-16 09:33:08",
  "status": "creating",
  "region": "aaa",
  "availability_zone": "bbb",
  "vpc_id": "674e9b42-cd8d-4d25-a2e6-5abcc565b961",
  "subnet_id": "f1df08c5-71d1-406a-aff0-de435a51007b",
  "security_group_id": "7aa51dbf-5b63-40db-9724-dad3c4828b58",
  "disk_encryption_id": "",
  "mode": "ReplicaSet",
  "flavor": [
    {
      "type": "replica",
      "num": 1,
      "spec_code": "dds.s2.medium.4.shard",

```

```
        "size": 30
      },
    ],
    "backup_strategy": {
      "start_time": "08:15-09:15",
      "keep_days": "7"
    },
    "ssl_option": "1",
    "job_id": "2408417d-fd4b-40ae-bec6-e09ce594eb5f"
  }
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5.2 Restarting a DB Instance

Function

This API is used to restart a DB instance.

NOTICE

The DDS DB instance will be unavailable during the restart process. Exercise caution when performing this operation.

Restrictions

If the instance status is not normal, the instance cannot be restarted.

URI

- URI format
POST /v3/{project_id}/instances/{instance_id}/restart
- Parameter description

Table 5-22 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the DB instance ID.

Requests

- Parameter description

Table 5-23 Parameter description

Name	Mandatory	Type	Description
target_type	No	String	Specifies the type of the object to restart. - This parameter is mandatory when you restart one or more nodes of a cluster instance. - Set the value to mongos if mongos nodes are restarted. - Set the value to shard if shard nodes are restarted. - Set the value to config if config nodes are restarted. - This parameter is not transferred when the DB instance is restarted.
target_id	Yes	String	Specifies the ID of the object to restart. - In a cluster instance, the value is the ID of the node to restart. - When you restart the entire DB instance, the value is the DB instance ID.

- Request header
POST *https://DDS.endpoint/v3/{project_id}/instances/{instance_id}/restart*

- Example request

Restart the DB instance.

```
{
  "target_id":"9136fd2a9fcd405ea4674276ce36dae8in02"
}
```

Restart shards.

```
{
  "target_type":"shard",
  "target_id":"84e7c96b82aa4fedb3b00f98edd71ba4gr02"
}
```

Restart configs.

```
{
  "target_type":"config",
  "target_id":"06439baa35c146d3a8965af59d370908gr02"
}
```

Restart mongos.

```
{
  "target_type":"mongos",
  "target_id":"bd4dccbd53ae48d5bd3046bebf715079no02"
}
```

Responses

- Parameter description

Table 5-24 Parameter description

Name	Type	Description
job_id	String	Indicates the workflow ID.

- Response example

```
{
  "job_id": "3711e2ad-5787-49bc-a47f-3f0b066af9f5"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5.3 Deleting a DB Instance

Function

This API is used to delete a DB instance.

URI

- URI format
DELETE /v3/{project_id}/instances/{instance_id}
- Parameter description

Table 5-25 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the DB instance ID.

Requests

- Request header
DELETE *https://DDS endpoint/v3/{project_id}/instances/{instance_id}*
- Request body
N/A

Responses

- Parameter description

Table 5-26 Parameter description

Name	Type	Description
job_id	String	Indicates the workflow ID.

- Response example

```
{
  "job_id": "252f11f1-2912-4c06-be55-1999bde659c5"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5.4 Querying DB Instances

Function

This API is used to query DB instances based on specified conditions.

URI

- URI format

```
GET /v3/{project_id}/instances?
id={id}&name={name}&mode={mode}&datastore_type={datastore_type}&vpc_
id={vpc_id}&subnet_id={subnet_id}&offset={offset}&limit={limit}
```

- Parameter description

Table 5-27 Parameter description

Name	Man dato ry	Type	Description
project_id	Yes	String	Specifies the project ID of a tenant in a region.
id	No	String	Specifies the DB instance ID.

Name	Mandatory	Type	Description
name	No	String	Specifies the DB instance name. If you use the asterisk (*) at the beginning of the name, fuzzy search results are returned. Otherwise, the exact results are returned. NOTE The asterisk (*) is a reserved character in the system and cannot be used alone.
mode	No	String	Specifies the instance type. • Sharding indicates the cluster instance. • ReplicaSet indicate the replica set instance.
datastore_type	No	String	Specifies the database type. The value is DDS-Community.
vpc_id	No	String	Specifies the VPC ID. To obtain this parameter value, use either of the following methods: • Method 1: Log in to VPC console and view the VPC ID on the VPC details page. • Method 2: See the "Querying VPCs" section in the <i>Virtual Private Cloud API Reference</i>.
subnet_id	No	String	Specifies the network ID of the subnet. To obtain this parameter value, use either of the following methods: • Method 1: Log in to VPC console and click the target subnet on the Subnets page. You can view the network ID on the displayed page. • Method 2: See the "Querying Subnets" section in the <i>Virtual Private Cloud API Reference</i>.
offset	No	Integer	Specifies the index position. The query starts from the next instance creation time indexed by this parameter under a specified project. If offset is set to N, the resource query starts from the N+1 piece of data The value must be greater than or equal to 0. If this parameter is not transferred, offset is set to 0 by default, indicating that the query starts from the latest created DB instance.

Name	Mandatory	Type	Description
limit	No	Integer	Specifies the maximum allowed number of DB instances. The value ranges from 1 to 100. If this parameter is not transferred, the first 100 DB instances are queried by default.

Requests

- Request header

Query all DB instances.

GET <https://DDS.endpoint/v3/0483b6b16e954cb88930a360d2c4e663/instances>

Query DB instances based on specified conditions.

GET https://DDS.endpoint/v3/0483b6b16e954cb88930a360d2c4e663/instances?offset=0&limit=10&id=ed7cc6166ec24360a5ed5c5c9c2ed726in02&name=hy&mode=ReplicaSet&datastore_type=DDS-Community&vpc_id=19e5d45d-70fd-4a91-87e9-b27e71c9891f&subnet_id=bd51fb45-2dcb-4296-8783-8623bfe89bb7

- Request body

N/A

Responses

- Parameter description

Table 5-28 Parameter description

Name	Type	Description
instances	Array of objects	Indicates the DB instance information. For more information, see Table 5-29 .
total_count	Integer	Indicates the total number of queried records.

Table 5-29 instances field data structure description

Name	Type	Description
id	String	Indicates the DB instance ID.
name	String	Indicates the DB instance name.

Name	Type	Description
status	String	Indicates the DB instance status. Valid value: • normal: indicates that the instance is running properly. • abnormal: indicates that the instance is abnormal. • creating: indicates that the instance is being created. • data_disk_full: indicates that the instance disk is full. • createfail: indicates that the instance failed to be created. • enlargefail: indicates that nodes failed to be added to the instance.
port	Integer	Indicates the database port number. The port range is from 2100 to 9500.
mode	String	Indicates the instance type, which is the same as the request parameter.
region	String	Indicates the region where the DB instance is deployed.
datastore	Object	Indicates the database information. For more information, see Table 5-30 .
engine	String	Indicates the storage engine. The value is wiredTiger .
created	String	Indicates the DB instance creation time.
updated	String	Indicates the time when a DB instance is updated.
db_user_name	String	Indicates the default username. The value is rwuser .
ssl	Integer	Indicates that SSL is enabled or not. • 1: indicate that SSL is enabled. • 0: indicate that SSL is disabled.
vpc_id	String	Indicates the VPC ID.
subnet_id	String	Indicates the network ID of the subnet.

Name	Type	Description
security_group_id	String	Indicates the security group ID.
backup_strategy	Object	Indicates the backup policy. For more information, see Table 5-31 .
pay_mode	String	0 indicates the pay-per-use billing mode.
maintenance_window	String	Indicates the maintenance time window.
groups	Array of objects	Indicates group information. For more information, see Table 5-32 .
time_zone	String	Indicates the time zone.
actions	Array of strings	Indicates the operation that is executed on the DB instance.

Table 5-30 datastore field data structure description

Name	Type	Description
type	String	Indicates the DB engine.
version	String	Indicates the database version.

Table 5-31 backup_strategy field data structure description

Name	Type	Description
start_time	String	Indicates the backup time window. Automated backups will be triggered during the backup time window. The current time is the UTC time.
keep_days	Integer	Indicates the number of days to retain the generated backup files. The value range is from 0 to 732.

Table 5-32 groups field data structure description

Name	Type	Description
type	String	Indicates the node type. Valid value: • shard • config • mongos • replica
id	String	Indicates the group ID. This parameter is valid only when the node type is shard or config.
name	String	Indicates the group name. This parameter is valid only when the node type is shard or config.
status	String	Indicates the group status. This parameter is valid only when the node type is shard or config.
volume	Object	Indicates the volume information. For more information, see Table 5-33 . This parameter is valid only when the node type is shard, config, or replica.
nodes	Array of objects	Indicates node information. For more information, see Table 5-34 .

Table 5-33 volume field data structure description

Name	Type	Description
size	String	Indicates the disk size. Unit: GB
used	String	Indicates the disk usage. Unit: GB

Table 5-34 nodes field data structure description

Name	Type	Description
id	String	Indicates the node ID.
name	String	Indicates the node name.
status	String	Indicates the node status.

Name	Type	Description
role	String	Indicates the node role. Valid value: • master: This value is returned for the mongos node. • Primary: This value is returned for the primary shard and config nodes, and the primary node of a replica set. • Secondary: This value is returned for the secondary shard and config nodes, and the secondary node of a replica set. • Hidden: This value is returned for the hidden shard and config nodes, and the hidden node of a replica set. • unknown. This value is returned when the node is abnormal.
private_ip	String	Indicates the private IP address of a node. This parameter is valid only for mongos nodes and replica set instances. The value exists after the ECS is created successfully. Otherwise, the value is "".
public_ip	String	Indicates the EIP that has been bound. This parameter is valid only for mongos nodes of cluster instances and the primary and secondary nodes of replica set instances.
spec_code	String	Indicates the resource specification code. For details about the instance specifications, see the value of the flavors.spec_code parameter in Querying All DB Instance Specifications .
availability_zone	String	Indicates the AZ.

 NOTE

The values of **region** and **availability_zone** are used as examples.

- Response example
Query all DB instances.

```
{  
  "instances": [  

```

```
{
  "id": "8436a91546294036b75931e879882200in02",
  "name": "dds-efa6",
  "status": "normal",
  "port": "8635",
  "mode": "ReplicaSet",
  "region": "aaa",
  "datastore": {
    "type": "DDS-Community",
    "version": "3.4"
  },
  "engine": "wiredTiger",
  "created": "2019-01-17T07:05:52",
  "updated": "2019-01-17T07:05:47",
  "db_user_name": "rwuser",
  "ssl": "1",
  "vpc_id": "674e9b42-cd8d-4d25-a2e6-5abcc565b961",
  "subnet_id": "f1df08c5-71d1-406a-aff0-de435a51007b",
  "security_group_id": "7aa51dbf-5b63-40db-9724-dad3c4828b58",
  "backup_strategy": {
    "start_time": "16:00-17:00",
    "keep_days": 7
  },
  "pay_mode": "0",
  "maintenance_window": "02:00-06:00",
  "groups": [
    {
      "type": "replica",
      "volume": {
        "size": "10",
        "used": "0.33"
      },
      "nodes": [
        {
          "id": "233eaac9c6f245c0bb9c2d21eea12d1bno02",
          "name": "dds-efa6_replica_node_2",
          "status": "normal",
          "role": "Primary",
          "private_ip": "192.168.0.174",
          "public_ip": "",
          "spec_code": "dds.s2.medium.4.shard",
          "availability_zone": "bbb"
        },
        {
          "id": "d57d76d6320a4a7b86db82c317550c4ano02",
          "name": "dds-efa6_replica_node_1",
          "status": "normal",
          "role": "Hidden",
          "private_ip": "192.168.0.39",
          "public_ip": "",
          "spec_code": "dds.s2.medium.4.shard",
          "availability_zone": "bbb"
        },
        {
          "id": "f46b0a1cf4d9400e9fd7af17f8742d37no02",
          "name": "dds-efa6_replica_node_3",
          "status": "normal",
          "role": "Secondary",
          "private_ip": "192.168.0.176",
          "public_ip": "",
          "spec_code": "dds.s2.medium.4.shard",
          "availability_zone": "bbb"
        }
      ]
    }
  ]
}
```

```
    }
  ]
}
},
"time_zone": "",
"actions": [
  "CREATE"
]
},
{
  "id": "9136fd2a9fcd405ea4674276ce36dae8in02",
  "name": "dds-32f4",
  "status": "normal",
  "port": "8635",
  "mode": "Sharding",
  "region": "aaa",
  "datastore": {
    "type": "DDS-Community",
    "version": "3.4"
  },
  "engine": "wiredTiger",
  "created": "2019-01-17T07:04:37",
  "updated": "2019-01-17T07:04:31",
  "db_user_name": "rwuser",
  "ssl": "1",
  "vpc_id": "674e9b42-cd8d-4d25-a2e6-5abcc565b961",
  "subnet_id": "f1df08c5-71d1-406a-aff0-de435a51007b",
  "security_group_id": "7aa51dbf-5b63-40db-9724-dad3c4828b58",
  "backup_strategy": {
    "start_time": "19:00-20:00",
    "keep_days": 7
  },
  "pay_mode": "0",
  "maintenance_window": "02:00-06:00",
  "groups": [
    {
      "type": "mongos",
      "nodes": [
        {
          "id": "a742c13a284949adad177672e8a0f01cno02",
          "name": "dds-32f4_mongos_node_1",
          "status": "normal",
          "role": "master",
          "private_ip": "192.168.0.56",
          "public_ip": "",
          "spec_code": "dds.c3.medium.4.mongos",
          "availability_zone": "bbb"
        },
        {
          "id": "d4f66666b1d64ab28719da0526341c7eno02",
          "name": "dds-32f4_mongos_node_2",
          "status": "normal",
          "role": "master",
          "private_ip": "192.168.0.185",
          "public_ip": "",
          "spec_code": "dds.c3.medium.4.mongos",
          "availability_zone": "bbb"
        }
      ]
    },
    {
      "type": "shard",
```

```
"id": "d1b92d2cbd544e85ac7ce6a7f33ba205gr02",
"name": "shard_2",
"status": "normal",
"volume": {
  "size": "10",
  "used": "0.33"
},
"nodes": [
  {
    "id": "0e9abaebe5974b63a5b221de6ee34cfeno02",
    "name": "dds-32f4_shard_2_node_3",
    "status": "normal",
    "role": "Primary",
    "spec_code": "dds.c3.medium.4.shard",
    "availability_zone": "bbb"
  },
  {
    "id": "1d7f4c5476c04cc187f920925c2b601fno02",
    "name": "dds-32f4_shard_2_node_2",
    "status": "normal",
    "role": "Hidden",
    "spec_code": "dds.c3.medium.4.shard",
    "availability_zone": "bbb"
  },
  {
    "id": "3dd2cce03da54fc08f10651cbfea778dno02",
    "name": "dds-32f4_shard_2_node_1",
    "status": "normal",
    "role": "Secondary",
    "spec_code": "dds.c3.medium.4.shard",
    "availability_zone": "bbb"
  }
]
},
{
  "type": "shard",
  "id": "06439baa35c146d3a8965af59d370908gr02",
  "name": "shard_1",
  "status": "normal",
  "volume": {
    "size": "10",
    "used": "0.33"
  },
  "nodes": [
    {
      "id": "0f6744d7e29f42ff80fc1a36cc145042no02",
      "name": "dds-32f4_shard_1_node_1",
      "status": "normal",
      "role": "Primary",
      "spec_code": "dds.c3.medium.4.shard",
      "availability_zone": "bbb"
    },
    {
      "id": "3abcb399113b4512bd5a906da54e8753no02",
      "name": "dds-32f4_shard_1_node_3",
      "status": "normal",
      "role": "Hidden",
      "spec_code": "dds.c3.medium.4.shard",
      "availability_zone": "bbb"
    },
    {
      "id": "c149f70563494501b5706cad225a8ebdno02",
```

```
        "name": "dds-32f4_shard_1_node_2",
        "status": "normal",
        "role": "Secondary",
        "spec_code": "dds.c3.medium.4.shard",
        "availability_zone": "bbb"
      }
    ]
  },
  {
    "type": "config",
    "id": "84e7c96b82aa4fedb3b00f98edd71ba4gr02",
    "name": "config",
    "status": "normal",
    "volume": {
      "size": "20",
      "used": "0.33"
    },
    "nodes": [
      {
        "id": "7422f7331b714ac39aa647a1ec968d33no02",
        "name": "dds-32f4_config_node_2",
        "status": "normal",
        "role": "Primary",
        "spec_code": "dds.c3.large.2.config",
        "availability_zone": "bbb"
      },
      {
        "id": "9e3b343151044eda91ddb8a42ae5cbefno02",
        "name": "dds-32f4_config_node_3",
        "status": "normal",
        "role": "Hidden",
        "spec_code": "dds.c3.large.2.config",
        "availability_zone": "bbb"
      },
      {
        "id": "c0053ca460ac4889841ffb14a886ec54no02",
        "name": "dds-32f4_config_node_1",
        "status": "normal",
        "role": "Secondary",
        "spec_code": "dds.c3.large.2.config",
        "availability_zone": "bbb"
      }
    ]
  }
],
"time_zone": "",
"actions": [
  "CREATE"
]
}
],
"total_count": 2
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5.5 Scaling Up Storage Space

Function

This API is used to scale up the storage space of a DB instance.

URI

- URI format
POST /v3/{project_id}/instances/{instance_id}/enlarge-volume
- Parameter description

Table 5-35 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the DB instance ID.

Requests

- Parameter description

Table 5-36 Parameter description

Name	Mandatory	Type	Description
volume	Yes	Object	Specifies detailed information about the volume request. For more information, see Table 5-37 .

Table 5-37 volume field data structure description

Name	Mandatory	Type	Description
group_id	No	String	Specifies the role ID. • For a cluster instance, this parameter is set to the ID of the shard group. • This parameter is not transferred for replica set instances.

Name	Mandator y	Type	Description
size	Yes	Integer	Specifies the requested disk capacity. The value must be an integer multiple of 10 and greater than the current storage space. • In a cluster instance, this parameter indicates the storage space of shard nodes. The value range is from 10 GB to 2,000 GB. • In a replica set instance, this parameter indicates the disk capacity of the DB instance to be expanded. The value range is from 10 GB to 2,000 GB.

- Request header
POST *https://DDS endpoint/v3/{project_id}/instances/{instance_id}/enlarge-volume*
- Example request

Clusters:

```
{
  "volume":
    {
      "group_id": "1b0c008adbcb495c81a3d5762a02a2abgr02",
      "size": 20
    }
}
```

Replica sets:

```
{
  "volume":
    {
      "size": 20
    }
}
```

Responses

- Parameter description

Table 5-38 Parameter description

Name	Type	Description
job_id	String	Indicates the task ID.

- Response example

```
{
  "job_id": "3711e2ad-5787-49bc-a47f-3f0b066af9f5"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5.6 Adding Nodes for a Cluster Instance

Function

This API is used to add nodes for a specified cluster instance.

Restrictions

- Only the mongos and shard nodes can be added.
- The specifications of the new node must be the same as those of the existing nodes in the instance.

The specification series includes general-purpose (s6), enhanced (c3), and enhanced II (c6).

Example:

- dds.mongodb.s6.large.4.mongos and dds.mongodb.s6.medium.4.mongos have the same specifications.
- dds.mongodb.s6.large.4.mongos and dds.mongodb.c3.large.4.mongos are not of the same specifications.

URI

- URI format
POST /v3/{project_id}/instances/{instance_id}/enlarge
- Parameter description

Table 5-39 Parameter description

Name	Mandator y	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the DB instance ID.

Requests

- Parameter description

Table 5-40 Parameter description

Name	Mandatory	Type	Description
type	Yes	String	Specifies the object to be scaled. - Set the value to mongos if mongos nodes are to be added. - Set the value to shard if shard nodes are to be added.
spec_code	Yes	String	Specifies the resource specification code. For details about how to obtain the resource specification code, see the flavors.spec_code parameter in Querying All DB Instance Specifications .
num	Yes	Integer	Specifies the number of mongos or shard nodes to be added. A Community Edition cluster instance supports a maximum of 32 mongos nodes and 32 shard nodes.
volume	No	Object	Specifies the volume information. For more information, see Table 5-41 . - This parameter is not transferred when the mongos nodes are to be added. - This parameter is mandatory when the shard nodes are to be added. The disk information of all shards to be added needs to be specified. NOTE If multiple shards are added at a time, the shards must have the same specifications and disk capacity.

Table 5-41 volume field data structure description

Name	Mandatory	Type	Description
size	Yes	Integer	Specifies the disk capacity of all new shards. The value range is from 10 GB to 2000 GB.

- Request header
POST *https://DDS endpoint/v3/{project_id}/instances/{instance_id}/enlarge*

- Example request

Number of mongos nodes to be added:

```
{
  "type": "mongos",
  "spec_code": "dds.c3.medium.4.mongos",
  "num": 1
}
```

Number of shard nodes to be added:

```
{
  "type": "shard",
  "spec_code": "dds.c3.medium.4.shard",
  "num": 1,
  "volume": {
    "size": 330
  }
}
```

Responses

- Parameter description

Table 5-42 Parameter description

Name	Type	Description
job_id	String	Indicates the task ID.

- Response example

```
{
  "job_id": "4008c8914b624785a02ab7966d4d"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5.7 Modifying DB Instance Specifications

Function

This API is used to modify DB instance specifications.

NOTICE

Services will be interrupted for 5 to 10 minutes when you modify DB instance specifications. Exercise caution when performing this operation.

Constraints

- This API supports only Community Edition DB instances.
- The new specifications cannot be the same as the original specifications.
- Specifications can be modified only when the DB instance status is normal.
- This API can only be used to modify specifications within the same series.
The specification series includes general-purpose (s6), enhanced (c3), and enhanced II (c6).

Example:

- dds.mongodb.s6.large.4.mongos and dds.mongodb.s6.medium.4.mongos have the same specifications.
- dds.mongodb.s6.large.4.mongos and dds.mongodb.c3.large.4.mongos are not of the same specifications.

URI

- URI format
POST /v3/{project_id}/instances/{instance_id}/resize
- Parameter description

Table 5-43 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the DB instance ID.

Requests

- Parameter description

Table 5-44 Parameter description

Name	Mandatory	Type	Description
resize	Yes	Object	Specifies the specification information. For more information, see Table 5-45 .

Table 5-45 resize field data structure description

Name	Mandatory	Type	Description
target_type	No	String	Specifies the object type: - This parameter is mandatory for a cluster instance. When the mongos node specifications are to be modified, the value is mongos. When the shard nodes specifications are to be modified, the value is shard. - This parameter is not transferred for replica set instances.
target_id	Yes	String	Specifies the ID of the DB instance or node whose specifications are to be modified. - If the mongos node specifications are to be modified, the value is mongos node ID. If the shard nodes specifications are to be modified, the value is shard node ID. - For a replica set instance, the value is the DB instance ID.
target_spec_code	Yes	String	Specifies the resource specification code of the new specification. For details about how to obtain the value, see the response values of flavors.spec_code in Querying All DB Instance Specifications .

- Request header
POST https://DDS.endpoint/v3/{project_id}/instances/{instance_id}/resize
- Example request

Modify the mongos specifications in a cluster instance.

```
{
  "resize": {
    "target_type": "mongos",
    "target_id": "a742c13a284949adad177672e8a0f01cno02",
```

```
"target_spec_code": "dds.c3.large.4.mongos"
}
```

Modify the shard specifications in a cluster instance.

```
{
  "resize": {
    "target_type": "shard",
    "target_id": "aeeb40a704904977ad78993d138ec942gr02",
    "target_spec_code": "dds.c3.large.4.shard"
  }
}
```

Modify specifications of a replica set instance.

```
{
  "resize": {
    "target_id": "aeeb40a704904977ad78993d138ec942in02",
    "target_spec_code": "dds.c3.medium.4.repset"
  }
}
```

Responses

- Parameter description

Table 5-46 Parameter description

Name	Type	Description
job_id	String	Indicates the task ID.

- Response example

```
{
  "job_id": "3711e2ad-5787-49bc-a47f-3f0b066af9f5"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5.8 Performing a Primary/Secondary Switchover in a Replica Set Instance

Function

This API is used to perform a primary/secondary switchover in a replica set instance.

Restrictions

- This API supports only the DDS replica set.

- This API can freeze instances except abnormal instances.

URI

- URI format
POST /v3/{project_id}/instances/{instance_id}/switchover
- Parameter description

Table 5-47 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the DB instance ID.

Requests

- Request header
POST *https://DDS endpoint/v3/{project_id}/instances/{instance_id}/switchover*
- Example request
N/A

Responses

- Parameter description

Table 5-48 Parameter description

Name	Type	Description
job_id	String	Indicates the task ID.

- Response example
{
 "job_id": "3711e2ad-5787-49bc-a47f-3f0b066af9f5"
}

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5.9 Enabling or Disabling SSL

Function

This API is used to enable or disable SSL.

Restrictions

- This API can freeze instances except abnormal instances.
- The DB instance must be restarted to make port number modifications take effect. Exercise caution when enabling or disabling SSL.

URI

- URI format
POST /v3/{project_id}/instances/{instance_id}/switch-ssl
- Parameter description

Table 5-49 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the DB instance ID.

Requests

- Parameter description

Table 5-50 Parameter description

Name	Mandatory	Type	Description
ssl_option	Yes	String	Specifies whether to enable or disable SSL. Valid value: • The value 0 indicates that SSL is disabled by default. • The value 1 indicates that SSL is enabled by default.

- Request header
POST *https://DDS endpoint/v3/{project_id}/instances/{instance_id}/switch-ssl*
- Example request

```
{
  "ssl_option": "0"
}
```

Responses

- Parameter description

Table 5-51 Parameter description

Name	Type	Description
job_id	String	Indicates the workflow ID.
ssl_option	String	Specifies whether to enable or disable SSL. Valid value: • The value 0 indicates that SSL is disabled by default. • The value 1 indicates that SSL is enabled by default.

- Response example

```
{
  "job_id": "3711e2ad-5787-49bc-a47f-3f0b066af9f5",
  "ssl_option": "0"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5.10 Changing the Administrator Password

Function

This API is used to change the administrator password.

Restrictions

- This API can freeze instances except abnormal instances.
- Currently, only the password of user **rwuser** can be changed.

URI

- URI format
PUT /v3/{project_id}/instances/{instance_id}/reset-password
- Parameter description

Table 5-52 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.

Name	Mandatory	Description
instance_id	Yes	Specifies the DB instance ID.

Requests

- Parameter description

Table 5-53 Parameter description

Name	Mandatory	Type	Description
user_pwd	Yes	String	Specifies the database password. The value must be 8 to 32 characters in length and contain uppercase letters (A to Z), lowercase letters (a to z), digits (0 to 9), and special characters, such as ~!@#%^*-_+=? You are advised to enter a strong password to improve security, preventing security risks such as brute force cracking.

- Request header
PUT *https://DDS endpoint/v3/{project_id}/instances/{instance_id}/reset-password*
- Example request

```
{
  "user_pwd": "Test_123"
}
```

Responses

- Response example

```
{}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5.11 Modifying a DB Instance Name

Function

This API is used to modify a DB instance name.

Restrictions

- The name of the DB instance that is being created or fails to be created cannot be modified.

URI

- URI format
PUT /v3/{project_id}/instances/{instance_id}/modify-name
- Parameter description

Table 5-54 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the DB instance ID.

Requests

- Parameter description

Table 5-55 Parameter description

Name	Mandatory	Type	Description
new_instance_name	Yes	String	Indicates the DB instance name. The DB instance name of the same DB engine is unique for the same tenant. The value must be 4 to 64 characters in length and start with a letter (from A to Z or from a to z). It is case-sensitive and can contain only letters, digits (from 0 to 9), hyphens (-), and underscores (_).

- Request header
PUT ***https://DDS endpoint/v3/{project_id}/instances/{instance_id}/modify-name***
- Example request

```
{  
  "new_instance_name": "myNewName"  
}
```

Responses

- Response example

```
{}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5.12 Changing a Database Port

Function

This API is used to change a database port.

Restrictions

- This API can freeze instances except abnormal instances.
- The DB instance must be restarted to make port number modifications take effect. Exercise caution when modifying the database port.

URI

- URI format
POST /v3/{project_id}/instances/{instance_id}/modify-port
- Parameter description

Table 5-56 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the DB instance ID.

Requests

- Parameter description

Table 5-57 Parameter description

Name	Mandatory	Type	Description
port	Yes	Integer	Indicates the port number. The port number ranges from 2100 to 9500.

- Request header
POST *https://DDS endpoint/v3/{project_id}/instances/{instance_id}/modify-port*
- Example request

```
{  "port": "8888"}
```

Responses

- Parameter description

Table 5-58 Parameter description

Name	Type	Description
job_id	String	Indicates the workflow ID.
port	Integer	Indicates the port number.

- Response example

```
{  "job_id": "3711e2ad-5787-49bc-a47f-3f0b066af9f5",  "port": "8888"}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5.13 Changing a Security Group

Function

This API is used to change the security group associated with a DB instance.

Restrictions

- Abnormal instances do not support this operation.
- Please confirm the modified security group policy. This policy may affect the current instance connection, causing the connection interruption.

URI

- URI format
POST */v3/{project_id}/instances/{instance_id}/modify-security-group*
- Parameter description

Table 5-59 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the DB instance ID.

Requests

- Parameter description

Table 5-60 Parameter description

Name	Mandatory	Type	Description
security_group_id	Yes	String	Specifies the ID of the new security group.

- Request header
POST *https://DDS endpoint/v3/{project_id}/instances/{instance_id}/modify-security-group*
- Example request

```
{
  "security_group_id": "73bed21a-708b-4985-b697-a96d0e0d2b39"
}
```

Responses

- Parameter description

Table 5-61 Parameter description

Name	Type	Description
job_id	String	Indicates the workflow ID.
security_group_id	String	Indicates the ID of the new security group.

- Response example

```
{
  "job_id": "3711e2ad-5787-49bc-a47f-3f0b066af9f5",
  "security_group_id": "73bed21a-708b-4985-b697-a96d0e0d2b39"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5.14 Binding an EIP

Function

This API is used to bind an EIP to a node in a DB instance.

Restrictions

- This API can freeze instances except abnormal instances.
- Hidden nodes do not support this operation.
- Multiple EIPs cannot be bound to the same node.

URI

- URI format
POST /v3/{project_id}/nodes/{node_id}/bind-eip
- Parameter description

Table 5-62 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
node_id	Yes	Specifies the ID of the node to which the EIP is to be bound. • Select the mongos node in a cluster instance • Select the primary or secondary node in a replica set instance.

Requests

- Parameter description

Table 5-63 Parameter description

Name	Mandatory	Type	Description
public_ip_id	Yes	String	Specifies the ID of the EIP.
public_ip	Yes	String	Specifies the EIP.

- Request header
POST *https://DDS endpoint/v3/{project_id}/nodes/{node_id}/bind-eip*
- Example request

```
{  
  "public_ip": "10.145.51.128",
```

```
"public_ip_id": "45da4782-e0c8-4aa4-a290-b8740014f710"
}
```

Responses

- Parameter description

Table 5-64 Parameter description

Name	Type	Description
job_id	String	Indicates the workflow ID.
node_name	String	Indicates the node name.
node_id	String	Indicates the node ID.
public_ip_id	String	Specifies the ID of the EIP.
public_ip	String	Specifies the EIP.

- Response example

```
{
  "job_id": "3711e2ad-5787-49bc-a47f-3f0b066af9f5",
  "node_id": "52a4c096bb1f455d8d866956a959519eno02",
  "node_name": "mongodb-8977_mongos_node_1",
  "public_ip": "10.145.51.128",
  "public_ip_id": "45da4782-e0c8-4aa4-a290-b8740014f710"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5.15 Unbinding an EIP

Function

This API is used to unbind an EIP from a node in a DB instance.

Restrictions

- Frozen instances do not support this operation.
- This operation can be performed only on a node with an EIP assigned.

URI

- URI format
POST /v3/{project_id}/nodes/{node_id}/unbind-eip
- Parameter description

Table 5-65 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
node_id	Yes	Specifies the ID of the node from which the EIP is to be unbound.

Requests

- Request header
POST *https://DDS endpoint/v3/{project_id}/nodes/{node_id}/unbind-eip*
- Example request
N/A

Responses

- Parameter description

Table 5-66 Parameter description

Name	Type	Description
job_id	String	Indicates the workflow ID.
node_name	String	Indicates the node name.
node_id	String	Indicates the node ID.

- Response example

```
{
  "job_id": "3711e2ad-5787-49bc-a47f-3f0b066af9f5",
  "node_id": "52a4c096bb1f455d8d866956a959519eno02",
  "node_name": "mongodb-8977_mongos_node_1"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.5.16 Changing a Private IP Address

Function

This API is used to change the private IP address of a DB instance.

Restrictions

- This API can freeze instances except abnormal instances.
- An in-use IP address cannot be used as the new private IP address of a DB instance.
- Changing the private IP address will cause the original database connection address to become invalid. If an EIP has been bound to the DB instance, do not unbind the EIP when the private IP address is being changed.
- This operation is not allowed if connection address switchover is enabled.
- Currently, only the IPv4 address is supported.

URI

- URI format
POST /v3/{project_id}/instances/{instance_id}/modify-internal-ip
- Parameter description

Table 5-67 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the DB instance ID.

Requests

- Parameter description

Table 5-68 Parameter description

Name	Mandatory	Type	Description
new_ip	Yes	String	Specifies the new IP address, which must be in an available VPC CIDR block. Only IPv4 is supported.
node_id	Yes	String	Specifies the node ID.

- Request header
POST *https://DDS endpoint/v3/{project_id}/instances/{instance_id}/modify-internal-ip*
- Example request

```
{
  "node_id": "52a4c096bb1f455d8d866956a959519eno02",
  "new_ip": "192.168.0.133"
}
```

Responses

- Parameter description

Table 5-69 Parameter description

Name	Type	Description
job_id	String	Indicates the workflow ID.
node_id	String	Indicates the node ID.
new_ip	String	Indicates the new private IP address.

- Response example

```
{
  "job_id":"3711e2ad-5787-49bc-a47f-3f0b066af9f5",
  "node_id":"52a4c096bb1f455d8d866956a959519eno02",
  "new_ip":"192.168.0.133"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.6 Connection Management

5.6.1 Querying Sessions of an Instance Node

API Description

This API is used to query sessions of instance nodes.

Restrictions

Community Edition 3.4 and 4.0 instances are supported.

URI

- URI format
GET https://{Endpoint}/v3/{project_id}/nodes/{node_id}/sessions

Request Parameters

Parameter description

Table 5-70 Request parameters

Name	Type	IN	Mandatory	Description
x-auth-token	string	header	Yes	User token
project_id	string	path	Yes	The project ID of a tenant in a region.
node_id	string	path	Yes	The node ID. • Select the mongos node in a cluster instance. • Select the primary or secondary node in a replica set instance.

Table 5-71 Query parameters

Parameter	Type	Mandatory	Description
offset	Integer	No	The index position. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.
limit	Integer	No	The number of records to be queried. The value range is [1, 20]. The default value is 10 , indicating that 10 records are returned.
plan_summary	String	No	The description of an execution plan. If this parameter is left empty, sessions in which plan_summary is empty are queried. You can also specify an execution plan, for example, COLLSCAN IXSCAN FETCH SORT LIMIT SKIP COUNT COUNT_SCAN TEXT PROJECTION
type	String	No	The operation type. If this parameter is left empty, sessions in which type is empty are queried. You can also specify an operation type, for example, none update insert query command getmore remove killcursors.

Parameter	Type	Mandatory	Description
namespace	String	No	The namespace. If this parameter is left blank, the sessions in which namespace is empty are queried. You can also specify the value based on the service requirements.
cost_time	Integer	No	The duration. The unit is us. If this parameter is left empty, the sessions in which cost_time is empty are queried. You can also set this parameter based on the service requirements, indicating that the sessions in which the value of cost_time exceeds the specified value are queried.

Response Parameters

- Parameter description

Table 5-72 Response body parameters

Parameter	Type	Mandatory	Description
total_count	Integer	Yes	The total number of records.
sessions	Array of objects	Yes	The detailed information. For details, see the QuerySessionResponse table.

Table 5-73 Data structure description of the session field

Parameter	Type	Description
id	String	The session ID.
active	Boolean	Whether the current session is active. If the value is "true" , the session is active. If the value is "false" , the session is inactive.
operation	String	Operation.
type	String	Operation type.
cost_time	String	Duration. The unit is us.
plan_summary	String	The description of an execution plan.

Parameter	Type	Description
host	String	Host.
client	String	Client address.
description	String	Indicates the connection description.
namespace	String	Namespace.

Response example

```
{
  "total_count" : 1,
  "sessions" : [ {
    "id" : "shard_1:7201646",
    "active" : true,
    "operation" : "{ \"getMore\":4.9473050217983027E18,\"collection\":\"$cmd.aggregate\", \"batchSize\":101.0,\"lsid\":{\"id\":{\"$binary\":{\"base64\":\"9FhcBFVeTzafCH8BUZrLjQ\\|=\\|=\", \"subType\":\"03\"}},\"uid\":{\"$binary\":{\"base64\":\"O0CMtIVitQN4IsEOsJdrPL8s7jv5xwh5a/A5Qfvs2A8\\|=\", \"subType\":\"00\"}},\"clusterTime\":{\"clusterTime\":{\"$timestamp\":{\"t\":1.614047961E9,\"i\":1.0}},\"signature\":{\"hash\":{\"$binary\":{\"base64\":\"HxUWu68VyfvQFivWjHQDdJj/3YQ\\|=\", \"subType\":\"00\"}},\"keyId\":6.9312672235666801E18}},\"client\":{\"driver\":{\"name\":\"PyMongo\"},\"version\":\"3.6.1\"},\"os\":{\"type\":\"Linux\"},\"name\":\"Linux\", \"architecture\":\"x86_64\", \"version\":\"4.18.0-147.5.1.0.el8_2.x86_64\", \"platform\":\"CPython 3.7.4.final.0\", \"mongos\":{\"host\":\"host-172-16-61-110:8635\", \"client\":\"127.0.0.1:33420\", \"version\":\"4.0.3\"}},\"$configServerState\":{\"opTime\":{\"ts\":{\"$timestamp\":{\"t\":1.614047961E9,\"i\":1.0}},\"t\":2.0}},\"$db\":\"admin\"\", \"type\" : \"getmore\", \"cost_time\" : \"25\", \"plan_summary\" : \"COLLSCAN\", \"host\" : \"host-172-16-27-182:8635\", \"client\" : \"172.16.41.233:50700\", \"description\" : \"conn20\", \"namespace\" : \"admin.$cmd.aggregate\" } ]
  }
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.6.2 Killing Sessions of an Instance Node

Description

This API is used to kill sessions of an instance node.

Restrictions

- Community Edition 3.4 and 4.0 instances are supported.

- Inactive sessions cannot be terminated.

URI

- URI format
POST `https://{Endpoint}/v3/{project_id}/nodes/{node_id}/session`

Table 5-74 Request parameters

Name	Type	IN	Mandatory	Description
x-auth-token	string	header	Yes	User token
project_id	string	path	Yes	The project ID of a tenant in a region.
node_id	string	path	Yes	The node ID. • Select the mongos node in a cluster instance. • Select the primary or secondary node in a replica set instance.

Requests

- Parameter description

Table 5-75 Request body parameters

Parameter	Type	Mandatory	Description
sessions	Array of strings	Yes	The IDs of sessions to be terminated. For details, see the session ID returned in Table 5-73 .

Example Request

Killing sessions of an instance node based on the session ID list

```
{
  "sessions": [ "34631", "34703" ]
}
```

Responses

```
{}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.6.3 Querying the Number of Connections to an Instance Node

Description

This API is used to query the number of connections from each client to DDS DB instances.

Restrictions

Frozen instances do not support this operation.

URI

- URI format
GET `https://{Endpoint}/v3/{project_id}/instances/{instance_id}/conn-statistics?node_id={node_id}`

Requests

Parameter description

Table 5-76 Request parameters

Name	Type	IN	Man dator y	Description
x-auth-token	string	head er	Yes	User token
project_id	string	path	Yes	The project ID of a tenant in a region.
instance_id	string	path	Yes	Instance ID.
node_id	string	query	No	The node ID. If this parameter is left blank, the number of connections of all nodes that can be connected in the instance is queried by default.

Responses

- Response parameters

Table 5-77 Response body parameters

Parameter	Type	Mandator y	Description
total_conne ctions	Integer	Yes	The total number of connections, including internal and external connections.
total_inner_ connections	Integer	Yes	The total number of internal connections.
total_outer_ connections	Integer	Yes	The total number of external connections.
inner_conne ctions	Array of objects	Yes	The internal connection statistics array. Up to 200 records are supported. For details, see Table 5-78 .
outer_conn ections	Array of objects	Yes	The external connection statistics array. Up to 200 records are supported. For details, see Table 5-78 .

Table 5-78 Data structure description of the inner_connections and outer_connections fields

Parameter	Type	Mandator y	Description
client_ip	String	Yes	The IP address of the client connected to the instance or node.
count	Integer	Yes	The number of connections corresponding to the IP address.

- Response example

```
{
  "total_connections": 75,
  "total_inner_connections": 50,
  "total_outer_connections": 25,
  "inner_connections": [
    {"client_ip": "10.10.10.24", "count": 19},
    {"client_ip": "9.3.185.42", "count": 6},
    {"client_ip": "10.10.4.156", "count": 3}
  ],
  "outer_connections": [
    {"client_ip": "10.10.10.25", "count": 11},
    {"client_ip": "9.3.185.46", "count": 8},
    {"client_ip": "10.10.4.157", "count": 4}
  ]
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.7 Backup and Restoration

5.7.1 Creating a Manual Backup

Function

This API is used to create a manual backup for a DB instance.

URI

- URI format
POST /v3/{project_id}/backups
- Parameter description

Table 5-79 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.

Requests

- Parameter description

Table 5-80 Parameter description

Name	Mandatory	Type	Description
backup	Yes	Object	Specifies the backup parameter objects For more information, see Table 5-81 .

Table 5-81 backup field data structure description

Name	Mandatory	Type	Description
instance_id	Yes	String	Specifies the DB instance ID.
name	Yes	String	Specifies the manual backup name. The value must be 4 to 64 characters in length and start with a letter (from A to Z or from a to z). It is case-sensitive and can contain only letters, digits (from 0 to 9), hyphens (-), and underscores (_).
description	No	String	Specifies the manual backup description. The description must consist of a maximum of 256 characters and cannot contain the following special characters: >! <"&'=

- Request header
POST *https://DDS.endpoint/v3/{project_id}/backups*

- Example request

```
{
  "backup":{
    "instance_id": "a89dab5e39394eccbdb77b19d57b0180in02",
    "name": "mybackup1",
    "description": "The first Manual backup"
  }
}
```

Responses

- Parameter description

Table 5-82 Parameter description

Name	Type	Description
backup_id	String	Indicates the manual backup ID.

- Response example

```
{
  "backup_id": "bf9ee62a7f7044c583c6765c916c36edbr02"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.7.2 Deleting a Manual Backup

Function

This API is used to delete a manual backup for a DB instance.

URI

- URI format
DELETE /v3/{project_id}/backups/{backup_id}
- Parameter description

Table 5-83 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
backup_id	Yes	Specifies the backup file ID.

Requests

- Request header
DELETE *https://DDS endpoint/v3/{project_id}/backups/{backup_id}*
- Request body
N/A

Responses

- Parameter description

Table 5-84 Parameter description

Name	Type	Description
job_id	String	Indicates the task ID.

- Response example

```
{
  "job_id": "fcaab90b-960d-4441-b73d-a5b2532c5ec5"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.7.3 Querying the Backup List

Function

This API is used to query backups based on specified conditions.

URI

- URI format

```
GET /v3/{project_id}/backups?
instance_id={instance_id}&backup_id={backup_id}&backup_type={backup_type}&offset={offset}&limit={limit}&begin_time={begin_time}&end_time={end_time}&mode={mode}
```

- Parameter description

Table 5-85 Parameter description

Name	Mandator y	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	No	Specifies the DB instance ID.
backup_id	No	Specifies the backup ID.
backup_type	No	Specifies the backup type. • Auto: indicates automated full backup. • Manual indicates manual full backup.

Name	Mandator y	Description
offset	No	Specifies the index position. The query starts from the next instance creation time indexed by this parameter under a specified project. If offset is set to N, the resource query starts from the N+1 piece of data The value must be greater than or equal to 0. If this parameter is not transferred, offset is set to 0 by default, indicating that the query starts from the latest created DB instance.
limit	No	Specifies the maximum allowed number of backups to be queried. The value ranges from 1 to 100. If this parameter is not transferred, the first 100 DB instances are queried by default.
begin_time	No	Specifies the start time for the query. The format of the start time is yyyy-mm-dd hh:mm:ss. The value is in UTC format. NOTE When end_time is not empty, begin_time is mandatory.
end_time	No	Specifies the end time of the query. The format is yyyy-mm-dd hh:mm:ss. The value is in UTC format. NOTE When begin_time is not empty, end_time is mandatory.
mode	No	Specifies the DB instance mode. Valid value: • Sharding • ReplicaSet

Requests

- Request header
GET *https://DDS endpoint/v3/97b026aa9cc4417888c14c84a1ad9860/backups?instance_id=c0c9f155c7b7423a9d30f0175998b63bin01&offset=0&limit=10&begin_time=2018-08-06 10:41:14&end_time=2018-08-16 10:41:14*
- Request body
N/A

Responses

- Parameter description

Table 5-86 Parameter description

Name	Type	Description
backups	Array of objects	Indicates the backup list. For more information, see Table 5-87 .
total_count	Integer	Indicates the total number of queried records.

Table 5-87 backups field data structure description

Name	Type	Description
id	String	Indicates the backup ID.
name	String	Indicates the backup name.
instance_id	String	Indicates the ID of the DB instance for which the backup is created.
instance_name	String	Indicates the name of the DB instance for which the backup is created.
datastore	Object	Indicates the database version. For more information, see Table 5-88 .
type	String	Indicates the backup type. • Auto: indicates automated full backup. • Manual indicates manual full backup.
begin_time	String	Indicates the backup start time. The format of the start time is yyyy-mm-dd hh:mm:ss . The value is in UTC format.
end_time	String	Indicates the backup end time. The format of the end time is yyyy-mm-dd hh:mm:ss . The value is in UTC format.

Name	Type	Description
status	String	Indicates the backup status. Valid value: • BUILDING: Backup in progress • COMPLETED: Backup completed • FAILED: Backup failed • DISABLED: Backup being deleted
size	Long	Indicates the backup size in KB.
description	String	Indicates the backup description.

Table 5-88 datastore field data structure description

Name	Type	Description
type	String	Indicates the DB engine. Valid value: DDS-Community .
version	String	Indicates the database of version 3.3, 3.4, 4.0, 4.2, or 4.4. The value is 3.2, 3.4, 4.0, 4.2, or 4.4 .

- Response example

```
{
  "backups": [
    {
      "id": "43e4feaab48f11e89039fa163ebaa7e4br01",
      "name": "backup-test",
      "instance_id": "43e4feaab48f11e89039fa163ebaa7e4br01",
      "instance_name": "cluster-test",
      "datastore": {
        "type": "DDS-Community",
        "version": "3.4"
      },
      "type": "auto",
      "begin_time": "2018-08-06 12:41:14",
      "end_time": "2018-08-06 12:43:14",
      "status": "COMPLETED",
      "size": 2803,
      "description": "backup description"
    }
  ],
  "total_count": 1
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.7.4 Querying an Automated Backup Policy

Function

This API is used to query an automated backup policy.

URI

- URI format
GET `/v3/{project_id}/instances/{instance_id}/backups/policy`
- Parameter description

Table 5-89 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the DB instance ID.

Requests

- Request header
GET `https://DDS endpoint/v3/{project_id}/instances/{instance_id}/backups/policy`
- Request body
N/A

Responses

- Parameter description

Table 5-90 Parameter description

Name	Type	Description
backup_policy	Object	Indicates the backup policy object, including the backup retention period (days) and start time. For more information, see Table 5-91 .

Table 5-91 backup_policy field data structure description

Name	Type	Description
keep_days	Integer	Indicates the number of days to retain the backup files.
start_time	String	Indicates the backup time window. Automated backups will be triggered during the backup time window.
period	String	Indicates the backup cycle configuration. Data will be automatically backed up on the selected days every week.

- Response example

Enable the automated backup policy.

```
{
  "backup_policy": {
    "keep_days": 7,
    "start_time": "19:00-20:00",
    "period": "1,2,4,5,6"
  }
}
```

Disabled the automated backup policy.

```
{
  "backup_policy": {
    "keep_days": 0
  }
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.7.5 Setting an Automated Backup Policy

Function

This API is used to set an automated backup policy.

URI

- URI format
PUT /v3/{project_id}/instances/{instance_id}/backups/policy
- Parameter description

Table 5-92 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the DB instance ID.

Requests

- Parameter description

Table 5-93 Parameter description

Name	Mandatory	Type	Description
backup_policy	Yes	Object	Specifies the backup policy object, including the backup retention period (days) and start time. For more information, see Table 5-94 .

Table 5-94 backup_policy field data structure description

Name	Mandatory	Type	Description
keep_days	Yes	Integer	Specifies the number of days to retain the generated backup files. The value range is from 0 to 732. The value 0 indicates that the automated backup policy is disabled.

Name	Mandatory	Type	Description
start_time	No	String	Specifies the backup time window. Automated backups will be triggered during the backup time window. This parameter is mandatory if the automated backup policy is enabled. This parameter is not transferred if the automated backup policy is disabled. The value must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format. • The HH value must be 1 greater than the hh value. • The values of mm and MM must be the same and must be set to any of the following: 00, 15, 30, or 45. Example value: • 08:15-09:15 • 23:00-00:00

Name	Mandatory	Type	Description
period	No	String	Specifies the backup cycle configuration. Data will be automatically backed up on the selected days every week. Value range: The value is a number separated by DBS case commas (,). The number indicates the week. The restrictions on the backup retention period are as follows: • This parameter is not transferred if its value is set to 0. • If you set the retention period to 1 to 6 days, data is automatically backed up each day of the week. Set the parameter value to 1,2,3,4,5,6,7. • If you set the retention period to 7 to 732 days, select at least one day of the week for the backup cycle. Example value: 1,2,3,4

- Request header
PUT *https://DDS endpoint/v3/{project_id}/instances/{instance_id}/backups/policy*

- Example request
Enable or modify an automated backup policy.

```
{
  "backup_policy": {
    "keep_days": 9,
    "start_time": "08:15-09:15",
    "period": "1,4,5,6,7"
  }
}
```

Disable an automated backup policy.

```
{
  "backup_policy": {
    "keep_days": 0
  }
}
```

```
}  
}
```

Responses

```
{}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.7.6 Restoring Data to a New DB Instance

Function

This API is used to restore a DB instance using the backup.

URI

- URI format
POST /v3/{project_id}/instances
- Parameter description

Table 5-95 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.

Requests

- Parameter description

Table 5-96 Parameter description

Name	Mandatory	Type	Description
name	Yes	String	Specifies the DB instance name. The DB instance name of the same DB engine is unique for the same tenant. The value must be 4 to 64 characters in length and start with a letter (from A to Z or from a to z). It is case-sensitive and can contain only letters, digits (from 0 to 9), hyphens (-), and underscores (_).
availability_zone	Yes	String	Specifies the AZ ID. The value cannot be empty. For details about how to obtain this parameter value, see Regions and Endpoints.
vpc_id	Yes	String	Indicates the VPC ID. For details about how to obtain this parameter value, see section "Virtual Private Cloud" in the <i>Virtual Private Cloud API Reference</i>. The value cannot be empty. The string length and whether the string complying with UUID regular expression rules are verified.
subnet_id	Yes	String	Specifies the subnet ID. For details about how to obtain this parameter value, see section "Subnet" in the <i>Virtual Private Cloud API Reference</i>.

Name	Mandatory	Type	Description
security_group_id	Yes	String	Specifies the ID of the security group where a specified DB instance belongs to. For details about how to obtain this parameter value, see section "Security Group" in the <i>Virtual Private Cloud API Reference</i>.
password	No	String	Specifies the database password. The value must be 8 to 32 characters in length and contain uppercase letters (A to Z), lowercase letters (a to z), digits (0 to 9), and special characters, such as ~!@#%^*-_+=? You are advised to enter a strong password to improve security, preventing security risks such as brute force cracking.
disk_encryption_id	No	String	Specifies the key ID used for disk encryption. The string must comply with UUID regular expression rules. Only the community edition engine is supported. If this parameter is not transferred, disk encryption is not performed.
flavor	Yes	Array of objects	Specifies the instance specifications. For more information, see Table 5-98. For details about how to obtain the value, see the parameter value in Querying All DB Instance Specifications.

Name	Mandatory	Type	Description
restore_point	Yes	Object	Specifies the details about the backup to be restored to a new DB instance. For more information, see Table 5-97 .
backup_strategy	No	Object	Specifies the advanced backup policy. For more information, see Table 5-99 .
enterprise_project_id	No	String	Specifies the enterprise project ID. • This parameter is not transferred for users who have not enabled the enterprise multi-project service. • If this parameter is not transferred for a user who has enabled the enterprise multi-project service, the value is the default enterprise project.
ssl_option	No	String	Specifies whether to enable or disable SSL. Valid value: • The value 0 indicates that SSL is disabled by default. • The value 1 indicates that SSL is enabled by default. If this parameter is not transferred, SSL is enabled by default.

Table 5-97 restore_point field data structure description

Name	Mandatory	Type	Description
backup_id	Yes	String	Specifies the ID of the backup to be restored.

Table 5-98 flavor field data structure description

Name	Mandatory	Type	Description
type	Yes	String	Specifies the node type. Valid value: - For a Community Edition cluster instance, the value can be mongos, shard, or config. - For a Community Edition replica set instance, the value is replica.
num	Yes	Integer	Specifies node quantity. Valid value: - This parameter is not transferred for shard nodes. - mongos: The value ranges from 2 to 32. - config: The value is 1. - replica: The value is 1.

Name	Mandatory	Type	Description
size	In the community edition, this parameter is optional for all nodes except mongos and invalid for mongos. This parameter is not transferred for Enhanced Edition DB instances.	Integer	Specifies the disk size. The value must be a multiple of 10. The unit is GB. - For a cluster instance of Community Edition, the shard size ranges from 10 GB to 2000 GB and must be greater than or equal to the disk size of the original instance. The config size can only be 20 GB. This parameter is invalid for mongos nodes. Therefore, you do not need to specify the storage space for mongos nodes. - For a replica set instance of Community Edition, the disk size ranges from 10 GB to 2000 GB and must be greater than or equal to the disk size of the original instance.
spec_code	Yes	String	Specifies the resource specification code. For details about how to obtain the value, see the parameter value in Querying All DB Instance Specifications .

Table 5-99 backup_strategy field data structure description

Name	Mandatory	Type	Description
start_time	Yes	String	Specifies the backup time window. Automated backups will be triggered during the backup time window. The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format. • The HH value must be 1 greater than the hh value. • The values of mm and MM must be the same and must be set to any of the following: 00, 15, 30, or 45. Example value: • 08:15-09:15 • 23:00-00:00
keep_days	No	String	Specifies the number of days to retain the generated backup files. The value range is from 0 to 732. • If this parameter is set to 0, the automated backup policy is not set. • If this parameter is not transferred, the automated backup policy is enabled by default. Backup files are stored for seven days by default.

 NOTE

The values of **region** and **availability_zone** are used as examples.

- Request header
POST *https://DDS endpoint/v3/{project_id}/instances*
- Example request
Restore the backup of a Community Edition cluster to a new DB instance.

```
{
  "name": "test-cluster-01",
  "availability_zone": "bbb",
  "vpc_id": "674e9b42-cd8d-4d25-a2e6-5abcc565b961",
  "subnet_id": "f1df08c5-71d1-406a-aff0-de435a51007b",
  "security_group_id": "7aa51dbf-5b63-40db-9724-dad3c4828b58",
  "password": "Test@123",
  "restore_point": {
    "backup_id": "8f643d252d834a4c916b2db4322f99552734"
  },
  "flavor": [{
    "type": "mongos",
    "num": 2,
    "spec_code": "dds.c3.medium.4.mongos"
  },
  {
    "type": "shard",
    "size": 40,
    "spec_code": "dds.c3.medium.4.shard"
  },
  {
    "type": "config",
    "num": 1,
    "size": 20,
    "spec_code": "dds.c3.large.2.config"
  }
],
  "backup_strategy": {
    "start_time": "08:15-09:15",
    "keep_days": "8"
  }
}
```

Restore the backup of a replica set instance:

```
{
  "name": "test-replicaset",
  "availability_zone": "bbb",
  "vpc_id": "674e9b42-cd8d-4d25-a2e6-5abcc565b961",
  "subnet_id": "f1df08c5-71d1-406a-aff0-de435a51007b",
  "security_group_id": "7aa51dbf-5b63-40db-9724-dad3c4828b58",
  "password": "Test@123",
  "restore_point": {
    "backup_id": "8f643d252d834a4c916b2db4322f99552734"
  },
  "flavor": [
    {
      "type": "replica",
      "num": 1,
      "spec_code": "dds.s2.medium.4.shard"
    }
  ],
  "backup_strategy": {
    "start_time": "08:15-09:15",
    "keep_days": "8"
  }
}
```

Responses

- Parameter description

Table 5-100 Parameter description

Name	Type	Description
id	String	Indicates the DB instance ID.
name	String	Indicates the instance name, which is the same as the request parameter.
datastore	Object	Indicates the database information, which is the same as the request parameter. For more information, see Table 5-18 .
created	String	Indicates the creation time in the following format: yyyy-mm-dd hh:mm:ss.
status	String	Indicates the DB instance status. The value is creating .
region	String	Indicates the region ID, which is the same as the request parameter.
availability_zone	String	Indicates the AZ ID, which is the same as the request parameter.
vpc_id	String	Indicates the VPC ID, which is the same as the request parameter.
subnet_id	String	Indicates the subnet ID, which is the same as the request parameter.
security_group_id	String	Indicates the ID of the security group to which the instance belongs, which is the same as the request parameter.
disk_encryption_id	String	Indicates the ID of the disk encryption key, which is the same as the request parameter.
mode	String	Indicates the instance type, which is the same as the request parameter.

Name	Type	Description
flavor	Array of objects	Indicates the instance specification, which is the same as the request parameter. For more information, see Table 5-98 .
backup_strategy	Object	Indicates the advanced backup policy, which is the same as the request parameter. For more information, see Table 5-99 .
enterprise_project_id	String	Indicates the enterprise project ID. If the value is 0, the resource belongs to the default enterprise project.
job_id	String	Indicates the ID of the workflow for creating a DB instance.

 NOTE

The values of **region** and **availability_zone** are used as examples.

- Response example

Cluster instance of Community Edition:

```
{
  "id": "39b6a1a278844ac48119d86512e0000bin02",
  "name": "test-cluster-01",
  "datastore": {
    "type": "DDS-Community",
    "version": "3.4",
    "storage_engine": "wiredTiger"
  },
  "created": "2019-01-16 09:34:36",
  "status": "creating",
  "region": "aaa",
  "availability_zone": "bbb",
  "vpc_id": "674e9b42-cd8d-4d25-a2e6-5abcc565b961",
  "subnet_id": "f1df08c5-71d1-406a-aff0-de435a51007b",
  "security_group_id": "7aa51dbf-5b63-40db-9724-dad3c4828b58",
  "disk_encryption_id": "",
  "mode": "Sharding",
  "flavor": [
    {
      "type": "mongos",
      "num": 2,
      "spec_code": "dds.c3.medium.4.mongos"
    },
    {
      "type": "shard",
      "num": 2,
      "spec_code": "dds.c3.medium.4.shard",
    }
  ]
}
```

```
    "size": 20
  },
  {
    "type": "config",
    "num": 1,
    "spec_code": "dds.c3.large.2.config",
    "size": 20
  }
],
"backup_strategy": {
  "start_time": "08:15-09:15",
  "keep_days": "8"
},
"enterprise_project_id": "",
"job_id": "c010abd0-48cf-4fa8-8cbc-090f093eaa2f"
}
```

Replica set instance:

```
{
  "id": "46dfadfd2b674585a430217f23606cd7in02",
  "name": "test-replicaset",
  "datastore": {
    "type": "DDS-Community",
    "version": "3.4",
    "storage_engine": "wiredTiger"
  },
  "created": "2019-01-16 09:33:08",
  "status": "creating",
  "region": "aaa",
  "availability_zone": "bbb",
  "vpc_id": "674e9b42-cd8d-4d25-a2e6-5abcc565b961",
  "subnet_id": "f1df08c5-71d1-406a-aff0-de435a51007b",
  "security_group_id": "7aa51dbf-5b63-40db-9724-dad3c4828b58",
  "disk_encryption_id": "",
  "mode": "ReplicaSet",
  "flavor": [
    {
      "type": "replica",
      "num": 1,
      "spec_code": "dds.s2.medium.4.shard",
      "size": 30
    }
  ],
  "backup_strategy": {
    "start_time": "08:15-09:15",
    "keep_days": "7"
  },
  "enterprise_project_id": "",
  "job_id": "2408417d-fd4b-40ae-bec6-e09ce594eb5f"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.7.7 Obtaining the Link for Downloading a Backup File

Description

This API is used to obtain the link for downloading a backup file.

Restrictions

The backup download link is valid within 15 minutes after being updated.

URI

- URI format
GET `https://{Endpoint}/v3/{project_id}/backups/download-file?instance_id={instance_id}&backup_id={backup_id}`

Requests

Parameter description

Table 5-101 Request parameters

Name	Type	IN	Mandator y	Description
x-auth-token	String	head er	Yes	User token.
X-Language	String	head er	No	Language.
project_id	String	path	Yes	Specifies the project ID of a tenant in a region.
instance_id	String	path	Yes	Specifies the DB instance ID.
backup_id	String	query	Yes	Backup ID.

Responses

- Parameter description

Table 5-102 Parameter description

Name	Type	Mandator y	Description
files	Array of objects	Yes	The list of backup files. For more information, see Table 5-103 .

Name	Type	Mandatory	Description
bucket	String	Yes	The name of the bucket where the file is located.

Table 5-103 Data structure description of the files field

Name	Type	Mandatory	Description
name	String	Yes	File name.
size	Long	Yes	Indicates the file size in KB.
download_link	String	Yes	The link for downloading the backup file.
link_expired_time	String	Yes	The link expiration time. The format is "yyyy-mm-ddThh:mm:ssZ". T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset.

- Response example

```
{
  "files": [
    {
      "name": "43e4feaab48f11e89039fa163ebaa7e4br02.xxx",
      "size": 2803,
      "download_link": "https://obs.domainname.com/rdsbucket.username.1/xxxxxx",
      "link_expired_time": "2018-08-016T10:15:14+0000"
    }
  ],
  "bucket": "rdsbucket.bucketname"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.7.8 Querying the Restoration Time Ranges

Description

This API is used to query the restoration time range of a DB instance.

Restrictions

Currently, this API only supports replica set instances and cluster instances 4.0.

URI

- URI format
GET `https://{Endpoint}/v3/{project_id}/instances/{instance_id}/restore-time`

Requests

Parameter description

Table 5-104 Request parameters

Name	Type	IN	Man dator y	Description
x-auth-token	string	head er	Yes	User token.
Content-Type	string	head er	Yes	MIME type of the request body. You are advised to use the default value application/json . For APIs used to upload objects or images, the value can vary depending on the flow type.
X-Language	string	head er	No	Language.
project_id	string	path	Yes	Specifies the project ID of a tenant in a region.
instance_id	String	path	Yes	Specifies the DB instance ID.
date	string	query	Yes	The date to be queried.

Responses

- Parameter description

Table 5-105 Parameter description

Name	Type	Mandato ry	Description
restore_time	Array of objects	Yes	The restoration time ranges. For details, see Table 5-106 .

Table 5-106 restore_time description

Name	Type	Mandatory	Description
start_time	Long	Yes	The start time of the restoration time range in the UNIX timestamp format. The unit is millisecond and the time zone is UTC.
end_time	Long	Yes	The end time of the restoration time range in the UNIX timestamp format. The unit is millisecond and the time zone is UTC.

- Response example

```
{
  "restore_time": [
    {
      "start_time": 1607731200000,
      "end_time": 1607756414000
    },
    {
      "start_time": 1607756825000,
      "end_time": 1607761999000
    },
    {
      "start_time": 1607762943000,
      "end_time": 1607817599000
    }
  ]
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.7.9 Obtaining the List of Databases That Can Be Restored

Description

This API is used to obtain the list of databases that can be restored.

Restrictions

This API applies only to replica sets.

URI

- URI format

GET https://{Endpoint}/v3/{project_id}/instances/{instance_id}/restore-database?restore_time={restore_time}&offset={offset}&limit={limit}

Table 5-107 Request parameters

Name	Type	Mandatory	Description
x-auth-token	String	Yes	User token.
X-Language	String	No	Language.
project_id	String	Yes	Specifies the project ID of a tenant in a region.
instance_id	String	Yes	Specifies the DB instance ID.
restore_time	String	Yes	Specifies the restoration time point. The value is a UNIX timestamp, in milliseconds. The time zone is UTC.
offset	Integer	No	Specifies the index position. - The value must be greater than or equal to 0. - If this parameter is not transferred, the value is 0 by default.
limit	Integer	No	Specifies the upper limit of the number of queried records. - The value ranges from 1 to 100. - If this parameter is not transferred, the first 100 records are queried by default.

Requests

None

Responses

- Parameter description

Table 5-108 Parameter description

Name	Type	Mandatory	Description
databases	Array of String	Yes	Indicates the database list. Each element in the list indicates a database.

Name	Type	Mandatory	Description
total_count	Integer	Yes	Indicates the total number of databases.

- Response example

```
{
  "databases": [
    "test_db"
  ],
  "total_count": 1
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.7.10 Obtaining the List of Database Collections That Can Be Restored

Description

This API is used to obtain the list of databases collections that can be restored.

Restrictions

This API applies only to replica sets.

URI

- URI format
GET https://{Endpoint}/v3/{project_id}/instances/{instance_id}/restore-collection?
db_name={db_name}&restore_time={restore_time}&offset={offset}&limit={limit}

Table 5-109 Parameter description

Name	Type	Mandatory	Description
x-auth-token	String	Yes	User token.
X-Language	String	No	Language.

Name	Type	Mandatory	Description
project_id	String	Yes	Specifies the project ID of a tenant in a region.
instance_id	String	Yes	Specifies the DB instance ID.
db_name	String	Yes	Specifies the database name.
restore_time	String	Yes	Specifies the restoration time point. The value is a UNIX timestamp, in milliseconds. The time zone is UTC.
offset	Integer	No	Specifies the index position. • The value is an integer greater than or equal to 0. • If this parameter is not transferred, the value is 0 by default.
limit	Integer	No	Specifies the upper limit of the number of queried records. • The value ranges from 1 to 100. • If this parameter is not transferred, the first 100 records are queried by default.

Requests

None

Responses

- Parameter description

Table 5-110 Parameter description

Name	Type	Mandatory	Description
collections	Array of objects	Yes	Indicates the list of collections. Each element in the list indicates a collection.
total_count	Integer	Yes	Indicates the total number of collections.

Table 5-111 Parameter description

Name	Type	Mandatory	Description
name	String	Yes	Indicates the collection name.

- Response example

```
{
  "collections": [
    "dds-test"
  ],
  "total_count": 1
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.7.11 Restoring Data to the Original DB Instance

Description

This API is used to restore data to the original DB instance.

URI

- URI format
POST https://{Endpoint}/v3/{project_id}/instances/recovery

Table 5-112 Request parameters

Name	Type	IN	Mandatory	Description
x-auth-token	string	header	Yes	User token.
X-Language	string	header	No	Language.
project_id	string	path	Yes	Specifies the project ID of a tenant in a region.

Requests

- Parameter description

Table 5-113 Parameter description

Name	Type	Mandatory	Description
source	Object	Yes	The instance from which the backup was created For details, see Table 5-114 .
target	Object	Yes	The instance to which the backup is restored. For details, see Table 5-115 .

Table 5-114 source field data structure description

Name	Type	Mandatory	Description
instance_id	String	Yes	Specifies the DB instance ID.
type	String	No	The restoration mode. Enumerated values: • backup: indicates using backup files for restoration. In this mode, type is optional and backup_id is mandatory. • timestamp: indicates the point-in-time restoration mode. In this mode, type is mandatory and restore_time is mandatory.
backup_id	String	No	The ID of the backup to be restored. This parameter must be specified when the backup file is used for restoration.

Name	Type	Mandatory	Description
restore_time	String	No	The point in time that data is restored in the UNIX timestamp. The unit is millisecond and the time zone is UTC. NOTE This parameter takes effect only for replica set instances.

Table 5-115 target field data structure description

Name	Type	Mandatory	Description
instance_id	String	Yes	Specifies ID of the DB instance to be restored from a backup. You can call the API for querying DB Instances to obtain the DB instance ID. If you do not have an instance, you can call the API used for creating an instance.

Example Request

- Using a backup to restore data to the original DB instance whose ID is d8e6ca5a624745bcb546a227aa3ae1cfin02

```
{
  "source": {
    "instance_id": "d8e6ca5a624745bcb546a227aa3ae1cfin02",
    "type": "backup",
    "backup_id": "2f4ddb93-b901-4b08-93d8-1d2e472f30fe"
  },
  "target": {
    "instance_id": "d8e6ca5a624745bcb546a227aa3ae1cfin02"
  }
}
```

- Restoring data to a point in time (applicable to replica set instances and cluster instances 4.0) (The original DB instance ID is d8e6ca5a624745bcb546a227aa3ae1cfin02.)

```
{
  "source": {
    "instance_id": "d8e6ca5a624745bcb546a227aa3ae1cfin02",
    "type": "timestamp",
    "restore_time": 1532001446987
  },
  "target": {
    "instance_id": "d8e6ca5a624745bcb546a227aa3ae1cfin02"
  }
}
```

Responses

- Parameter description

Table 5-116 Parameter description

Name	Type	Mandatory	Description
job_id	String	Yes	ID of the asynchronous task for the restore operation.

- Response example

```
{
  "job_id": "a03b1b8a-b756-467c-8a49-38720c3d23ec"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.7.12 Restoring Databases and Tables to a Point in Time

Description

This API is used to restore databases and tables at a point in time.

Restrictions

This API applies only to replica sets.

URI

- URI format
POST https://{Endpoint}/v3/{project_id}/instances/{instance_id}/restore/collections

Table 5-117 Request parameters

Name	Type	IN	Mandatory	Description
x-auth-token	string	header	Yes	User token.
X-Language	string	header	No	Language.

Name	Type	IN	Mandatory	Description
project_id	string	path	Yes	Specifies the project ID of a tenant in a region.
instance_id	string	path	Yes	Specifies the DB instance ID.

Requests

- Parameter description

Table 5-118 Parameter description

Name	Type	Mandatory	Description
restore_collections	Array of objects	Yes	The database information. For details, see Table 5-119 .

Table 5-119 restore_collections data structure description

Name	Type	Mandatory	Description
database	String	Yes	Database name.
collections	Array of objects	No	The collection information. For details, see Table 5-120 .
restore_database_time	String	No	The database restoration time point. This parameter is mandatory for database-level restoration, The value is a UNIX timestamp, in milliseconds. The time zone is UTC.

Table 5-120 collections data structure description

Name	Type	Mandatory	Description
old_name	String	Yes	The table name before the restoration.

Name	Type	Mandatory	Description
new_name	String	No	The table name after the restoration.
restore_collection_time	String	Yes	The collection restoration time point. The value is a UNIX timestamp, in milliseconds. The time zone is UTC.

Example Request

- Restoring a database-level backup (The database name is **test**.)

```
{
  "restore_collections": [
    {
      "database": "test",
      "restore_database_time": 1607762955000
    }
  ]
}
```
- Restoring a collection-level backup (The table name before the restoration is **test**.)

```
{
  "restore_collections": [
    {
      "database": "test",
      "collections": [
        {
          "old_name": "test",
          "restore_collection_time": 1607762955000
        }
      ]
    }
  ]
}
```

Responses

- Parameter description

Table 5-121 Parameter description

Name	Type	Mandatory	Description
job_id	String	Yes	ID of the asynchronous task for the restore operation.

- Response example

```
{
  "job_id": "a03b1b8a-b756-467c-8a49-38720c3d23ec"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.8 Parameter Configuration

5.8.1 Obtaining Parameter Templates

Description

This API is used to obtain parameter templates, including all databases' default parameter templates and user-created parameter templates.

Restrictions

This API applies only to DDS Community Edition.

URI

- URI format
GET `https://{Endpoint}/v3/{project_id}/configurations`

Table 5-122 Request parameters

Name	Type	Mandatory	Description
x-auth-token	String	Yes	User token.
project_id	String	Yes	Project ID of a tenant in a region.

Table 5-123 Query parameters

Parameter	Type	Mandatory	Description
offset	Integer	No	The index position. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.

Parameter	Type	Mandatory	Description
limit	Integer	No	Number of records displayed on each page. The default value is 100.

Requests

None

Responses

- Parameter description

Table 5-124 Response body parameters

Name	Type	Description
total_count	Integer	The total number of queried records.
configurations	Array of objects	The parameter template list. For details, see Table 5-125 .

Table 5-125 Data structure description of the configurations field

Parameter	Type	Description
id	String	Parameter template ID.
name	String	Parameter template name.
description	String	Parameter template description.
datastore_version	String	Database version.
datastore_name	String	Database type.
node_type	String	Node type of the parameter template. ● mongos: the mongos node type. ● shard: the shard node type. ● config: the config node type. ● replica: the replica set type. ● single: the single node type.

Parameter	Type	Description
created	String	Creation time in the "yyyy-MM-ddTHH:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset.
updated	String	Update time in the "yyyy-MM-ddTHH:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset.
user_defined	Boolean	Indicates whether the parameter template is created by users. • false: The parameter template is a default parameter template. • true: The parameter template is a custom template.

- Response example

```
{
  "total_count" : 1,
  "configurations" : [ {
    "id" : "07fc12a8e0e94df7a3fcf53d0b5e1605pr01",
    "name" : "test1",
    "description" : "",
    "datastore_name" : "mongos",
    "node_type" : "shard",
    "datastore_version" : "4.0",
    "created" : "2017-01-01T10:00:00",
    "updated" : "2017-01-01T10:00:00",
    "user_defined" : true
  } ]
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.8.2 Obtaining Details About a Parameter Template

Description

This API is used to obtain parameter details of a specified parameter template.

Restrictions

This API applies only to DDS Community Edition.

URI

- URI format
GET https://{Endpoint}/v3/{project_id}/configurations/{config_id}

Table 5-126 Request parameters

Name	Type	Mandatory	Description
x-auth-token	String	Yes	User token
project_id	String	Yes	Project ID of a tenant in a region.
config_id	String	Yes	Parameter template ID.

Requests

None

Responses

- Parameter description

Table 5-127 Response body parameters

Name	Type	Description
id	String	The parameter template ID.
name	String	Parameter template name.
datastore_version	String	Database version.
datastore_name	String	Database type.
description	String	The parameter template description.
created	String	Creation time in the "yyyy-MM-ddTHH:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset.

Name	Type	Description
updated	String	Update time in the "yyyy-MM-ddTHH:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset.
parameters	Array of objects	The parameters defined by users based on the default parameter templates. For details, see Table 5-128 .

Table 5-128 Data structure description of the parameters field

Name	Type	Description
name	String	The parameter name.
value	String	The parameter value.
description	String	The parameter description.
type	String	Parameter type. The value can be integer , string , boolean , float , or list .
value_range	String	Value range. For example, the value of integer is 0 or 1, and the value of boolean is true or false.
restart_required	Boolean	Whether the instance needs to be restarted. • If the value is true, restart is required. • If the value is false, restart is not required.

Name	Type	Description
readonly	Boolean	Whether the parameter is read-only. • If the value is true, the parameter is read-only. • If the value false, the parameter is not read-only.

- Response example

```
{
  "id": "07fc12a8e0e94df7a3fcf53d0b5e1605pr01",
  "name": "paramsGroup-test",
  "description": "",
  "datastore_name": "mongodb",
  "datastore_version": "4.0",
  "created": "2017-01-01T10:00:00",
  "updated": "2017-01-01T10:00:00",
  "parameters": [
    {
      "name": "cursorTimeoutMillis",
      "type": "integer",
      "value": 600000,
      "description": "Specify the expiration time of idle cursors. DDS will delete idle cursors.",
      "value_range": "600000-1000000",
      "restart_required": false,
      "readonly": false
    }
  ]
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.8.3 Applying a Parameter Template

Description

This API is used to change a parameter template for a specified DB instance.

URI

- URI format
PUT https://{Endpoint}/v3/{project_id}/configurations/{config_id}/apply

Table 5-129 Request parameters

Name	Type	Mandatory	Description
x-auth-token	String	Yes	User token
project_id	String	Yes	Project ID of a tenant in a region.
config_id	String	Yes	Parameter template ID.

Requests

- Parameter description

Table 5-130 Request body parameters

Name	Mandatory	Type	Description
entity_ids	Yes	Array of strings	Instance IDs, group IDs, or node IDs. You can call the API used for querying instances and details to obtain the value. If you do not have an instance, you can call the API used for creating an instance. - If the DB instance type is cluster and the shard or config parameter template is to be changed, the value is the group ID. If the parameter template of the mongos node is changed, the value is the node ID. - If the DB instance to be changed is a replica set instance or a single node instance, the value is the instance ID.

Example Request

Applying a parameter template whose **entity_ids** is **73ea2bf70c73497f89ee0ad4ee008aa2no02** to a specified DB instance

```
{
  "entity_ids": [
    "73ea2bf70c73497f89ee0ad4ee008aa2no02"
  ]
}
```

Responses

- Parameter description

Table 5-131 Response body parameters

Name	Type	Description
job_id	String	Indicates the ID of the asynchronous task for applying a parameter template.

- Response example

```
{  
  "job_id" : "bf26cf3c-d046-4080-bb45-f114be7afa5f"  
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.9 Log Information Queries

5.9.1 Querying Database Slow Logs

Function

This API is used to query database slow logs.

Constraints

A maximum of 2000 records can be queried within the period specified by **start_date** and **end_date**.

URI

- URI format
GET https://{Endpoint}/v3/{project_id}/instances/{instance_id}/slowlog
- Parameter description

Table 5-132 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.

Name	Mandatory	Description
instance_id	Yes	Specifies the instance ID, which can be obtained by calling the API for querying instances. If you do not have an instance, you can call the API used for creating an instance.
start_date	Yes	Specifies the start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. CAUTION The start time is 31 days earlier than the current time.
end_date	Yes	Specifies the end time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. Only slow query logs generated within the last month can be queried. NOTE The end time cannot be later than the current time.
node_id	No	Specifies the node ID. For details, see Table 5-34. If this parameter is left blank, all nodes in the instance can be queried. Nodes that can be queried: - Shard nodes in a cluster instance. - All nodes in a replica set or single node instance.
type	No	Specifies the statement type. If it is left blank, all statement types are queried. Valid value: • INSERT • QUERY • UPDATE • REMOVE • GETMORE • COMMAND • KILLCURSORS

Name	Mandatory	Description
offset	No	Specifies the index position. Its value range is [0, 1999] . If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.
limit	No	Specifies the number of resources to be queried. The value ranges from 1 to 100. The default value is 10 , indicating that 10 records are returned by default. NOTE The sum of limit and offset values must be less than or equal to 2000.

Requests

None

Responses

- Parameter description

Table 5-133 Parameter description

Name	Type	Description
slow_log_list	Array of objects	Indicates detailed information. For details, see Table 5-134 .
total_record	Integer	Indicates the total number of records.

Table 5-134 slow_log_list field data structure description

Name	Type	Description
node_name	String	Indicates the node name.
query_sample	String	Indicates the execution syntax.
type	String	Indicates the statement type.
time	String	Indicates the execution time.
lock_time	String	Indicates the lock wait time.

Name	Type	Description
rows_sent	String	Indicates the number of sent rows.
rows_examined	String	Indicates the number of scanned rows.
database	String	Indicates the database which the slow log belongs to.
start_time	String	Indicates the time in the UTC format.

- Response example

```
{
  "slow_log_list": [
    {
      "node_name": "Test_replica_node_2",
      "query_sample": "{\"responseLength\": 230, \"ts\": {\"$date\": 1605480486800}, \"ninserted\": 1, \"locks\": {\"oplog\": {\"acquireCount\": {\"w\": 1}}, \"Global\": {\"acquireCount\": {\"r\": 3, \"w\": 2}}, \"Collection\": {\"acquireCount\": {\"w\": 2}}, \"Database\": {\"acquireCount\": {\"w\": 3}}}, \"numYield\": 0, \"ns\": \"geographySpace.tiles\"}",
      "type": "REMOVE",
      "time": "101 ms",
      "lock_time": "10 us",
      "rows_sent": "0",
      "rows_examined": "0",
      "database": "geography",
      "start_time": "2020-11-15T22:49:38.643000Z"
    }
  ],
  "total_record": 1
}
```

5.9.2 Obtaining Links for Downloading Slow Query Logs

Function

This API is used to obtain links for downloading slow query logs.

Constraints

The link for downloading slow query logs is valid within 15 minutes after being updated.

URI

- URI format
POST https://{Endpoint}/v3/{project_id}/instances/{instance_id}/slowlog-download
- Parameter description

Table 5-135 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the instance ID, which can be obtained by calling the API for querying instances. If you do not have an instance, you can call the API used for creating an instance.

Requests

- Parameter description

Name	Mandatory	Type	Description
file_name_list	No	Array of strings	Specifies the list of the names of the files to be downloaded.
node_id_list	No	Array of strings	Specifies the node ID list. If this parameter is left blank, all nodes in the instance can be queried. For details, see the id value in the nodes data structure table in section "Querying Instances" in the <i>DDS API Reference</i>. Nodes that can be queried: - Shard nodes in a cluster. - All nodes in a replica set or single node instance.

- Request example

```
{
  "file_name_list":
    ["0541c9f81e80d2201fcc00b92ad6ec0_052f8a12dfed43fbb27c2020e3c3c507no02_slowlog_20201117104809"],
  "node_id_list":["052f8a12dfed43fbb27c2020e3c3c507no02"]
}
```

Responses

- Parameter description

Table 5-136 Parameter description

Name	Type	Description
list	List	Indicates the download links of slow query logs. For details, see Table 5-137 .
status	String	Indicates the status of links for downloading slow query logs. • FINISH: The download link has been generated. • CREATING: A file is being generated and the download link is to be prepared. • FAILED: Log files fail to be prepared.
count	Integer	Indicates the number of links for downloading slow query logs.

Table 5-137 list field data structure description

Name	Type	Description
node_name	String	Indicates the node name.
file_name	String	Indicates the name of the generated file for downloading slow query logs.
status	String	Indicates the status of the current link. • SUCCESS: The download link has been generated. • EXPORTING: A file is being generated and the download link is to be prepared. • FAILED: Log files fail to be prepared.
file_size	String	Indicates the file size in KB.
file_link	String	Indicates the download link. NOTE The download link is valid within 15 minutes after being updated. After the update time expires, the download link will be obtained again.

Name	Type	Description
update_at	Long	Indicates the update time.

- Response example

```
{
  "list": [
    {
      "file_name": "node_1",
      "file_name":
"054bc9c1f680d55c1f36c006e5a9f67b_slowlog_download_20200515080614589",
      "status": "SUCCESS",
      "file_size": "0",
      "file_link": "https://
rdsbucket.opxxx.svc.rds.xxxxx.cnxianhz1.ur.obs.xxx.com:443/054bc9c1f680d55c1f36c006e5a9
f67b_slowlog_download_20200515080614589?
AWSAccessKeyId=1BQ38TBCQHAVQXBUMUTC&Expires=1589530200&response-cache-
control=no-cache%2Cno-store&Signature=Fgi4%2BLOJ9frAXyOkz5hRoW5O%2BUM%3D",
      "updated_at ": 1589529991385
    }
  ],
  "status": "FINISH",
  "count": 1
}
```

5.9.3 Showing Original Slow Logs

Function

This API is used to configure Show Original Log.

Constraints

Abnormal instances do not support this operation.

URI

- URI format
PUT https://{Endpoint}/v3/{project_id}/instances/{instance_id}/slowlog-desensitization/{status}
- Parameter description

Table 5-138 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region.
instance_id	Yes	Instance ID, which can be obtained by calling the API for querying instances. If you do not have an instance, you can call the API used for creating an instance.

Name	Mandatory	Description
status	Yes	Enabling or disabling Slow Original Log. The value can be on or off .

Requests

None

Responses

Response example

```
{}
```

5.9.4 Querying Database Error Logs

Function

This API is used to query database error logs.

Constraints

A maximum of 2000 records can be queried within the period specified by **start_date** and **end_date**.

URI

- URI format
GET https://{Endpoint}/v3/{project_id}/instances/{instance_id}/errorlog
- Parameter description

Table 5-139 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the instance ID, which can be obtained by calling the API for querying instances. If you do not have an instance, you can call the API used for creating an instance.
start_date	Yes	Specifies the start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. CAUTION The start time is 31 days earlier than the current time.

Name	Mandatory	Description
end_date	Yes	Specifies the end time in the "yyyy-mm-ddThh:mm:ssZ" format. • T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. • Only error logs generated within the last month can be queried. NOTE The end time cannot be later than the current time.
node_id	No	Specifies the node ID. For details, see Table 5-34. If this parameter is left blank, all nodes in the instance can be queried. Nodes that can be queried: • mongos, shard, and config nodes in a cluster instance. • All nodes in a replica set or single node instance.
type	No	Specifies the statement type. If it is left blank, all statement types are queried. Valid value: • WARNING • ERROR
offset	No	Specifies the index position. Its value range is [0, 1999]. If offset is set to <i>N</i>, the resource query starts from the <i>N</i>+1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.
limit	No	Specifies the number of resources to be queried. The value ranges from 1 to 100. The default value is 10, indicating that 10 records are returned by default. NOTE The sum of limit and offset values must be less than or equal to 2000.

Requests

None

Responses

- Parameter description

Table 5-140 Parameter description

Name	Type	Description
error_log_list	Array of objects	Indicates detailed information. For details, see Table 5-141 .
total_record	Integer	Indicates the total number of records.

Table 5-141 error_log_list field data structure description

Name	Type	Description
node_name	String	Indicates the node name.
level	String	Indicates the log level.
time	String	Indicates the time in the UTC format.
content	String	Indicates the log content.

- Response example

```
{
  "error_log_list": [
    {
      "node_name": "Test_replica_node_2",
      "level": "WARNING",
      "time": "2020-12-15T08:53:01.868+0000",
      "content": "W NETWORK [LogicalSessionCacheReap] Unable to reach primary for set replica"
    }
  ],
  "total_record": 1
}
```

5.9.5 Obtaining Links for Downloading Error Logs

Function

This API is used to obtain the download link of error logs.

Constraints

The link for downloading error logs is valid within 15 minutes after being updated.

URI

- URI format
POST https://{Endpoint}/v3/{project_id}/instances/{instance_id}/errorlog-download
- Parameter description

Table 5-142 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the instance ID, which can be obtained by calling the API for querying instances. If you do not have an instance, you can call the API used for creating an instance.

Requests

- Parameter description

Name	Mandatory	Type	Description
file_name_list	No	Array of strings	Specifies the list of the names of the files to be downloaded.
node_id_list	No	Array of strings	Specifies the node ID list. If this parameter is left blank, all nodes in the instance can be queried. For details, see the id value in the nodes data structure table in section "Querying Instances" in the <i>DDS API Reference</i>. Nodes that can be queried: • mongos, shard, and config nodes in a cluster. • All nodes in a replica set or single node instance.

- Response to the request body

```
{
  "file_name_list": [
    "0541c9f81e80d2201fccc00b92ad6ec0_052f8a12dfed43fbb27c2020e3c3c507no02_errorlog_20201117104809"
  ],
  "node_id_list": [
    "052f8a12dfed43fbb27c2020e3c3c507no02"
  ]
}
```

Responses

- Parameter description

Table 5-143 Parameter description

Name	Type	Description
list	List	Indicates the list of error log download links. For details, see Table 5-144 .
status	String	Indicates the status of the error log download link. • FINISH: The download link has been generated. • CREATING: A file is being generated and the download link is to be prepared. • FAILED: Log files fail to be prepared.
count	Integer	Indicates the number of error log links.

Table 5-144 list field data structure description

Name	Type	Description
node_name	String	Indicates the node name.
file_name	String	Indicates the name of the generated file for downloading error logs.
status	String	Indicates the status of the current link. • SUCCESS: The download link has been generated. • EXPORTING: A file is being generated and the download link is to be prepared. • FAILED: Log files fail to be prepared.
file_size	String	Indicates the file size in KB.

Name	Type	Description
file_link	String	Indicates the download link. NOTE The download link is valid within 15 minutes after being updated. After the update time expires, the download link will be obtained again.
update_at	Long	Indicates the update time.

- Response example

```
{
  "list": [
    {
      "file_name": "node_1",
      "file_name":
"054bc9c1f680d55c1f36c006e5a9f67b_errorlog_download_20200515080614589",
      "status": "SUCCESS",
      "file_size": "0",
      "file_link": "https://
rdsbucket.opxxx.svc.rds.xxxxx.cnxianhz1.ur.obs.xxx.com:443/054bc9c1f680d55c1f36c006e5a9
f67b_errorlog_download_20200515080614589?
AWSAccessKeyId=1BQ38TBCQHAVQXBUMUTC&Expires=1589530200&response-cache-
control=no-cache%2Cno-store&Signature=Fgi4%2BLOJ9frAXyOkz5hRoW5O%2BUM%3D",
      "updated_at ": 1589529991385
    }
  ],
  "status": "FINISH",
  "count": 1
}
```

5.9.6 Setting SQL Audit

Function

This API is used to set a policy for SQL audit logs.

URI

- URI format
POST https://{Endpoint}/v3/{project_id}/instances/{instance_id}/auditlog-policy
- Parameter description

Table 5-145 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.

Name	Mandatory	Description
instance_id	Yes	Specifies the instance ID, which can be obtained by calling the API for querying instances. If you do not have an instance, you can call the API used for creating an instance.

Requests

- Parameter description

Table 5-146 Parameter description

Name	Mandatory	Type	Description
keep_days	Yes	Integer	Specifies the number of days for storing audit logs. The value can be 0 or ranges from 7 to 732. • 0: indicates that SQL audit is disabled. • 7 to 732: indicates the retention days for audit logs after SQL audit is enabled.
reserve_auditlogs	No	String	This parameter is valid only when SQL audit is disabled. • true (default value): indicates that historical audit logs are retained when SQL audit is disabled. • false: indicates that existing historical audit logs are deleted when SQL audit is disabled.

Name	Mandatory	Type	Description
audit_scope	No	String	This parameter is valid only when the audit log policy is enabled. If this parameter is left blank, all audit log policies are enabled by default. Specifies the audit scope. Enter the database or collection name. Use commas (,) to separate multiple databases or collections. If the name contains a comma (,), add a dollar sign (\$) before the comma to distinguish it from the separators.
audit_types	No	Array of strings	This parameter is valid only when the audit log policy is enabled. If this parameter is left blank, all audit log policies are enabled by default. Specifies the audit type. The value is insert , delete , update , or query .

- Request example
 - Enabling or updating the audit log policy

```
{
  "keep_days": 7,
  "audit_scope": "all",
  "audit_types": [
    "insert"
  ]
}
```

- Disabling the policy for SQL audit logs:

```
{
  "keep_days": 0,
  "reserve_auditlogs": false
}
```

Responses

Response example

```
{}
```

5.9.7 Querying SQL Audit Policy

Function

This API is used to query the policy for SQL audit logs.

URI

- URI format
GET https://{Endpoint}/v3/{project_id}/instances/{instance_id}/auditlog-policy
- Parameter description

Table 5-147 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the instance ID, which can be obtained by calling the API for querying instances. If you do not have an instance, you can call the API used for creating an instance.

Requests

None

Responses

- Parameter description

Table 5-148 Parameter description

Name	Type	Description
keep_days	Integer	Indicates the number of days for storing audit logs. The value is 0 when SQL audit is disabled.
audit_scope	String	Indicates the audit scope.
audit_types	Array of strings	Indicates the audit type.

- Response example

```
{
  "keep_days":7,
  "audit_scope":"all",
  "audit_types":["insert"]
}
```

5.9.8 Obtaining the Audit Log List

Function

This API is used to obtain an audit log list.

URI

- URI format
GET https://{Endpoint}/v3/{project_id}/instances/{instance_id}/auditlog?
start_time={start_time}&end_time={end_time}&offset={offset}&limit={limit}
- Parameter description

Table 5-149 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the instance ID, which can be obtained by calling the API for querying instances. If you do not have an instance, you can call the API used for creating an instance.
node_id	No	Specifies the ID of the node whose audit logs are to be queried. If this parameter is not transferred, the audit logs of all nodes are queried by default. The audit logs of cluster instances are distributed on mongos nodes.
start_time	Yes	Specifies the start time. The format of the start time is "yyyy-mm-ddThh:mm:ssZ". T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset.
end_time	Yes	Specifies the end time. The format of the end time is "yyyy-mm-ddThh:mm:ssZ" and the end time must be later than the start time. The time span cannot be longer than 30 days. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset.
offset	No	Specifies the index position. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.

Name	Mandatory	Description
limit	No	Specifies the number of records to be queried. - The value ranges from 1 to 100. - If this parameter is not transferred, the first 100 DB instances are queried by default.

Requests

None

Responses

- Parameter description

Table 5-150 Parameter description

Name	Type	Description
audit_logs	Array of objects	Indicates the audit log details. For details about audit logs, see Table 5-151 .
total_record	Integer	Indicates the total number of records.

Table 5-151 audit_logs parameters

Name	Type	Description
node_id	String	Indicates the node ID.
id	String	Indicates the audit log ID.
name	String	Indicates the audit log file name.
size	Long	Indicates the size of the audit log in byte.
start_time	String	Indicates the start time of the audit log. The format is "yyyy-mm-ddThh:mm:ssZ". T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset.

Name	Type	Description
end_time	String	Indicates the end time of the audit log. The format is "yyyy-mm-ddThh:mm:ssZ". T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset.

- Response example

```
{
  "audit_logs": [
    {
      "id": "10190012aae94b38a10269b8ad025fc1no02_1607681849871",
      "name":
"0a84b6e97780d3271fd0c00f2db42932_audit_log_65d3fe0c50984b35bc1a36e9b7c7de98in0
2_10190012aae94b38a10269b8ad025fc1no02_1607681849871",
      "size": 24735174,
      "node_id": "10190012aae94b38a10269b8ad025fc1no02",
      "start_time": "2020-12-11T18:14:49+0800",
      "end_time": "2020-12-11T18:17:25+0800"
    }
  ],
  "total_record": 1
}
```

5.9.9 Obtaining Links for Downloading Audit Logs

Function

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

URI

- URI format
POST https://{Endpoint}/v3/{project_id}/instances/{instance_id}/auditlog-links
- Parameter description

Table 5-152 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the instance ID, which can be obtained by calling the API for querying instances. If you do not have an instance, you can call the API used for creating an instance.

Requests

- Parameter description

Table 5-153 Parameter description

Name	Mandatory	Type	Description
ids	Yes	Array of strings	Specifies the list of audit logs. A maximum of 50 audit log IDs are allowed in the list.

- Request example

```
{
  "ids": ["10190012aae94b38a10269b8ad025fc1no02_1607681849871",
    "12390012aae94b38a10269b8ad025fc1no02_1607681849871"]
}
```

Responses

- Parameter description

Table 5-154 Parameter description

Name	Type	Description
links	Array of strings	Indicates the list of audit log download links. The validity period is 5 minutes.

- Response example

```
{
  "links": ["https://obs.domainname.com/ddsbucket.username.1/xxxxxx", "https://obs.domainname.com/ddsbucket.username.2/xxxxxx"]
}
```

5.10 Tag Management

5.10.1 Querying Resources by Tag

Function

This API is used to query the specified DB instances by tag.

Restrictions

A maximum of 10 tags can be added to a DB instance. The tag key must be unique.

URI

- URI format
POST /v3/{project_id}/instances/action
- Parameter description

Table 5-155 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.

Requests

- Parameter description

Table 5-156 Parameter description

Name	Mandatory	Type	Description
offset	No	String	Specifies the index position. The query starts from the next piece of data indexed by this parameter. • If action is set to count, this parameter is not transferred. • If action is set to filter, this parameter must be a positive integer. The default value is 0, indicating that the query starts from the first piece of data.
limit	No	String	Specifies the number of resources to be queried. • If action is set to count, this parameter is not transferred. • If action is set to filter, the value range is from 1 to 100. If this parameter is not transferred, the first 100 DB instances are queried by default.

Name	Mandatory	Type	Description
action	Yes	String	Specifies the operation identifier. • If action is set to filter, instances are queried by tag filtering criteria. • If action is set to count, only the total number of records is returned.
matches	No	Array of objects	Specifies the search field. • If the value is left blank, the query is not based on the instance name or instance ID. • If the value is not empty, see Table 5-158.
tags	No	Array of objects	Specifies the included tags. Each tag contains a maximum of 10 keys. For more information, see Table 5-157.

Table 5-157 tags field data structure description

Name	Mandatory	Type	Description
key	Yes	String	Specifies the tag key. It contains a maximum of 36 Unicode characters. key cannot be empty, an empty string, or spaces. Before using key, delete spaces before and after the value. NOTE The character set of this parameter is not verified in the search process.

Name	Mandatory	Type	Description
values	Yes	Array of strings	Lists the tag values. Each value contains a maximum of 43 Unicode characters and cannot contain spaces. Before using values , delete spaces before and after the value. If the values are null, it indicates querying any value. The values are in OR relationship.

Table 5-158 matches field description

Name	Mandatory	Type	Description
key	Yes	String	Specifies the query criteria. The value can be instance_name or instance_id , indicating that the query is based on the instance name or instance ID.
value	Yes	String	Specifies the name or ID of the DB instance to be matched.

- Request header
POST *https://DDS endpoint/v3/{project_id}/instances/action*
- Example request

Query specified DB instances by tag.

```
{
  "offset": "100",
  "limit": "100",
  "action": "filter",
  "matches": [
    {
      "key": "instance_name",
      "value": "test-single"
    }
  ],
  "tags": [
    {
      "key": "key1",
      "values": [
        "value1",
        "value2"
      ]
    }
  ]
}
```

Query the total number of resources.

```
{
  "action": "count",
  "tags": [
    {
      "key": "key1",
      "values": [
        "value1",
        "value2"
      ]
    },
    {
      "key": "key2",
      "values": [
        "value1",
        "value2"
      ]
    }
  ],
  "matches": [
    {
      "key": "instance_name",
      "value": "test-single"
    },
    {
      "key": "instance_id",
      "value": "958693039f284d6ebfb177375711072ein02"
    }
  ]
}
```

Responses

- Parameter description

Table 5-159 Parameter description

Name	Type	Description
instances	Array of objects	Indicates the instance list.
total_count	Integer	Indicates the total number of queried records.

Table 5-160 instance field data structure description

Name	Type	Description
instance_id	String	Indicates the DB instance ID.
instance_name	String	Indicates the DB instance name.
tags	Array of objects	Indicates the tag list. If there is no tag in the list, tags is taken as an empty array. For more information, see Table 5-161 .

Table 5-161 tags field data structure description

Name	Type	Description
key	String	Indicates the tag key. The value contains 36 Unicode characters and cannot be blank. Character set: 0-9, A-Z, a-z, "_", "-", and "@".
value	String	Indicates the tag value. The value contains a maximum of 43 Unicode characters and can also be an empty string. Character set: 0-9, A-Z, a-z, "_", ".", "-", and "@".

- Response example

Return specified DB instances by tag.

```
{
  "instances": [
    {
      "instance_id": "2acbf2223caf3bac3c33c6153423c3ccin02",
      "instance_name": "test-single",
      "tags": [
        {
          "key": "key1",
          "value": "value1"
        },
        {
          "key": "key2",
          "value": "value1"
        }
      ]
    }
  ]
}
```

Number of returned records.

```
{
  "total_count": 4
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.10.2 Adding or Deleting Resource Tags in Batches

Function

This API is used to add or delete tags of the specified instance in batches.

Restrictions

- A maximum of 10 tags can be added to a DB instance. The tag key must be unique.
 - If the request body contains duplicated keys, an error message will be reported when the API is called.
 - If the key in the request body is the same as an existing key in the specified instance, the value of the **value** parameter that corresponds to the existing key is overwritten.
- If tags to be deleted do not exist, the operation is considered to be successful by default. The character set of the tags will not be checked. The tag structure in the request body cannot be missing, and the key cannot be left blank or an empty string.

URI

- URI format
POST /v3/{project_id}/instances/{instance_id}/tags/action
- Parameter description

Table 5-162 Parameter description

Name	Mandator y	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the DB instance ID.

Requests

- Parameter description

Table 5-163 Parameter description

Name	Mandatory	Type	Description
action	Yes	String	Specifies the operation identifier. Valid value: • create: indicates to add tags. • delete: indicates to delete tags.
tags	Yes	Array of objects	Specifies the tag list. For more information, see Table 5-164 . NOTE When you delete tags, do not check the character set of this parameter.

Table 5-164 tags field data structure description

Name	Mandatory	Type	Description
key	Yes	String	Specifies the tag key. It contains a maximum of 36 Unicode characters. It cannot be null or an empty string or contain spaces. Before verifying and using key , spaces are automatically filtered out. Character set: 0-9, A-Z, a-z, "_", "-", and "@".

Name	Mandatory	Type	Description
value	No	String	Specifies the tag value. It contains a maximum of 43 Unicode characters, can be an empty string, and cannot contain spaces. Before verifying or using value, spaces are automatically filtered out. Character set: 0-9, A-Z, a-z, "_", ".", "-", and "@". • If action is set to create, this parameter is mandatory. • If action is set to delete, this parameter is optional. NOTE If value is specified, tags are deleted by key and value. If value is not specified, tags are deleted by key.

- Request header
POST *https://DDS endpoint/v3/{project_id}/instances/{instance_id}/tags/action*

- Example request

Add tags.

```
{
  "action": "create",
  "tags": [
    {
      "key": "key1",
      "value": "value1"
    },
    {
      "key": "key",
      "value": "value3"
    }
  ]
}
```

Delete tags.

```
{
  "action": "delete",
  "tags": [
    {
      "key": "key1"
    },
    {
      "key": "key2",
      "value": "value3"
    }
  ]
}
```

Responses

```
{}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.10.3 Querying Resource Tags

Function

This API is used to query tags of a specified resource.

Restrictions

A maximum of 10 tags can be added to a DB instance. The tag key must be unique.

URI

- URI format
GET /v3/{project_id}/instances/{instance_id}/tags
- Parameter description

Table 5-165 Parameter description

Name	Mandator y	Description
project_id	Yes	Specifies the project ID of a tenant in a region.
instance_id	Yes	Specifies the DB instance ID.

Requests

- Request header
GET *https://DDS endpoint/v3/{project_id}/instances/{instance_id}/tags*
- Request body
N/A

Responses

- Parameter description

Table 5-166 Parameter description

Name	Mandatory	Type	Description
tags	Yes	Array of objects	Indicates the tag list. For more information, see Table 5-167 .

Table 5-167 tags field data structure description

Name	Mandatory	Type	Description
key	Yes	String	Indicates the tag key. The value contains 36 Unicode characters and cannot be blank. Character set: 0-9, A-Z, a-z, "_", "-", and "@".
value	Yes	String	Indicates the tag value. The value contains a maximum of 43 Unicode characters and can also be an empty string. Character set: 0-9, A-Z, a-z, "_", ".", "-", and "@".

- Response example

```
{
  "tags": [
    {
      "key": "key1",
      "value": "value1"
    },
    {
      "key": "key2",
      "value": "value2"
    }
  ]
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.10.4 Querying Tags in a Specified Project

Function

This API is used to query all tags of instances in a specified project.

URI

- URI format
GET /v3/{project_id}/tags
- Parameter description

Table 5-168 Parameter description

Name	Mandatory	Description
project_id	Yes	Specifies the project ID of a tenant in a region.

Requests

- Request header
GET *https://DDS endpoint/v3/{project_id}/tags*
- Request body
N/A

Responses

- Parameter description

Table 5-169 Parameter description

Name	Mandatory	Type	Description
tags	Yes	Array of objects	Indicates the tag list. For more information, see Table 5-170 .

Table 5-170 tags field data structure description

Name	Mandatory	Type	Description
key	Yes	String	Indicates the tag key. The value contains 36 Unicode characters and cannot be blank. Character set: 0-9, A-Z, a-z, "_", "-", and "@".

Name	Mandatory	Type	Description
values	Yes	Array of strings	Lists the tag values. The value contains a maximum of 43 Unicode characters and can also be an empty string. Character set: 0-9, A-Z, a-z, "_", ":", "-", and "@".

- Response example

```
{
  "tags": [
    {
      "key": "key1",
      "values": [
        "value1",
        "value2"
      ]
    },
    {
      "key": "key2",
      "values": [
        "value1",
        "value2"
      ]
    }
  ]
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.11 Managing Databases and Users

5.11.1 Creating a Database User

Description

This API is used to create a database user for a specified instance.

Restrictions

- This API applies only to DDS Community Edition.
- This operation is not allowed if the DB instance is in any of the following statuses: creating, changing instance class, changing port, frozen, restarting, or abnormal.

URI

- URI format
POST `https://{Endpoint}/v3/{project_id}/instances/{instance_id}/db-user`

Table 5-171 Request parameters

Name	Type	IN	Mandatory	Description
x-auth-token	string	header	Yes	User token
project_id	string	path	Yes	Project ID of a tenant in a region.
instance_id	string	path	Yes	Instance ID.

Requests

- Parameter description

Table 5-172 Parameter description

Name	Type	Mandatory	Description
user_name	String	Yes	The database username. - The value must be 1 to 64 characters and can contain only letters (from A to Z or from a to z), digits (from 0 to 9), hyphens (-), and periods (.). - The username cannot be an internal reserved username, such as <code>drsFull</code> or <code>drsIncremental</code>.
user_pwd	String	Yes	The password of the database user. - The value must be 8 to 32 characters in length and contain uppercase letters (A to Z), lowercase letters (a to z), digits (0 to 9), and special characters, such as <code>~!@#%^*-_+=?</code> - Enter a strong password to improve security, preventing security risks such as brute force cracking.

Name	Type	Mandatory	Description
roles	Array of Object	Yes	The role of the database user. For details, see Table 5-173 . roles restricts the permissions of the account. If an empty array is specified, the account does not have any permission.
db_name	String	No	The database where the new user is located. The default value is "admin" . The value must be 1 to 64 characters and can contain only letters (from A to Z or from a to z), digits (from 0 to 9), and underscores (_).

Table 5-173 roles field data structure description

Name	Type	Mandatory	Description
role_db_name	String	Yes	The name of the database to which the role granted to the new user belongs. The value must be 1 to 64 characters and can contain only letters (from A to Z or from a to z), digits (from 0 to 9), and underscores (_).
role_name	String	Yes	The name of the role granted to the new user. The value must be 1 to 64 characters and can contain only letters (from A to Z or from a to z), digits (from 0 to 9), hyphens (-), and periods (.).

Example Request

Creating a user **testDb** for DB instance **test**

```
{
  "user_name": "test",
  "user_pwd": "*****",
  "roles": [{
    "role_db_name": "testDb",
    "role_name": "testRole"
  }],
}
```

```
"db_name": "test_db"
}
```

Responses

- Response example

```
{}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.11.2 Creating a Database Role

Description

This API is used to create a database role for a specified instance.

Restrictions

- This API applies only to DDS Community Edition.
- This operation is not allowed if the DB instance is in any of the following statuses: creating, changing instance class, changing port, frozen, restarting, or abnormal.

URI

- URI format
POST https://{Endpoint}/v3/{project_id}/instances/{instance_id}/db-role

Table 5-174 Request parameters

Name	Type	IN	Man dator y	Description
x-auth-token	string	head er	Yes	User token
project_id	string	path	Yes	Project ID of a tenant in a region.
instance_id	string	path	Yes	Instance ID.

Requests

- Parameter description

Table 5-175 Parameter description

Name	Type	Mandatory	Description
role_name	String	Yes	The name of the role to be created. The value must be 1 to 64 characters and can contain only letters (from A to Z or from a to z), digits (from 0 to 9), hyphens (-), and periods (.).
roles	Array of objects	No	The list of roles inherited by the new role. For details, see Table 5-176 .
db_name	String	No	The name of the database to which the role belongs. The default value is admin . The value must be 1 to 64 characters and can contain only letters (from A to Z or from a to z), digits (from 0 to 9), and underscores (_).

Table 5-176 roles field data structure description

Name	Type	Mandatory	Description
role_db_name	String	Yes	The name of the database to which an inherited role belongs. The value must be 1 to 64 characters and can contain only letters (from A to Z or from a to z), digits (from 0 to 9), and underscores (_).
role_name	String	Yes	The name of an inherited role. The value must be 1 to 64 characters and can contain only letters (from A to Z or from a to z), digits (from 0 to 9), hyphens (-), and periods (.).

Example Request

Creating a database role **testRole** for a specified instance

```
{  
  "role_name": "testRole",
```

```
"roles" : [{  
  "role_name":"readWrite",  
  "role_db_name":"testDb"  
}],  
"db_name":"testDb"
```

Responses

- Response example

```
{}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.11.3 Querying Details About Database Users

Description

This API is used to query details about database users.

Restrictions

- This API applies only to DDS Community Edition.
- This operation is not allowed if the DB instance is in any of the following statuses: creating, changing instance class, changing port, restarting, or abnormal.

URI

- URI format
GET https://{Endpoint}/v3/{project_id}/instances/{instance_id}/db-user/detail?offset={offset}&limit={limit}&user_name={user_name }&db_name={db_name}

Table 5-177 Parameter description

Name	Type	Man dato ry	Description
x-auth-token	String	Yes	User token
project_id	String	Yes	The project ID of a tenant in a region.
instance_id	String	Yes	The instance ID, which can be obtained by calling the API for querying instances. If you do not have an instance, you can call the API used for creating an instance.

Name	Type	Mandatory	Description
user_name	String	No	The username. The value must be 1 to 64 characters and can contain only letters (from A to Z or from a to z), digits (from 0 to 9), hyphens (-), and periods (.).
db_name	String	No	The name of the database where the user is located. The default value is "admin" . The value must be 1 to 64 characters and can contain only letters (from A to Z or from a to z), digits (from 0 to 9), and underscores (_).
offset	Integer	No	The index position. The value must be greater than or equal to 0 . If this parameter is not transferred, the value is 0 by default.
limit	Integer	No	The upper limit of the number of queried records. The value ranges from 1 to 100. If this parameter is not transferred, the first 100 DB instances are queried by default.

Requests

None

Responses

- Parameter description

Table 5-178 Parameter description

Name	Type	Mandatory	Description
users	String	Yes	The information about database users. CAUTION The return value is in the native format of the database and needs to be parsed by the user.
total_count	Integer	Yes	The total number of database users.

- Response example

```
{
  "total_count": 1,
  "users": "[{"inheritedPrivileges":[{"resource":{"collection":"temproles","db":"admin"},"actions":["find"]}], "roles":[{"role":"root","db":"admin"}], "inheritedRoles":[{"role":"root","db":"admin"}], "_id":"admin.rwuser","user":"rwuser","db":"admin"}]"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.11.4 Querying the Database Role List

Description

This API is used to query the database role list.

Restrictions

- This API applies only to DDS Community Edition.
- This operation is not allowed if the DB instance is in any of the following statuses: creating, changing instance class, changing port, restarting, or abnormal.

URI

- URI format

GET https://{Endpoint}/v3/{project_id}/instances/{instance_id}/db-roles?
role_name={role_name}&db_name={db_name}&offset={offset}&limit={limit}

Table 5-179 Parameter description

Name	Type	Mandatory	Description
x-auth-token	String	Yes	User token.
project_id	String	Yes	The project ID of a tenant in a region.
instance_id	String	Yes	The instance ID, which can be obtained by calling the API for querying instances. If you do not have an instance, you can call the API used for creating an instance.

Name	Type	Mandatory	Description
role_name	String	No	The role name. The value must be 1 to 64 characters and can contain only letters (from A to Z or from a to z), digits (from 0 to 9), hyphens (-), and periods (.).
db_name	String	No	The database name. The default value is "admin" . The value must be 1 to 64 characters and can contain only letters (from A to Z or from a to z), digits (from 0 to 9), and underscores (_).
offset	Integer	No	The index position. The value must be greater than or equal to 0 . If this parameter is not transferred, the value is 0 by default.
limit	Integer	No	The upper limit of the number of queried records. The value ranges from 1 to 100. If this parameter is not transferred, the first 100 DB instances are queried by default.

Requests

None

Responses

- Parameter description

Table 5-180 Parameter description

Name	Type	Mandatory	Description
roles	String	Yes	The database role information. CAUTION The return value is in the native format of the database and needs to be parsed by the user.
total_count	Integer	Yes	The total number of database roles.

- Response example

```
{
  "total_count": 1,
  "roles": "[{"privileges":[{"resource":{"collection":"","db":"admin"},"actions":
```

```
[{"viewUser": true}, {"inheritedPrivileges": [{"resource": {"collection": "", "db": "admin"}, "actions": [{"viewUser": true}], "role": "userAdmin", "roles": [], "inheritedRoles": [], "isBuiltin": true, "db": "admin"}]}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.11.5 Changing the Password of a Database User

Description

This API is used to change the password of a database user

Restrictions

This operation cannot be performed on frozen or abnormal instances.

URI

- URI format
PUT https://{Endpoint}/v3/{project_id}/instances/{instance_id}/reset-password

Table 5-181 Request parameters

Name	Type	IN	Man dator y	Description
x-auth-token	string	head er	Yes	User token
project_id	string	path	Yes	Project ID of a tenant in a region.
instance_id	string	path	Yes	Instance ID.

Requests

- Parameter description

Table 5-182 Parameter description

Name	Type	Mandatory	Description
user_name	String	No	The database username. • The default value is rwuser. Users sharduser and csuser are also supported. • The value must be 1 to 64 characters in length and can contain only letters (from A to Z or from a to z), digits (from 0 to 9), hyphens (-), underscores (_), and periods (.).
user_pwd	String	Yes	The database password. • The value must be 8 to 32 characters in length and contain uppercase letters (A to Z), lowercase letters (a to z), digits (0 to 9), and special characters, such as ~!@#%^*_-=+? • Enter a strong password to improve security, preventing security risks such as brute force cracking.
db_name	String	No	The database name. The default value is admin .

Example Request

Changing the password of a database user

```
{
  "user_name": "rwuser",
  "user_pwd": "*****"
}
```

Responses

- Response example
{ }

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.11.6 Checking the Password for Logging In to a Database

Description

This API is used to check the password for logging in to a database.

Restrictions

This operation cannot be performed on frozen or abnormal instances.

URI

- URI format
POST `https://{Endpoint}/v3/{project_id}/instances/{instance_id}/check-password`

Table 5-183 Request parameters

Name	Type	IN	Mandatory	Description
x-auth-token	string	header	Yes	User token
project_id	string	path	Yes	Project ID of a tenant in a region.
instance_id	string	path	Yes	Instance ID.

Requests

- Parameter description

Table 5-184 Parameter description

Name	Type	Mandatory	Description
user_name	String	No	The database username. The default value is " rwuser ". The value must be 1 to 64 characters and can contain only letters (from A to Z or from a to z), digits (from 0 to 9), hyphens (-), and periods (.).

Name	Type	Mandatory	Description
user_pwd	String	Yes	The database password. The value must be 8 to 32 characters in length and contain uppercase letters (A to Z), lowercase letters (a to z), digits (0 to 9), and special characters, such as ~!@#%^*_-=+?
db_name	String	No	The database name. The default value is "admin" .

Example Request

Checking the password for logging in to a database

```
{
  "user_name": "rwuser",
  "user_pwd": "*****"
}
```

Responses

- Response example

```
{}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.11.7 Querying Cluster Balancing Settings

Description

This API is used to query the data balancing settings of a DDS cluster, including whether balancing is enabled and the time window of balancing activities. The balancing activity time window information is returned only in DDS 4.0 and later versions.

Restrictions

Frozen instances do not support this operation.

URI

- URI format
GET https://{Endpoint}/v3/{project_id}/instances/{instance_id}/balancer

Requests

Parameter description

Table 5-185 Request parameters

Name	Type	IN	Mandatory	Description
x-auth-token	string	header	Yes	User token
project_id	string	path	Yes	Project ID of a tenant in a region.
instance_id	string	path	Yes	Instance ID.

Responses

- Parameter description

Table 5-186 Response to the request for querying the balancing settings of a cluster

Name	Type	Mandatory	Description
is_open	Boolean	Yes	Whether cluster balancing is enabled.
active_window	Object	No	The activity time window. For details, see Table 5-187 .

Table 5-187 Activity time window response message

Name	Type	Mandatory	Description
start_time	String	No	The start time of the activity time window.
stop_time	String	No	The end time of the activity time window.

- Response example

```
{
  "is_open": true,
  "active_window": {
    "start_time": "00:00",
    "stop_time": "02:00"
  }
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.11.8 Enabling or Disabling Cluster Balancing

Description

This API is used to enable or disable cluster balancing.

Restrictions

Frozen instances do not support this operation.

URI

- URI format
PUT https://{Endpoint}/v3/{project_id}/instances/{instance_id}/balancer/{action}

Requests

Parameter description

Table 5-188 Request parameters

Name	Type	IN	Man dator y	Description
x-auth-token	string	head er	Yes	User token
project_id	string	path	Yes	The project ID of a tenant in a region.
instance_id	string	path	Yes	Instance ID.
action	string	path	Yes	Enable or disable cluster balancer

Responses

- Parameter description

Table 5-189 Parameter description

Name	Type	Mandatory	Description
job_id	String	Yes	The workflow ID.

- Response example

```
{
  "job_id": "3711e2ad-5787-49bc-a47f-3f0b066af9f5"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

5.11.9 Setting the Activity Time Window for Cluster Balancing

Description

This API is used to set the activity time window for DDS cluster balancing.

Restrictions

- Frozen instances do not support this operation.
- DDS 4.0 and later DB instances do not support this operation.

URI

- URI format
PUT https://{Endpoint}/v3/{project_id}/instances/{instance_id}/balancer/
active-window

Table 5-190 Request parameters

Name	Type	IN	Mandatory	Description
x-auth-token	string	header	Yes	User token
project_id	string	path	Yes	Project ID of a tenant in a region.
instance_id	string	path	Yes	Instance ID.

Requests

- Parameter description

Table 5-191 Parameter description

Name	Type	Mandatory	Description
start_time	String	No	The start time of the balancing activity time window. The format is HH:MM. If start_time is set, stop_time must be set. If neither of them is set, the setting of time window is canceled.
stop_time	String	No	The end time of the balancing activity time window. The format is HH:MM. If stop_time is set, start_time must be set. If neither of them is set, the setting of time window is canceled.

Request example

- Setting the activity time window

```
{
  "start_time": "00:00",
  "stop_time": "02:00"
}
```
- Canceling the activity time window setting

```
{
}
```

Responses

- Parameter description

Table 5-192 Parameter description

Name	Type	Mandatory	Description
job_id	String	Yes	The workflow ID.

- Response example

```
{
  "job_id": "3711e2ad-5787-49bc-a47f-3f0b066af9f5"
}
```

Status Code

For more information, see [Status Code](#).

Error Code

For more information, see [Error Code](#).

6 Permissions Policies and Supported Actions

6.1 Introduction

This chapter describes fine-grained permissions management for your DDS. If your account does not need individual IAM users, then you may skip over this chapter.

By default, new IAM users do not have any permissions granted. You need to add a user to one or more groups, and assign policies or roles 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 the service based on the permissions.

You can grant users permissions based on roles and policies. Roles: A coarse-grained authorization mechanism provided by IAM to define permissions based on users' job 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

If you want to allow or deny the access to an API, fine-grained authorization is a good choice.

An account has all the permissions required to call all APIs, but 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 who have been granted permissions allowing the actions can call the API successfully. For example, if an IAM user queries DDS DB instances using an API, the user must have been granted permissions that allow the **dds:instance:list** action.

Supported Actions

DDS provides system-defined policies that can be directly used in IAM. You can also create custom policies and use them to supplement system-defined policies, implementing more refined access control. Actions supported by policies are specific to APIs. The following are common concepts related to policies:

- **Permission:** A statement in a policy that allows or denies certain operations.
- **APIs:** REST APIs that can be called in a custom policy
- **Actions:** Added to a custom policy to control permissions for specific operations
- **IAM projects or enterprise projects:** Type of projects in which policies can be used to grant permissions. A policy can be applied to IAM projects, enterprise projects, or both. Policies that contain actions for both IAM and enterprise projects can be used and take effect for both IAM and Enterprise Project Management Service (EPS). Policies that only contain actions for IAM projects can be used and only take effect for IAM.

For details about the custom actions supported by DDS, see [DDS Actions](#).

6.2 DDS Actions

Table 6-1 DB instance management

Permissions	API	Action	IAM Project	Enterprise Project
Creating a DB instance	POST /v3/{project_id}/instances	dds:instance:create vpc:vpcs:list vpc:vpcs:get vpc:subnets:get vpc:securityGroups:get vpc:ports:get	√	x
Querying a DB instance list	GET /v3/{project_id}/instances?id={id}&name={name}&mode={mode}&datastore_type={datastore_type}&vpc_id={vpc_id}&subnet_id={subnet_id}&offset={offset}&limit={limit}	dds:instance:list	√	x
Deleting a DB instance	DELETE /v3/{project_id}/instances/{instance_id}	dds:instance:deleteInstance	√	x
Restarting a DB instance	POST /v3/{project_id}/instances/{instance_id}/restart	dds:instance:reboot	√	x

Permissions	API	Action	IAM Project	Enterprise Project
Scaling up storage space	POST /v3/{project_id}/instances/{instance_id}/enlarge-volume	dds:instance:extendVolume	√	x
Adding nodes for a cluster instance	POST /v3/{project_id}/instances/{instance_id}/enlarge	dds:instance:extendNode vpc:vpcs:list vpc:vpcs:get vpc:subnets:get vpc:securityGroups:get vpc:ports:get	√	x
Modifying DB instance specifications	POST /v3/{project_id}/instances/{instance_id}/resize	dds:instance:modifySpec	√	x
Performing a primary/secondary switchover for a replica set instance.	POST /v3/{project_id}/instances/{instance_id}/switchover	dds:instance:switchover	√	x
Enabling or disabling SSL	POST/v3/{project_id}/instances/{instance_id}/switch-ssl	dds:instance:modifySSL	√	x
Changing a DB instance name	PUT /v3/{project_id}/instances/{instance_id}/modify-name	dds:instance:modify	√	x
Changing a database port	POST /v3/{project_id}/instances/{instance_id}/modify-port	dds:instance:modifyPort	√	x

Permissions	API	Action	IAM Project	Enterprise Project
Changing a security group	POST /v3/{project_id}/instances/{instance_id}/modify-security-group	dds:instance:modifySecurityGroup	√	x
Binding an EIP	POST /v3/{project_id}/nodes/{node_id}/bind-eip	dds:instance:bindPublicIp	√	x
Unbinding an EIP	POST /v3/{project_id}/nodes/{node_id}/unbind-eip	dds:instance:unbindPublicIp	√	x
Changing the private IP address of a DB instance.	POST /v3/{project_id}/instances/{instance_id}/modify-internal-ip	dds:instance:modifyVIP	√	x

Table 6-2 Backup and restoration

Permissions	API	Action	IAM Project	Enterprise Project
Creating a manual backup	POST /v3/{project_id}/backups	dds:instance:createManualBackup	√	x
Deleting a manual backup	DELETE /v3/{project_id}/backups/{backups_id}	dds:backup:delete	√	x
Querying a backup list	GET /v3/{project_id}/backups? instance_id={instance_id}&backup_id={backup_id}&backup_type={backup_type}&offset={offset}&limit={limit}&begin_time={begin_time}&end_time={end_time}&mode={mode}	dds:backup:list	√	x

Permissions	API	Action	IAM Project	Enterprise Project
Querying an automated backup policy	GET /v3/{project_id}/instances/{instance_id}/backups/policy	dds:instance:list	√	x
Setting an automated backup policy	PUT /v3/{project_id}/instances/{instance_id}/backups/policy	dds:instance:modifyBackupPolicy	√	x
Restoring data to new DB instances	POST /v3/{project_id}/instances	dds:instance:create vpc:vpcs:list vpc:vpcs:get vpc:subnets:get vpc:securityGroups:get vpc:ports:get	√	x
Obtaining the link for downloading a backup file	GET /v3/{projectId}/backups/download-file	dds:backup:download	√	x

Table 6-3 Tag management

Permissions	API	Action	IAM Project	Enterprise Project
Adding or deleting resource tags in batches	POST /v3/{project_id}/instances/{instance_id}/tags/action	dds:instance:modify	√	x

Permissions	API	Action	IAM Project	Enterprise Project
Querying resource tags	GET /v3/{project_id}/instances/{instance_id}/tags	dds:instance:list	√	x

 NOTE

The check mark (√) indicates that an action takes effect. The cross mark (x) indicates that an action does not take effect.

7 Appendix

7.1 Status Code

- Normal

Status Code	Message	Description
200	OK	Request succeeded.
202	Accepted	Asynchronous request submitted successfully.

- Abnormal

Status Code	Message	Description
400	Bad Request	Invalid request. The client should not repeat the request without modifications.
401	Unauthorized	The authorization information provided by the client is incorrect or invalid. Check the username and password.
403	Forbidden	The request is rejected. The server has received and understood the request; yet it refused to respond, because the request is set to deny access. Do not retry the request before modification.
404	Not Found	The requested resource cannot be found. The client should not repeat the request without modifications.

Status Code	Message	Description
405	Method Not Allowed	The method specified in the request is not supported for the requested resource. The client should not repeat the request without modifications.
409	Conflict	The request could not be processed due to a conflict. This status code indicates that the resource that the client attempts to create already exists, or the request fails to be processed because of the update of the conflict request.
413	Request Entity Too Large	The request is larger than that a server is 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.
415	Unsupported Media Type	The server is unable to process the media format in the request.
422	Unprocessable Entity	The request is well-formed but is unable to be processed due to semantic errors.
500	Internal Server Error	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.
503	Service Unavailable	The requested service is invalid. The client should not repeat the request without modifications.

7.2 Error Code

If an error occurs in an API, no result is returned. You can locate the error cause based on the error codes of each API. When the invocation fails, an HTTP status code is returned. The returned message body contains the specific error code and information.

Error Response Body Format

- Parameter description

Table 7-1 Parameter description

Name	Type	Description
error_code	String	Specifies the error returned when a task submission exception occurs.
error_msg	String	Specifies the description of the error returned when a task submission exception occurs.

- Response example

```
{
  "error_code": "DBS.200001",
  "error_msg": "Parameter error"
}
```

Error Code Description

Table 7-2 Error code description

HTTP Status Code	Error Code	Error Information	Handling Measure
400	DBS.200001	Parameter error.	Check whether the transferred parameters or URLs are correct.
404	DBS.200002	The DB instance does not exist.	Check whether the DB instance and its ID are correct and whether the DB instance exists.
400	DBS.200010	Authentication failed	Check whether the tenant and instance match.
403	DBS.200011	Operation cannot be executed in current state of the DB instance.	Check whether the instance status or the ongoing operation on the instance conflicts with the request.
404	DBS.200013	The node does not exist.	Check whether the node ID or group ID is correct.

HTTP Status Code	Error Code	Error Information	Handling Measure
403	DBS.200018	This DB instance is not available.	Check whether the instance status or the ongoing operation on the instance conflicts with the request.
403	DBS.200019	Operation cannot be executed in current state of the DB instance.	Check whether the instance status or the ongoing operation on the instance conflicts with the request.
400	DBS.200024	The region is unavailable.	Check whether the region name is correct and whether the region is available.
400	DBS.200022	The DB instance name already exists.	Check whether the DB instance name exists.
400	DBS.200025	Invalid AZ.	Check whether the AZ name is correct and whether the AZ is available.
403	DBS.200028	The maximum storage space has been reached.	Check whether the storage space exceeds the upper limit.
400	DBS.200041	Invalid database version.	Check whether the database version is supported.
404	DBS.200042	Invalid DB engine.	Check whether the DB engine is supported by DDS.
400	DBS.200029	Invalid username and password.	Check whether the username and password match and whether the password meets the password strength requirements.

HTTP Status Code	Error Code	Error Information	Handling Measure
400	DBS.200047	Operation cannot be executed in current state of the DB instance or node.	Check whether the instance status or the ongoing operation on the instance conflicts with the request.
400	DBS.200048	Invalid VPC.	Check whether the VPC ID and name are correct and meet the requirements.
400	DBS.200049	Invalid subnet.	Check whether the subnet ID and name are correct and meet the requirements.
400	DBS.200050	Invalid security group.	Check whether the security group ID and name are correct and meet the requirements.
400	DBS.200052	Invalid password.	Check whether the username and password match and whether the password meets the password strength requirements.
400	DBS.200053	The DB instance specifications do not exist.	Check whether the specifications are correct and supported in the current AZ.
400	DBS.200054	Invalid DB instance specifications.	Check whether the specifications are correct and supported in the current AZ.
400	DBS.200057	Invalid parameter group.	Check whether the parameter group is correct, whether the parameter group exists, and whether the parameter group matches the instance type.

HTTP Status Code	Error Code	Error Information	Handling Measure
400	DBS.200059	Invalid database port	Check whether the database port is missing or valid.
400	DBS.200060	The database port number is out of the specified range.	Check whether the database port is valid.
400	DBS.200075	Invalid node role.	Check whether the role of the node meets the requirements and whether the instance is normal.
403	DBS.200076	Operation cannot be executed in current state of the DB instance.	Check whether the instance status or the ongoing operation on the instance conflicts with the request.
400	DBS.200091	Invalid IP address.	Check whether the required IP address is missing or whether the input IP address is valid.
400	DBS.200092	The IP address already exists.	Check whether the IP address exists.
400	DBS.200095	Parameter error.	Check whether the parameters in the request and URLs are correct.
400	DBS.200302	The storage space must be a multiple of 10.	Check whether the storage space is a multiple of 10.
400	DBS.200303	The maximum number of times that the storage space can be scaled up has been reached.	The maximum number of times that the storage space can be scaled up has been reached. To continue to scale up the storage space, contact technical support.

HTTP Status Code	Error Code	Error Information	Handling Measure
400	DBS.200304	The storage space can be scaled up a maximum of four times.	Check whether the instance has been scaled up for multiple times.
400	DBS.200306	Invalid storage space.	Check whether the storage space is correct and meets the requirements.
400	DBS.200311	Scaling up the storage space is not allowed in current state of the node.	Check whether the node type, instance type, and node ID are correct.
400	DBS.200434	Failed to restart the DB instance.	Check whether the DB instance status is normal and whether other operations are being performed on the DB instance.
400	DBS.200451	The node does not exist.	Check whether node ID is correct.
400	DBS.200462	The database port is the same as the current port.	Check whether the new port number is the same as the original port number.
400	DBS.200470	Invalid AZ.	Check whether the AZ is correct.
400	DBS.200501	The subnet does not exist.	Check whether the subnet ID and name exist and match the VPC.
400	DBS.200502	The security group does not exist.	Check whether the security group ID and name exist and match the VPC.
400	DBS.200503	The VPC does not exist.	Check whether the tenant has the VPC.
400	DBS.200506	The encryption key does not exist.	Check whether the disk encryption key ID exists.
400	DBS.200507	The encryption key is not available.	Check whether the disk encryption key is available.

HTTP Status Code	Error Code	Error Information	Handling Measure
400	DBS.200604	The instance is not owned by the current user.	Check whether the project ID is subordinate to the instance ID.
400	DBS.200998	The system is busy. Try again later.	The system is busy. Try again later.
403	DBS.201000	Operation cannot be executed in current state of the DB instance.	Check whether the instance status or the ongoing operation on the instance conflicts with the request.
400	DBS.201006	Parameter error.	Check whether the transferred parameters or URLs are correct.
403	DBS.201014	Operation cannot be executed in current state of the DB instance.	Check whether the instance status or the ongoing operation on the instance conflicts with the request.
403	DBS.201015	This operation cannot be performed because another operation is being performed.	Check whether the instance status or the ongoing operation on the instance conflicts with the request.
400	DBS.201020	Invalid DB engine.	Check whether the DB engine is supported by DDS.
403	DBS.201028	The DB instance does not exist.	Check whether the DB instance belongs to the tenant and whether the DB instance exists.
400	DBS.201201	The backup already exists.	Check whether the backup name or ID already exists.

HTTP Status Code	Error Code	Error Information	Handling Measure
400	DBS.201202	Operation cannot be executed in current state of the DB instance.	Check whether the instance status or the ongoing operation on the instance conflicts with the request.
400	DBS.201204	The backup file does not exist.	Check whether the backup file exists and matches the instance.
400	DBS.201214	The backup file does not exist.	Check whether the backup exists and matches the instance.
400	DBS.201319	Deleting backup file is not allowed because a restoration task is currently in progress. Please wait.	Check whether the backup is being used to restore instances.
400	DBS.201501	The DB instance does not exist.	Check whether the tenant has the DB instance, whether the DB instance name or ID is correct, and whether the DB instance exists.
400	DBS.201502	The DB instance does not exist.	Check whether the tenant has the DB instance, whether the DB instance name or ID is correct, and whether the DB instance exists.
404	DBS.212001	This parameter group does not exist.	Check whether the parameter group exists.
400	DBS.212003	This operation is not permitted.	Check whether the instance status or the ongoing operation on the instance conflicts with the request.

HTTP Status Code	Error Code	Error Information	Handling Measure
400	DBS.212006	The node associated with this parameter group is not available.	Check whether the node that is associated with the parameter group is normal.
400	DBS.212008	The database type is not supported.	Check whether the database type is supported
400	DBS.212013	This parameter group does not exist.	Check whether the parameter exists.
400	DBS.212017	Invalid parameter.	Check whether the transferred parameters or URLs are correct and meet the requirements.
400	DBS.212019	Invalid parameter.	Check whether the transferred parameters or URLs are correct and meet the requirements.
400	DBS.212028	Invalid parameter group description.	Check whether the parameter group description is valid.
400	DBS.212030	The parameter group name already exists.	Check whether the parameter group name is correct and whether the tenant has created the parameter group.
400	DBS.212031	Invalid parameter group name.	Check whether the parameter group name meets the requirements:
400	DBS.212032	The operation cannot be performed because this parameter group is applied to one or more DB instance nodes.	Check whether the parameter group has been applied to the instance.

HTTP Status Code	Error Code	Error Information	Handling Measure
500	DBS.201509	The OBS service system is faulty.	An internal error occurs. Contact the O&M personnel to locate the fault.
400	DBS.238007	This operation cannot be performed in the current IP address status.	Check whether the delivered IP address is in use.
400	DBS.239011	Invalid SSL option.	Check whether the SSL parameter is missing or whether the SSL option is valid.
400	DBS.239012	The specifications are improper.	Check whether the specifications are proper when the backup of an Enhanced Edition instance is restored to a new DB instance.
400	DBS.280001	Parameter error.	Check whether the transferred parameters or URLs are correct and meet the requirements.
500	DBS.280005	Server error. Try again later.	Contact technical support engineers.
400	DBS.280015	Permission denied.	Check whether the token expires and whether the instance matches the tenant.
400	DBS.280016	Resource not found.	Check whether the transferred parameters are correct and whether the instance exists.
403	DBS.280019	Account suspended.	Check the account balance.

HTTP Status Code	Error Code	Error Information	Handling Measure
403	DBS.280032	Permission denied.	Check whether the user group to which the current user belongs has the corresponding operation permission.
403	DBS.280042	Invalid request.	Check whether the request is allowed by the current instance status and the operations being performed on the instance and whether the request is valid.
401	DBS.280056	Invalid token.	Check whether the instance belongs to the tenant and whether the token has been obtained again.
400	DBS.200072	Invalid storage space.	Check whether the storage space exceeds the upper limit.
400	DBS.280110	The DB instance does not exist.	Check whether the tenant has the DB instance, whether the DB instance name or ID is correct, and whether the DB instance exists.
400	DBS.280122	Invalid DB engine.	Check whether the storage engine matches the instance engine.
400	DBS.280123	Invalid node number.	Check whether the number of nodes to be added to the instance meets the requirements.

HTTP Status Code	Error Code	Error Information	Handling Measure
400	DBS.280124	Invalid backup.	Check whether the backup ID is correct and meets the requirements.
400	DBS.280127	Invalid backup description.	Check whether the backup description is correct and meets the requirements.
400	DBS.280200	The password contains invalid characters.	Check whether the password is correct and meets the requirements.
400	DBS.280214	Invalid retention period.	Check whether the backup retention period is correct.
400	DBS.280215	Invalid backup period.	Check whether the backup start time, end time, and backup cycle are correct and meet the requirements.
400	DBS.280216	Invalid backup start time.	Check whether the backup start time meets the requirements and whether the relationship between the backup start time and end time is correct.
400	DBS.280234	Invalid DB instance name.	Check whether the instance name is correct and whether the instance exists.
400	DBS.280235	Invalid DB engine.	Check whether the DB engine information is correct.
400	DBS.280236	Invalid database version.	Check whether the database version is supported.

HTTP Status Code	Error Code	Error Information	Handling Measure
400	DBS.280239	Invalid specifications.	Check whether the specification code is correct, whether the specification exists in the current AZ, and whether the specification is supported.
400	DBS.280241	Invalid storage type.	Check whether the storage type is correct and meets the requirements.
400	DBS.280242	The storage space is out of range.	Check whether the disk size is correct.
400	DBS.280244	Invalid AZ.	Check whether the parameters of the AZ are correct, whether the AZ exists, and whether the AZ matches the specifications.
400	DBS.280247	Invalid VPC.	Check whether the VPC ID is correct and whether the VPC exists.
400	DBS.280248	Invalid subnet.	Check whether the subnet ID is correct and whether the subnet exists.
400	DBS.280249	Invalid security group.	Check whether the security group ID is correct and whether the security group exists.
400	DBS.280266	Invalid storage space.	Check whether the storage space is correct and meets the requirements.

HTTP Status Code	Error Code	Error Information	Handling Measure
400	DBS.280267	Specifications not match.	Check whether the specification information is correct and whether the specification matches the instance.
400	DBS.280277	Invalid backup name.	Check whether the backup name is correct and meets the requirements.
400	DBS.280280	Invalid DB instance number.	Check whether the number of DB instances is correct and meets the requirements.
400	DBS.280284	Invalid IP address.	Check whether the IP address is correct and meets the requirements.
400	DBS.280292	Invalid username.	Check whether the username is correct and meets the requirements.
400	DBS.280311	Invalid storage space.	Check whether the storage space is correct and meets the requirements.
400	DBS.280314	Invalid storage type.	Check whether the storage type is correct and whether the instance supports the disk type.
400	DBS.280327	Invalid node type.	Check whether the node type is correct, whether the node type matches the instance, and whether the node type matches the group ID and node ID.

HTTP Status Code	Error Code	Error Information	Handling Measure
400	DBS.280342	Invalid DB instance mode.	Check whether the instance mode is correct and whether the instance mode matches the instance ID.
400	DBS.280365	Invalid payment mode.	Check whether the payment mode is correct and meets the requirements.
400	DBS.280404	Invalid DB instance ID.	Check whether the instance ID is correct and meets the requirements.
403	DBS.280406	The DB instance cannot be deleted.	Check whether the deletion of instances is supported by the DB engine.
400	DBS.280407	Invalid node ID.	Check whether the node ID is correct and meets the requirements.
400	DBS.280408	Unauthorized tenant ID	Check whether the tenant ID is correct and meets the requirements.
400	DBS.280414	Invalid group type.	Check whether the group type is correct, whether the group type matches the instance, and whether the node type matches the group ID.
400	DBS.280416	Invalid backup end time	Check whether the backup end time is missing and whether the backup end time period and format meet the requirements.
400	DBS.280421	Invalid EIP.	Check whether the EIP exists and meets the requirements.

HTTP Status Code	Error Code	Error Information	Handling Measure
400	DBS.280434	Invalid resource specifications code.	Check whether the resource specifications code exists and meets the requirements.
400	DBS.280446	The database information does not exist.	Check whether the datastore field exists.
400	DBS.280438	Invalid encryption key ID.	Check whether the disk encryption key ID in the request is created and available, and whether the current DB engine supports disk encryption.
400	DBS.280439	Invalid query limit.	Check whether the value of the limit parameter is valid.
400	DBS.280440	Invalid offset.	Check whether the value of the offset parameter is valid.
400	DBS.280441	Invalid key.	Check whether the tag key is valid.
429	DBS.280443	The maximum number of connections has been reached.	APIs are frequently called by the same tenant. Reduce the frequency of API calls.
400	DBS.280445	The DB instance class is not available.	The current DB instance class is unavailable. Select another one.
400	DBS.280469	Invalid ECS group policy.	Check whether the policy associated with the ECS group is correct.
400	DBS.290000	Parameter error.	Check whether the transferred parameters or URLs are correct and meet the requirements.

7.3 Obtaining a Project ID

Scenarios

A project ID is required for some URLs when an API is called. Therefore, you need to obtain a project ID in advance. To obtain the project ID:

- [Obtaining the Project ID by Calling an API](#)
- [Obtain a Project ID from the Console](#)

Obtaining the Project ID by Calling an API

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

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

The following is an example response. The value of **id** is the project ID.

```
{
  "projects": [
    {
      "domain_id": "65382450e8f64ac0870cd180d14e684b",
      "is_domain": false,
      "parent_id": "65382450e8f64ac0870cd180d14e684b",
      "name": "project_name",
      "description": "",
      "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
      },
      "id": "a4a5d4098fb4474fa22cd05f897d6b99",
      "enabled": true
    }
  ],
  "links": {
    "next": null,
    "previous": null,
    "self": "https://www.example.com/v3/projects"
  }
}
```

Obtain a Project ID from the Console

1. Register yourself on the management console and log in to it.
2. Move your pointer over the username and select **My Credential** in the displayed drop-down list.

On the **My Credential** page, view the project ID in the project list.

7.4 DDS Metrics

Function

This section describes metrics reported by Document Database Service (DDS) to Cloud Eye as well as their namespaces and dimensions. You can use APIs provided by Cloud Eye to query the metrics of the monitored object and alarms generated for DDS.

Namespace

SYS.DDS

Monitoring Metrics

Metrics	Metrics Name	Description	Value Range	Remarks
mongo001_command_ps	COMMAND Statements per Second	Number of COMMAND statements executed per second	≥ 0 Count/s	Monitored object: database Monitored object type: - Cluster instance - mongos node - Primary node - Secondary node
mongo002_delete_ps	DELETE Statements per Second	Number of DELETE statements executed per second	≥ 0 Count/s	Monitored object: database Monitored object type: - Cluster instance - mongos node - Primary node - Secondary node

Metrics	Metrics Name	Description	Value Range	Remarks
mongo003_insert_ps	INSERT Statements per Second	Number of INSERT statements executed per second	≥ 0 Count/s	Monitored object: database Monitored object type: - Cluster instance - mongos node - Primary node - Secondary node
mongo004_query_ps	QUERY Statements per Second	Number of QUERY statements executed per second	≥ 0 Count/s	Monitored object: database Monitored object type: - Cluster instance - mongos node - Primary node - Secondary node
mongo005_update_ps	UPDATE Statements per Second	Number of UPDATE statements executed per second	≥ 0 Count/s	Monitored object: database Monitored object type: - Cluster instance - mongos node - Primary node - Secondary node
mongo006_getmore_ps	GETMORE Statements per Second	Number of GETMORE statements executed per second	≥ 0 Count/s	Monitored object: database Monitored object type: - Cluster instance - mongos node - Primary node - Secondary node

Metrics	Metrics Name	Description	Value Range	Remarks
mongo007_chunk_num1	Chunks of Shard 1	Number of chunks in shard 1	0–64 Counts	Monitored object: database Monitored object type: cluster instance
mongo007_chunk_num2	Chunks of Shard 2	Number of chunks in shard 2	0–64 Counts	Monitored object: database Monitored object type: cluster instance
mongo007_chunk_num3	Chunks of Shard 3	Number of chunks in shard 3	0–64 Counts	Monitored object: database Monitored object type: cluster instance
mongo007_chunk_num4	Chunks of Shard 4	Number of chunks in shard 4	0–64 Counts	Monitored object: database Monitored object type: cluster instance
mongo007_chunk_num5	Chunks of Shard 5	Number of chunks in shard 5	0–64 Counts	Monitored object: database Monitored object type: cluster instance
mongo007_chunk_num6	Chunks of Shard 6	Number of chunks in shard 6	0–64 Counts	Monitored object: database Monitored object type: cluster instance
mongo007_chunk_num7	Chunks of Shard 7	Number of chunks in shard 7	0–64 Counts	Monitored object: database Monitored object type: cluster instance
mongo007_chunk_num8	Chunks of Shard 8	Number of chunks in shard 8	0–64 Counts	Monitored object: database Monitored object type: cluster instance

Metrics	Metrics Name	Description	Value Range	Remarks
mongo07_chunk_num9	Chunks of Shard 9	Number of chunks in shard 9	0–64 Counts	Monitored object: database Monitored object type: cluster instance
mongo07_chunk_num10	Chunks of Shard 10	Number of chunks in shard 10	0–64 Counts	Monitored object: database Monitored object type: cluster instance
mongo07_chunk_num11	Chunks of Shard 11	Number of chunks in shard 11	0–64 Counts	Monitored object: database Monitored object type: cluster instance
mongo07_chunk_num12	Chunks of Shard 12	Number of chunks in shard 12	0–64 Counts	Monitored object: database Monitored object type: cluster instance
mongo08_connections	Active Instance Connections	Total number of connections attempting to connect to a DDS DB instance	≥ 0 Counts	Monitored object: database Monitored object type: cluster instance
mongo09_migration_fail_num	Chunk Migration Failures in Last 24 hrs	Number of chunk migration failures in the last 24 hours	≥ 0 Counts	Monitored object: database Monitored object type: cluster instance
mongo07_node_connections	Active Node Connections	Total number of connections attempting to connect to a DDS DB instance node	0–200 Counts	Monitored object: database Monitored object type: • mongos node • Primary node • Secondary node

Metrics	Metrics Name	Description	Value Range	Remarks
mongo008_mem_resident	Resident Memory	Size of resident memory in MB	≥ 0 MB	Monitored object: database Monitored object type: • mongos node • Primary node • Secondary node
mongo009_mem_virtual	Virtual Memory	Size of virtual memory in MB	≥ 0 MB	Monitored object: database Monitored object type: • mongos node • Primary node • Secondary node
mongo010_regular_asserts_ps	Regular Asserts per Second	Number of regular asserts per second	≥ 0 Count/s	Monitored object: database Monitored object type: • mongos node • Primary node • Secondary node
mongo011_warning_asserts_ps	Warning Asserts per Second	Number of warning asserts per second	≥ 0 Count/s	Monitored object: database Monitored object type: • mongos node • Primary node • Secondary node
mongo012_message_asserts_ps	Message Asserts per Second	Number of message asserts per second	≥ 0 Count/s	Monitored object: database Monitored object type: • mongos node • Primary node • Secondary node

Metrics	Metrics Name	Description	Value Range	Remarks
mongo013_user_asserts_per_s	User Asserts per Second	Number of user asserts per second	≥ 0 Count/s	Monitored object: database Monitored object type: • mongos node • Primary node • Secondary node
mongo014_operations_queued_waiting_for_a_lock	Operations Queued Waiting for a Lock	Number of operations queued waiting for a lock	≥ 0 Counts	Monitored object: database Monitored object type: • Primary node • Secondary node
mongo015_operations_queued_waiting_for_a_read_lock	Operations Queued Waiting for a Read Lock	Number of operations queued waiting for a read lock	≥ 0 Counts	Monitored object: database Monitored object type: • Primary node • Secondary node
mongo016_operations_queued_waiting_for_a_write_lock	Operations Queued Waiting for a Write Lock	Number of operations queued waiting for a write lock	≥ 0 Counts	Monitored object: database Monitored object type: • Primary node • Secondary node
mongo017_page_faults	Page Faults	Number of page faults on the monitored nodes	≥ 0 Counts	Monitored object: database Monitored object type: • Primary node • Secondary node

Metrics	Metrics Name	Description	Value Range	Remarks
mongo018_profile_num	Slow Queries	Number of slow queries on the monitored nodes	≥ 0 Counts	Monitored object: database Monitored object type: - Primary node - Secondary node
mongo019_cursor_open	Current Maintained Cursors	Number of maintained cursors on the monitored nodes	≥ 0 Counts	Monitored object: database Monitored object type: - Primary node - Secondary node
mongo020_cursor_timeout	Timeout Cursors	Number of timed out cursors on the monitored nodes	≥ 0 Counts	Monitored object: database Monitored object type: - Primary node - Secondary node
mongo021_wt_cache_usage	Bytes in WiredTiger Cache	Size of data in the WiredTiger cache in MB	≥ 0 MB	Monitored object: database Monitored object type: - Primary node - Secondary node
mongo022_wt_cache_dirty	Tracked Dirty Bytes in WiredTiger Cache	Size of tracked dirty data in the WiredTiger cache in MB	≥ 0 MB	Monitored object: database Monitored object type: - Primary node - Secondary node

Metrics	Metrics Name	Description	Value Range	Remarks
mongo023_wlnto_wtCache	Bytes Written Into Cache per Second	Bytes written into WiredTiger cache per second	≥ 0 bytes/s	Monitored object: database Monitored object type: • Primary node • Secondary node
mongo024_wFrom_wtCache	Bytes Written From Cache per Second	Bytes written from the WiredTiger cache to the disk per second	≥ 0 bytes/s	Monitored object: database Monitored object type: • Primary node • Secondary node
mongo025_repl_oplog_window	Oplog Window	Available time in hour in the monitored primary node's oplog	≥ 0 Hours	Monitored object: database Monitored object type: primary node
mongo026_oplog_size_ph	Oplog Growth Rate	Speed in MB/hour at which oplogs are generated on the monitored primary node	≥ 0 MB/Hour	Monitored object: database Monitored object type: primary node
mongo025_repl_headroom	Replication Headroom	Time difference in seconds between the primary's oplog window and the replication lag of the secondary	≥ 0 Seconds	Monitored object: database Monitored object type: secondary node
mongo026_repl_lag	Replication Lag	A delay in seconds between an operation on the primary and the application of that operation from the oplog to the secondary	≥ 0 Seconds	Monitored object: database Monitored object type: secondary node
mongo027_repl_command_ps	Replicated COMMAND Statements per Second	Number of replicated COMMAND statements executed on the secondary node per second	≥ 0 Count/s	Monitored object: database Monitored object type: secondary node

Metrics	Metrics Name	Description	Value Range	Remarks
mongo028_repl_update_ps	Replicated UPDATE Statements per Second	Number of replicated UPDATE statements executed on the secondary node per second	≥ 0 Count/s	Monitored object: database Monitored object type: secondary node
mongo029_repl_delete_ps	Replicated DELETE Statements per Second	Number of replicated DELETE statements executed on the secondary node per second	≥ 0 Count/s	Monitored object: database Monitored object type: secondary node
mongo030_repl_insert_ps	Replicated INSERT Statements per Second	Number of replicated INSERT statements executed on the secondary node per second	≥ 0 Count/s	Monitored object: database Monitored object type: secondary node
mongo031_cpu_usage	CPU Usage	CPU usage of the monitored object	0–1	Monitored object: ECS Monitored object type: - mongos node - Primary node - Secondary node
mongo032_mem_usage	Memory Usage	Memory usage of the monitored object	0–1	Monitored object: ECS Monitored object type: - mongos node - Primary node - Secondary node
mongo033_bytes_out	Network Output Throughput	Outgoing traffic in bytes per second	≥ 0 bytes/s	Monitored object: ECS Monitored object type: - mongos node - Primary node - Secondary node

Metrics	Metrics Name	Description	Value Range	Remarks
mongo034_bytes_in	Network Input Throughput	Incoming traffic in bytes per second	≥ 0 bytes/s	Monitored object: ECS Monitored object type: • mongos node • Primary node • Secondary node
mongo035_disk_usage	Disk Utilization	Disk usage of the monitored object	0–1	Monitored object: ECS Monitored object type: • Primary node • Secondary node
mongo036_iops	IOPS	Average number of I/O requests processed by the system in a specified period	≥ 0 Count/s	Monitored object: ECS Monitored object type: • Primary node • Secondary node
mongo037_read_throughput	Disk Read Throughput	Number of bytes read from the disk per second	≥ 0 bytes/s	Monitored object: ECS Monitored object type: • Primary node • Secondary node
mongo038_write_throughput	Disk Write Throughput	Number of bytes written into the disk per second	≥ 0 bytes/s	Monitored object: ECS Monitored object type: • Primary node • Secondary node

Metrics	Metrics Name	Description	Value Range	Remarks
mongo039_avg_disk_sec_per_read	Disk Read Time	Average time required for each disk read in a specified period	≥ 0 Seconds	Monitored object: ECS Monitored object type: - Primary node - Secondary node
mongo040_avg_disk_sec_per_write	Disk Write Time	Average time required for each disk write in a specified period	≥ 0 Seconds	Monitored object: ECS Monitored object type: - Primary node - Secondary node
mongo042_disk_total_size	Total Storage Space	Total storage space of the monitored object	0–1000 GB	Monitored object: ECS Monitored object type: - Primary node - Secondary node
mongo043_disk_used_size	Used Storage Space	Used storage space of the monitored object	0–1000 GB	Monitored object: ECS Monitored object type: - Primary node - Secondary node
mongo044_swap_usage	SWAP Usage	Swap usage, in percentage	0~100 %	Monitored object: database Monitored object type: - Primary node - Secondary node

Metrics	Metrics Name	Description	Value Range	Remarks
mongo050_top_total_time	Total Time Spent on Collections	Mongotop-total time: total time spent on collection operations, in milliseconds.	0.001~60000 0.00 ms	Monitored object: database Monitored object type: - Primary node - Secondary node
mongo051_top_read_time	Total Time Spent Reading Collections	Mongotop-read time: total time spent reading collections, in milliseconds.	0.001~60000 0.00 ms	Monitored object: database Monitored object type: - Primary node - Secondary node
mongo052_top_write_time	Total Time Spent Writing Collections	Mongotop-write time: total time spent writing collections, in milliseconds.	0.001~60000 0.00 ms	Monitored object: database Monitored object type: - Primary node - Secondary node
mongo053_wt_flushes_status	Number of Times that Checkpoints Are Triggered	Number of times that WiredTiger checkpoints are triggered during a polling interval	0~100 00000 Times	Monitored object: database Monitored object type: - Primary node - Secondary node
mongo054_wt_cache_used_percent	Percentage of the Cache Used by WiredTiger	Cache size used by WiredTiger, in percentage	0~100 %	Monitored object: database Monitored object type: - Primary node - Secondary node

Metrics	Metrics Name	Description	Value Range	Remarks
mongo055_wt_cache_dirty_percent	Percentage of Dirty Data in the WiredTiger Cache	Dirty size in the WiredTiger cache, in percentage	0~100 %	Monitored object: database Monitored object type: - Primary node - Secondary node

Dimensions

Key	Value
mongodb_instance_id	DDS DB instance ID Cluster instance
mongodb_node_id	Secondary node ID Includes the mongos, config, and shard nodes of cluster instances and the nodes of replica set instances.

A Change History

Date	Description
2021-12-10	This issue is the fourth official release, which incorporates the following changes: Added Log Information Queries .
2020-10-26	This issue is the third official release, which incorporates the following changes: Modified the following content: • Modified the description in Authentication. • Modified the URI format in Querying API Version Information. • Modified the description of target_type in Restarting a DB Instance. • Modified the description group_id in Scaling Up Storage Space. • Modified the description of size in Adding Nodes for a Cluster Instance. Added the following content: • Restoring Data to a New DB Instance • Permissions Policies and Supported Actions

Date	Description
2020-06-30	This issue is the second official release, which incorporates the following changes: • Added Performing a Primary/Secondary Switchover in a Replica Set Instance. • Added section Enabling or Disabling SSL. • Added Changing the Administrator Password. • Added Modifying a DB Instance Name. • Added Changing a Database Port. • Added Changing a Security Group. • Added Binding an EIP. • Added Unbinding an EIP. • Added Changing a Private IP Address.
2019-11-30	This issue is the first official release.