GaussDB(for MySQL)

API Reference

Issue 01

Date 2025-07-11

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1 Before You Start

Overview

TaurusDB is an enterprise-grade cloud-native database service fully compatible with MySQL. It decouples compute from storage and supports up to 128 TB of storage per instance. With TaurusDB, there is no need to worry about data loss. It provides the high availability and superior performance of commercial databases at the price of open-source databases.

NOTE

Data Function Virtualization (DFV) is a high-performance and high-reliability distributed storage system that is vertically integrated with databases. Storage clusters are deployed in pools to improve storage utilization.

API Calling

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

Endpoints

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions.

Constraints

- The number of DB instances that you can create is determined by your quota. To view or increase the quota, see "Quota Management" in *TaurusDB User Guide*.
- Currently, APIs cannot be called for single-node instances.
- For more constraints, see API description.

Concepts

- Account

  An account is created after your registration. The account has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. The account is a payment entity

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and should not be used directly to perform routine management. For security purposes, create users and grant them permissions for routine management.

- IAM User

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

  API authentication requires information such as the account, 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.

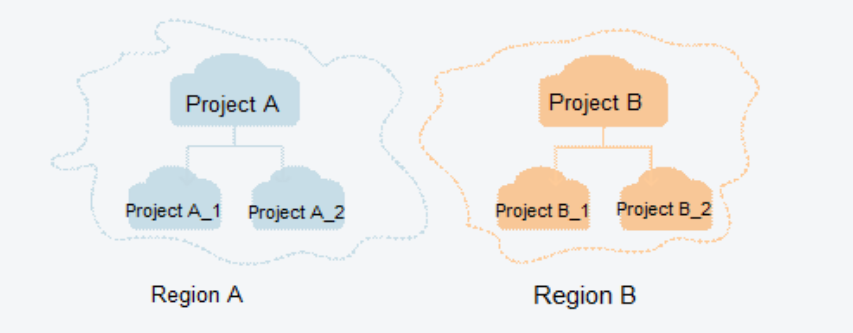
- AZ

  An AZ contains one or more physical data centers. Each AZ has independent cooling, fire extinguishing, moisture-proof, and electricity facilities. Within an AZ, computing, network, storage, and other resources 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. Projects group and isolate resources (including compute, storage, and network resources) across physical regions. Users can be granted permissions in a default project to access all resources in the region associated with the project. For more refined access control, create subprojects under a project and purchase resources in the subprojects. Users can then be assigned permissions to access only specific resources in the subprojects.

  Figure 1-1 Project isolation 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 in multiple regions, and resources can be directly transferred between enterprise projects.

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2 Calling APIs

2.1 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 consists of the following:

{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 2-1 Parameters in a URI

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

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NOTE

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

Request Methods

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

Table 2-2 HTTP methods

Method	Description
GET	Requests the server to return specified resources.
PUT	Requests the server to update specified resources.
POST	Requests the server to add resources or perform special operations.

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

```
POST https://{{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, to request for the authentication information, add **Content-Type**, which specifies the request body type.

Table 2-3 lists common request header fields.

Table 2-3 Common request headers

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

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Name	Description	Mandatory	Example
Host	Specifies the requested server information, which can be obtained from the URL of the service API. The value is in the *hostname[:port]* format. If the port number is not specified, the default port is used. The default port number for **https** is **443**.	No This parameter is mandatory for AK/SK authentication.	code.test.com or code.test.com:443
Content-Length	Specifies the length of the request body. The unit is byte.	No	3495
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in **Obtaining a Project ID**.	No	e9993fc787d94b6c886cbaa340f9c0f4
X-Auth-Token	Specifies the user token. The user token is a response to the API used to **obtain a user token**. This API is the only one that does not require authentication. The value of **X-Subject-Token** in the response header is the token value.	No This parameter is mandatory for token authentication.	The following is part of an example token: MIIPAgYJKoZIhvcNAQc-Co...ggg1BBIINPXsidG9rZ

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Name	Description	Mandatory	Example
X-Language	Request language type. The default value is **en-us**. Values: • **en-us** • **zh-cn**	No	**en-us**

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

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

(Optional) Request Body

This part is optional. The body of a request is often sent in a structured format (for example, JSON or XML) as specified in the **Content-Type** header field. If the request body contains full-width characters, these characters must be coded in UTF-8.

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

In the case of the API used to **obtain a user token**, the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace ***username***, ***domainname***, ************* (login password), and ***xxxxxxxxxxxxxxxxx*** (project name) with actual values. It can be obtained from the administrator.

NOTE

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

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

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

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```
      "scope": {
         "project": {
            "name": "xxxxxxxxxxxxxxxxxx"
         }
      }
   }
}
```

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

2.2 Authentication

Token authentication must be performed to call APIs.

Authentication using tokens: General requests are authenticated using tokens.

Token-based Authentication

NOTE

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

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

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

In **Making an API Request**, the process of calling the API used to **obtain a user token** is described.

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 **ABCDEFG....**, add **X-Auth-Token: ABCDEFG....** to a request as follows:

```
GET https://{{Endpoint}}/v3/auth/projects
```

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```
Content-Type: application/json
X-Auth-Token: ABCDEFG....
```

2.3 Response

Status Code

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

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

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

Response Header

Similar to a request, a response also has a header, for example, **Content-Type**.

Figure 2-1 shows the response header for the API used to **obtain a user token**. The **x-subject-token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

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

(Optional) Response Body

This part is optional. The body of a response is often returned in structured format (for example, JSON or XML) as specified in the **Content-Type** header field. The response body transfers content except the response header.

The following is part of the response body for the API used to **obtain a user token**.

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```
{
    "token": {
        "expires_at": "2019-02-13T06:52:13.855000Z",
        "methods": [
            "password"
        ],
        "catalog": [
            {
                "endpoints": [
                    {
                        "region_id": "az-01",
.....
```

If an error occurs during API calling, an error code and a message will be displayed. The following shows an error response body.

```
{
    "error_code": "AS.0001",
    "error_msg": "The format of message is error"
}
```

In the response body, **error_code** is an error code, and **error_msg** provides information about the error.

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3 APIs (Recommended)

3.1 API Version Queries

3.1.1 Querying API Versions

Function

This API is used to query API versions. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /

Request Parameters

None

Response Parameters

Status code: 200

Table 3-1 Response body parameter

Parameter	Type	Description
versions	Array of **OpenApiVersion** objects	Version list.

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Table 3-2 OpenApiVersion

Parameter	Type	Description
id	Object	Version number, for example, **v3**.
links	Array of **OpenApiLinks** objects	API URL.
status	String	Version status. **Values**: • **CURRENT**: The version is the primary version. • **SUPPORTED**: The version is an earlier version, but it is still supported. • **DEPRECATED**: The version is a deprecated version, which may be deleted later.
updated	String	Version release time in UTC. For example, the release time of v3 is 2020-10-29T03:30:42Z.
min_version	String	If the APIs of this version support microversions, the earliest microversion is returned. If not, an empty value is returned.

Table 3-3 OpenApiLinks

Parameter	Type	Description
href	Object	API URL. The value is "".
rel	Object	Its value is **self**, indicating that **href** is a local link.

Example Request

None

Example Response

None

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

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3.1.2 Querying API Information of a Specified Version

Function

This API is used to query API information of a specified version. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /{version_id}

Table 3-4 URI parameter

Parameter	Mandatory	Type	Description
version_id	Yes	String	API version. **Values**: • v3 • v3.1

Request Parameters

None

Response Parameters

Status code: 200

Table 3-5 Response body parameter

Parameter	Type	Description
version	Array of **OpenApiVersion** objects	Version details.

Table 3-6 OpenApiVersion

Parameter	Type	Description
id	Object	Version number, for example, **v3**.
links	Array of **OpenApiLinks** objects	API URL.

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Parameter	Type	Description
status	String	Version status. **Values**: • **CURRENT**: The version is the primary version. • **SUPPORTED**: The version is an earlier version, but it is still supported. • **DEPRECATED**: The version is a deprecated version, which may be deleted later.
updated	String	Version release time in UTC. For example, the release time of v3 is 2020-10-29T03:30:42Z.
min_version	String	If the APIs of this version support microversions, the earliest microversion is returned. If not, an empty value is returned.

Table 3-7 OpenApiLinks

Parameter	Type	Description
href	Object	API URL. The value is "".
rel	Object	Its value is **self**, indicating that **href** is a local link.

Example Request

None

Example Response

None

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.2 DB Engine Version Queries

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3.2.1 Querying Version Information About a DB Engine

Function

This API is used to query the version information of a specified DB engine. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/datastores/{database_name}

Table 3-8 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
database_name	Yes	String	**Definition**: DB engine. **Constraints**: N/A **Range**: gaussdb-mysql **Default value**: N/A

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Request Parameters

Table 3-9 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-10 Response body parameter

Parameter	Type	Description
datastores	Array of **MysqlEngineVersionInfo** objects	**Definition**: DB versions.

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Table 3-11 MysqlEngineVersionInfo

Parameter	Type	Description
id	String	**Definition**: DB version ID. The value is unique. **Range**: N/A
name	String	**Definition**: DB version number. Only the two-number major version is returned. **Range**: N/A

Status code: 400

Table 3-12 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-13 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying version information about a TaurusDB instance

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/datastores/gaussdb-mysql
```

Example Response

Status code: 200

Success.

```
{
  "datastores" : [ {
```

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```
    "id" : "87620726-6802-46c0-9028-a8785e1f1921",
    "name" : "8.0"


  } ]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.3 Database Specification Queries

3.3.1 Querying Database Specifications

Function

This API is used to query the database specifications of a specified DB engine version. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/flavors/{database_name}

Table 3-14 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range:** The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
database_name	Yes	String	**Definition**: DB engine name. **Constraints**: N/A **Range**: gaussdb-mysql **Default value**: N/A

Table 3-15 Query parameters

Parameter	Mandatory	Type	Description
availability_zone_mode	Yes	String	**Definition**: AZ type. **Constraints**: N/A **Range**: • **single**: single AZ • **multi**: multiple AZs **Default value**: single
version_name	No	String	**Definition**: DB version number. **Constraints**: Currently, only MySQL 8.0 is supported. **Range**: 8.0 **Default value**: 8.0

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Parameter	Mandatory	Type	Description
spec_code	No	String	**Definition**: Resource specification code. Example: gaussdb.mysql.xlarge.x86.4 • **gaussdb.mysql** indicates the product. • **xlarge** indicates the specifications (4 vCPUs). • **x86** indicates the x86 architecture. • **4** indicates the ratio of vCPUs to memory is 1:4. **Constraints**: N/A **Range**: N/A **Default value**: N/A

Request Parameters

Table 3-16 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 202

Table 3-17 Response body parameter

Parameter	Type	Description
flavors	Array of **MysqlFlavors Info** objects	**Definition**: Instance specifications.

Table 3-18 MysqlFlavorsInfo

Parameter	Type	Description
vcpus	String	**Definition**: Number of vCPUs. For example, the value **1** indicates 1 vCPU. **Range**: N/A
ram	String	**Definition**: Memory size in GB. **Range**: N/A

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Parameter	Type	Description
type	String	**Definition**: CPU architecture. **Range**: • **arm**: exclusive Arm • **x86**: exclusive x86 • **generalX86**: general-purpose x86
id	String	**Definition**: Specification ID, which uniquely identifies a specification. **Range**: N/A
spec_code	String	**Definition**: Resource specification code. Its value is same as the value of **spec_code**. Example: gaussdb.mysql.xlarge.x86.4 • **gaussdb.mysql** indicates the product. • **xlarge** indicates the specifications (4 vCPUs). • **x86** indicates the x86 architecture. • **4** indicates the ratio of vCPUs to memory is 1:4. **Range:** N/A
version_name	String	**Definition**: DB version number. **Range**: 8.0
instance_mode	String	**Definition**: Instance type. Currently, only the cluster type is supported. **Range**: Cluster

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Parameter	Type	Description
az_status	Map<String,String>	**Definition**: Status of the specification in the AZ. **Range**: • **normal**: The specification is available in the AZ. • **unsupported**: The specification is not supported. • **sellout**: The specification is sold out.

Status code: 400

Table 3-19 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-20 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying specific specifications of a TaurusDB instance

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/flavors/gaussdb-mysql?
version_name=8.0&spec_code=gaussdb.mysql.xlarge.x86.4&availability_zone_mode=single
```

Example Response

Status code: 202

Success.

```
{
  "flavors" : [ {
    "vcpus" : "4",
    "ram" : "16",
    "type" : "x86",
```

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```
    "id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
    "spec_code" : "gaussdb.mysql.xlarge.x86.4",
    "instance_mode" : "Cluster",
    "version_name" : "8.0",
    "az_status" : {
      "az1" : "normal",
      "az2" : "normal"
    }
  } ]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4 Instance Management

3.4.1 Creating a DB Instance

Function

This API is used to create a TaurusDB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instances

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Table 3-21 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A

Request Parameters

Table 3-22 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-23 Request body parameters

Parameter	Mandatory	Type	Description
region	Yes	String	**Definition**: Region ID. **Constraints**: N/A **Range**: The value cannot be empty. Obtain the parameter value from the enterprise administrator. **Default value**: N/A
name	Yes	String	**Definition**: Instance name. **Constraints**: Instances of the same type can have the same name under the same tenant. **Range**: The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
datastore	Yes	**MysqlDatastoreInReq** object	**Definition**: Database information. **Constraints**: N/A
mode	Yes	String	**Definition**: Instance type. **Constraints**: Currently, only the cluster type is supported. **Range**: Cluster **Default value**: N/A
flavor_ref	Yes	String	**Definition**: Specification code. For details, see **spec_code** in Table 5 in **Querying Database Specifications**. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
vpc_id	Yes	String	**Definition**: VPC ID. To obtain this value, use either of the following methods: • Method 1: Log in to the VPC console and view the VPC ID on the VPC details page. • Method 2: See "Querying VPCs" in the *Virtual Private Cloud API Reference*. **Constraints**: N/A **Range**: N/A **Default value**: N/A
subnet_id	Yes	String	**Definition**: Subnet ID. To obtain this value, use either of the following methods: • Method 1: Log in to the VPC console and click the target subnet on the **Subnets** page. You can view the subnet ID on the displayed page. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
password	Yes	String	**Definition**: Database password. **Constraints**: You are advised to enter a strong password to improve security and prevent security risks such as brute force cracking. If you enter a weak password, the system automatically determines that the password is invalid. **Range**: The password can consist of 8 to 32 characters and must contain at least three types of the following: uppercase letters, lowercase letters, digits, and special characters |.~!@#$%^*-_=+?,()& **Default value**: N/A
availability_zone_mode	Yes	String	**Definition**: AZ type. **Constraints**: N/A **Range**: • **single**: single AZ • **multi**: multiple AZs **Default value**: N/A
slave_count	Yes	Integer	**Definition**: Number of read replicas. **Constraints**: A maximum of nine read replicas can be created at a time. **Range**: 1–9 **Default value**: N/A

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Parameter	Mandatory	Type	Description
charge_info	Yes	**MysqlChargeInfo** object	**Definition**: Billing mode, which is yearly/monthly or pay-per-use (default setting).
security_group_id	No	String	**Definition**: Security group ID. To obtain this value, use either of the following methods: • Method 1: Log in to VPC console. Choose **Access Control** > **Security Groups** in the navigation pane. On the displayed page, click the target security group. You can view the security group ID on the displayed page. • Method 2: See "Querying Security Groups" in the *Virtual Private Cloud API Reference*. **Constraints**: If a network ACL is enabled for the subnet used by the created instance, this parameter is optional. If a network ACL is not enabled, this parameter is mandatory. **Range**: N/A **Default value**: N/A
configuration_id	No	String	**Definition**: Parameter template ID. For details, see **id** in Table 5 in **Querying Parameter Templates**. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
backup_strategy	Yes	MysqlBackupStrategy object	**Definition**: Automated backup policy. **Constraints**: N/A
time_zone	No	String	**Definition**: Time zone. **Constraints**: N/A **Range**: All the full hours from UTC-11:00 to UTC+12:00. **Default value**: UTC
master_availability_zone	No	String	**Definition**: Primary AZ ID. **Constraints**: This parameter is optional for a single-AZ instance and mandatory for a multi-AZ instance. **Range**: The value cannot be empty. Obtain the parameter value from the enterprise administrator. **Default value**: N/A

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Parameter	Mandatory	Type	Description
tags	No	Array of **MysqlTags** objects	**Definition**: Tag list. Each instance can be associated with tag key–value pairs while being created. **Constraints**: • *{key}* indicates the tag key. It must be unique and cannot be empty. • *{value}* indicates the tag value, which can be empty. If you want to create instances with multiple tag key–value pairs, separate them with commas (,). A maximum of 20 key–value pairs can be added for an instance.
lower_case_table_names	No	Integer	**Definition**: Whether table names are case sensitive. **Constraints**: This parameter cannot be changed after the instance is created. **Range**: • **0**: Table names are stored as specified and are case sensitive. • **1**: Table names are stored in lowercase and are case insensitive. **Default value**: 1
enterprise_project_id	No	String	**Definition**: Enterprise project ID. **Constraints**: This parameter is mandatory when the enterprise project is enabled. **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
restore_point	No	**MysqlRestorePoint** object	**Definition**: Backup information. **Constraints**: N/A

Table 3-24 MysqlDatastoreInReq

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition**: DB engine. **Constraints**: Only **gaussdb-mysql** is supported. **Range**: gaussdb-mysql **Default value**: N/A
version	Yes	String	**Definition**: DB version. **Constraints**: N/A **Range**: Enter a two-number major version. For details about how to obtain the version, see the **name** field returned in **Querying Version Information About a DB Engine**. **Default value**: N/A

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Table 3-25 MysqlChargeInfo

Parameter	Mandatory	Type	Description
charge_mode	Yes	String	**Definition**: Billing mode. **Constraints**: N/A **Range**: • **prePaid**: yearly/monthly • **postPaid**: pay-per-use **Default value**: postPaid
period_type	No	String	**Definition**: Subscription period type in yearly/monthly mode. **Constraints**: This parameter is only available and mandatory when **charge_mode** is set to **prePaid**. **Range**: • **month**: The service is subscribed by month. • **year**: The service is subscribed by year. **Default value**: N/A

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Parameter	Mandatory	Type	Description
period_num	No	Integer	**Definition**: Subscription period in yearly/monthly mode. **Constraints**: This parameter is only available and mandatory when **charge_mode** is set to **prePaid**. **Range**: • When **period_type** is set to **month**, the parameter value ranges from 1 to 9. • When **period_type** is set to **year**, the parameter value ranges from 1 to 3. **Default value**: N/A
is_auto_renew	No	String	**Definition**: Whether automatic renewal is enabled for yearly/monthly instances. The renewal period is the same as the original period and the order will be automatically paid during the subscription renewal. **Constraints**: This parameter is only available when **charge_mode** is set to **prePaid**. **Range**: • **true**: Automatic renewal is enabled. • **false**: Automatic renewal is disabled. **Default value**: false

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Parameter	Mandatory	Type	Description
is_auto_pay	No	String	**Definition**: Whether the order will be automatically paid after yearly/monthly instances are created. This parameter does not affect the payment method of automatic renewal. **Constraints**: This parameter is only available when **charge_mode** is set to **prePaid**. **Range**: • **true**: The order will be automatically paid. • **false**: The order will be manually paid. **Default value**: true

Table 3-26 MysqlBackupStrategy

Parameter	Mandatory	Type	Description
start_time	Yes	String	**Definition**: Automated backup start time. An automated backup will be triggered within one hour after the time specified by this parameter. **Constraints**: N/A **Range**: The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is the UTC time. 1. The **HH** value must be 1 greater than the **hh** value. 2. The values of **mm** and **MM** must be the same and must be set to **00**. **Default value**: N/A

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Parameter	Mandatory	Type	Description
keep_days	No	String	**Definition**: Retention period of automated backups. **Constraints**: The value must be a positive integer. **Range**: 1–732 **Default value**: N/A

Table 3-27 MysqlTags

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Tag key. **Constraints**: It cannot be an empty string, a space, or left blank. **Range**: The value contains a maximum of 36 Unicode characters. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
value	Yes	String	**Definition**: Tag value. **Constraints**: It can be an empty string. **Range**: The value contains a maximum of 43 Unicode characters. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed. **Default value**: N/A

Table 3-28 MysqlRestorePoint

Parameter	Mandatory	Type	Description
source_instance_id	Yes	String	**Definition**: Source instance ID. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
restore_time	No	Long	**Definition**: Point in time when the backup is to be restored. **Constraints**: The value is a Unix timestamp in milliseconds and represents UTC time. When specifying the parameter, convert the local time from your relevant time zone to a UTC timestamp first. **Range**: To obtain this value, see **Querying the Restoration Time Range**. **Default value**: N/A
backup_id	No	String	**Definition**: Backup file ID. **Constraints**: N/A **Range**: N/A **Default value**: N/A
type	No	String	**Definition**: Backup type. **Constraints**: If this parameter is left blank, **backup_id** cannot be left blank and data is restored using backup files by default. **Range**: If this parameter is not left empty, the value can be: • **backup**: Data is restored using backups. • **timestamp**: Data is restored to a point in time. **Default value**: N/A

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Response Parameters

Status code: 201

Table 3-29 Response body parameters

Parameter	Type	Description
instance	**MysqlInstanceResponse** object	**Definition**: Instance information.
job_id	String	**Definition**: ID of the task for creating an instance. This parameter is only returned for pay-per-use instances. **Range**: N/A
order_id	String	**Definition**: Order ID. This parameter is only returned for yearly/monthly instances. **Range**: N/A

Table 3-30 MysqlInstanceResponse

Parameter	Type	Description
id	String	**Definition**: Instance ID. **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed.
name	String	**Definition**: Instance name. **Range**: The value is the same as the instance name in the request.
status	String	**Definition**: Instance status. **Range**: N/A

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Parameter	Type	Description
datastore	**MysqlDatastore** object	**Definition**: Database information.
mode	String	**Definition**: Instance type. **Range**: The value is the same as the instance type in the request.
configuration_id	String	**Definition**: Parameter template ID. **Range**: N/A
port	String	**Definition**: Database port. **Range**: N/A
backup_strategy	**MysqlBackupStrategy** object	**Definition**: Automated backup policy. **Constraints**: N/A
enterprise_project_id	String	**Definition**: Enterprise project ID. **Range**: The value is the same as the enterprise project ID in the request.
region	String	**Definition**: Region ID. **Range**: The value is the same as the region ID in the request.
availability_zone_mode	String	**Definition**: AZ type. **Range**: The value is the same as the AZ type in the request.

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Parameter	Type	Description
master_availability_zone	String	**Definition**: Primary AZ ID. **Range**: The value is the same as the primary AZ ID in the request.
vpc_id	String	**Definition**: VPC ID, which is the same as the request parameter. **Range**: The value is the same as the VPC ID in the request.
security_group_id	String	**Definition**: Security group ID, which is the same as the request parameter. **Range**: The value is the same as the security group ID in the request.
subnet_id	String	**Definition**: Subnet ID, which is the same as the request parameter. **Range**: The value is the same as the subnet ID in the request.
flavor_ref	String	**Definition**: Specification code. **Range**: The value is the same as the specification code in the request.
charge_info	**MysqlChargeInfo** object	**Definition**: Billing mode, which is yearly/monthly or pay-per-use. By default, pay-per-use is used.

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Table 3-31 MysqlDatastore

Parameter	Type	Description
type	String	**Definition**: DB engine. **Range**: gaussdb-mysql
version	String	**Definition**: DB version. **Range**: N/A

Table 3-32 MysqlBackupStrategy

Parameter	Type	Description
start_time	String	**Definition**: Automated backup start time. An automated backup will be triggered within one hour after the time specified by this parameter. **Constraints**: N/A **Range**: The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is the UTC time. 1. The **HH** value must be 1 greater than the **hh** value. 2. The values of **mm** and **MM** must be the same and must be set to **00**. **Default value**: N/A
keep_days	String	**Definition**: Retention period of automated backups. **Constraints**: The value must be a positive integer. **Range**: 1–732 **Default value**: N/A

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Table 3-33 MysqlChargeInfo

Parameter	Type	Description
charge_mode	String	**Definition**: Billing mode. **Constraints**: N/A **Range**: • **prePaid**: yearly/monthly • **postPaid**: pay-per-use **Default value**: postPaid
period_type	String	**Definition**: Subscription period type in yearly/monthly mode. **Constraints**: This parameter is only available and mandatory when **charge_mode** is set to **prePaid**. **Range**: • **month**: The service is subscribed by month. • **year**: The service is subscribed by year. **Default value**: N/A
period_num	Integer	**Definition**: Subscription period in yearly/monthly mode. **Constraints**: This parameter is only available and mandatory when **charge_mode** is set to **prePaid**. **Range**: • When **period_type** is set to **month**, the parameter value ranges from 1 to 9. • When **period_type** is set to **year**, the parameter value ranges from 1 to 3. **Default value**: N/A

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Parameter	Type	Description
is_auto_renew	String	**Definition**: Whether automatic renewal is enabled for yearly/monthly instances. The renewal period is the same as the original period and the order will be automatically paid during the subscription renewal. **Constraints**: This parameter is only available when **charge_mode** is set to **prePaid**. **Range**: • **true**: Automatic renewal is enabled. • **false**: Automatic renewal is disabled. **Default value**: false
is_auto_pay	String	**Definition**: Whether the order will be automatically paid after yearly/monthly instances are created. This parameter does not affect the payment method of automatic renewal. **Constraints**: This parameter is only available when **charge_mode** is set to **prePaid**. **Range**: • **true**: The order will be automatically paid. • **false**: The order will be manually paid. **Default value**: true

Status code: 400

Table 3-34 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

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Table 3-35 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

NOTE

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

- Creating a DB instance billed at a pay-per-use basis (An automated backup is created during 08:00-09:00.)

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances
{
  "name" : "gaussdb-mysql-instance1",
  "region" : "br-iaas-odin1",
  "charge_info" : {
    "charge_mode" : "postPaid"
  },
  "datastore" : {
    "type" : "gaussdb-mysql",
    "version" : "8.0"
  },
  "mode" : "Cluster",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
  "configuration_id" : "43570e0de32e40c5a15f831aa5ce4176pr07",
  "password" : "*****",
  "backup_strategy" : {
    "start_time" : "08:00-09:00"
  },
  "availability_zone_mode" : "single",
  "slave_count" : 1,
  "enterprise_project_id" : 0
}
```

- Restoring data to a new pay-per-use DB instance using backups

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances
{
  "name" : "gaussdb-mysql-instance2",
  "region" : "br-iaas-odin1",
  "charge_info" : {
    "charge_mode" : "postPaid"
  },
  "datastore" : {
    "type" : "gaussdb-mysql",
    "version" : "8.0"
  },
  "mode" : "Cluster",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
  "configuration_id" : "43570e0de32e40c5a15f831aa5ce4176pr07",
  "password" : "****",
  "backup_strategy" : {
    "start_time" : "08:00-09:00"
```

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```
  },
  "availability_zone_mode" : "single",
  "slave_count" : 1,
  "enterprise_project_id" : 0,
   "restore_point" : {
     "source_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
     "backup_id" : "7ffbf305376b4cbea0ae491257b6aaf9br07",
     "type" : "backup"
   }
}
```

- Restoring data to a new pay-per-use instance through point-in-time recovery (PITR)

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances
{
  "name" : "gaussdb-mysql-instance3",
  "region" : "br-iaas-odin1",
  "charge_info" : {
    "charge_mode" : "postPaid"
  },
  "datastore" : {
    "type" : "gaussdb-mysql",
    "version" : "8.0"
  },
  "mode" : "Cluster",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
  "configuration_id" : "43570e0de32e40c5a15f831aa5ce4176pr07",
  "password" : "xxxxx",
  "backup_strategy" : {
    "start_time" : "08:00-09:00"
  },
  "availability_zone_mode" : "single",
  "slave_count" : 1,
  "enterprise_project_id" : 0,
   "restore_point" : {
     "source_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
     "restore_time" : 1673852043000,
     "type" : "timestamp"
   }
}
```

Example Response

Status code: 201

NOTE

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

Success.

```
{
  "instance" : {
    "id" : "5eebbb4c0f9f4a99b42ed1b6334569aain07",
    "name" : "gaussdb-mysql-instance1",
    "status" : "BUILD",
    "region" : "br-iaas-odin1",
    "charge_info" : {
      "charge_mode" : "postPaid"
    },
    "datastore" : {
      "type" : "gaussdb-mysql",
      "version" : "8.0"
    },
```

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```
    "mode" : "Cluster",
    "port" : "3306",
    "enterprise_project_id" : 0,
    "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
    "vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    "security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
    "configuration_id" : "43570e0de32e40c5a15f831aa5ce4176pr07",
    "backup_strategy" : {
      "start_time" : "08:00-09:00",
      "keep_days" : 7
    },
    "availability_zone_mode" : "single"
  },
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```


Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.2 Rebooting a DB Instance

Function

This API is used to reboot a DB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instances/{instance_id}/restart

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Table 3-36 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 3-37 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-38 Request body parameter

Parameter	Mandatory	Type	Description
delay	No	Boolean	Whether the instance will be rebooted with a delay. • **true**: The instance will be rebooted during the specified maintenance window. • **false** (default value): The instance will be rebooted immediately.

Response Parameters

Status code: 200

Table 3-39 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: Job ID. **Range**: N/A

Status code: 400

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Table 3-40 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-41 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Rebooting a TaurusDB instance in the maintenance window

```
POST https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/
096c0fc43e804757b59946b80dc27f8bin07/restart
{
  "delay" : true
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.3 Deleting/Unsubscribing from a DB Instance

Function

This API is used to delete a DB instance. Before calling this API:

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- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

DELETE /v3/{project_id}/instances/{instance_id}

Table 3-42 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-43 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-44 Response body parameters

Parameter	Type	Description
job_id	String	**Definition**: Job ID. **Range**: N/A

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Parameter	Type	Description
order_id	String	**Definition**: Order ID. This parameter is only returned for yearly/monthly instances. **Range**: N/A

Status code: 400

Table 3-45 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-46 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

- Deleting a DB instance

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/096c0fc43e804757b59946b80dc27f8bin07
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"
}
```

Status Code

For details, see **Status Codes**.

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Error Code

For details, see **Error Codes**.

3.4.4 Creating a Read Replica

Function

This API is used to create a read replica. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instances/{instance_id}/nodes/enlarge

Table 3-47 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-48 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

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Table 3-49 Request body parameters

Parameter	Mandatory	Type	Description
priorities	Yes	Array of integers	**Definition**: Failover priority of a read replica. A smaller value indicates a higher priority. This priority determines the order in which read replicas are promoted when recovering from a primary node failure. Read replicas with the same priority have the same probability of being promoted to the new primary node. You can configure a failover priority for up to 9 read replicas, and the default priority for the remaining read replicas is **-1**, indicating these read replicas cannot be promoted to primary. You can change the failover priority of a read replica. **Constraints**: N/A **Range**: 1–16 **Default value**: N/A

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Parameter	Mandatory	Type	Description
is_auto_pay	No	String	**Definition**: Whether the order will be automatically paid. **Constraints**: This parameter is only available for yearly/monthly instances. It does not affect the payment mode of automatic renewal. **Range**: • **true**: The order will be automatically paid. • **false**: The order will be manually paid. **Default value**: true

Response Parameters

Status code: 201

Table 3-50 Response body parameters

Parameter	Type	Description
instance_id	String	**Definition**: Instance ID, which uniquely identifies an instance. **Range**: N/A
node_names	Array of strings	**Definition**: Node names.
job_id	String	**Definition**: ID of the task for creating a read replica. This parameter is only returned for pay-per-use read replicas. **Range**: N/A

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Parameter	Type	Description
order_id	String	**Definition**: Order ID. This parameter is only returned for yearly/monthly read replicas. **Range**: N/A

Status code: 400

Table 3-51 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-52 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating a read replica for a DB instance

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/nodes/enlarge
{
  "priorities" : [ 1, 2 ]
}
```

Example Response

Status code: 201

Success.

```
{
  "instance_id" : "ba62a0b83a1b42bfab275829d86ac0fdin07",
  "node_names" : [ "gauss-ccf5_node03" ],
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```


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Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.5 Deleting a Read Replica

Function

This API is used to delete a read replica. For multi-AZ deployment, the primary node and remaining read replicas must be located in different AZs after read replicas are deleted. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

DELETE /v3/{project_id}/instances/{instance_id}/nodes/{node_id}

Table 3-53 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A
node_id	Yes	String	**Definition**: Node ID. **Constraints**: N/A **Range**: The value can contain 36 characters, starting with a UUID and ending with **no07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-54 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-55 Response body parameters

Parameter	Type	Description
job_id	String	**Definition**: Job ID. **Range**: N/A

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Parameter	Type	Description
order_id	String	**Definition**: Order ID. This parameter is only returned for yearly/monthly instances. **Range**: N/A

Status code: 400

Table 3-56 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-57 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

- Deleting a read replica of a DB instance

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/3d39c18788b54a919bab633874c159dfin01/nodes/096c0fc43e804757b59946b80dc27f8bin07
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"
}
```

Status Code

For details, see **Status Codes**.

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Error Code

For details, see **Error Codes**.

3.4.6 Scaling up Storage of a Yearly/Monthly DB Instance

Function

This API is used to scale up the storage of a yearly/monthly DB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instances/{instance_id}/volume/extend

Table 3-58 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

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Request Parameters

Table 3-59 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-60 Request body parameters

Parameter	Mandatory	Type	Description
size	Yes	Integer	Storage space after scaling. The initial minimum storage of a yearly/monthly instance is 40 GB. The new storage must be a multiple of 10 and greater than the used storage. The maximum storage is 128,000 GB. The storage must be at least 50 GB during scale-up. The storage must be at least 40 GB during scale-down.

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Parameter	Mandatory	Type	Description
is_auto_pay	No	String	Whether the order will be automatically paid. • **true**: indicates the order will be automatically paid from your account. The default value is **true**. • **false**: indicates the order will be manually paid.

Response Parameters

Status code: 201

Table 3-61 Response body parameters

Parameter	Type	Description
size	Integer	New storage in GB.
order_id	String	Order ID.

Status code: 400

Table 3-62 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-63 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Scaling up the storage of a yearly/monthly DB instance to 50 GB

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```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/volume/extend
{
  "size" : 50
}
```

Example Response

Status code: 201

Success.

```
{
  "size" : 50,
  "order_id" : "CS2001221129LVGUU"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.7 Changing a DB Instance Name

Function

This API is used to change a DB instance name. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/name

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Table 3-64 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-65 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

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Table 3-66 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Instance name. **Constraints**: Instances of the same type can have the same name under the same tenant. **Range**: The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed. **Default value**: N/A
is_modify_node_name	No	String	**Definition**: Whether to synchronously change the node name. **Constraints**: N/A **Range**: • **true**: The node name will be synchronously changed. • **false**: The node name will not be synchronously changed. **Default value**: true

Response Parameters

Status code: 200

Table 3-67 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: ID of the task for changing an instance name. **Range**: N/A

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Status code: 400

Table 3-68 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-69 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the instance name to **gaussdb-name**

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/name
{
  "name" : "gaussdb-name"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "0f6b6a9e-bd39-4e95-9374-e4d134e5a3d1"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

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3.4.8 Resetting a Database Password

Function

This API is used to reset a database password. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instances/{instance_id}/password

Table 3-70 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-71 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

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Table 3-72 Request body parameters

Parameter	Mandatory	Type	Description
password	Yes	String	**Definition**: Database password. **Constraints**: You are advised to enter a strong password to improve security and prevent security risks such as brute force cracking. If you enter a weak password, the system automatically determines that the password is invalid. **Range**: The password can consist of 8 to 32 characters and must contain at least three types of the following: uppercase letters, lowercase letters, digits, and special characters |.~!@#$%^*-_=+?,()& **Default value**: N/A

Response Parameters

Status code: 200

Success.

Status code: 400

Table 3-73 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-74 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

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Parameter	Type	Description
error_msg	String	Error message.

Example Request

Resetting a database password

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/password
{
  "password" : "Test_345612"
}
```

Example Response

None

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.9 Changing DB Instance Specifications

Function

This API is used to change DB instance specifications. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instances/{instance_id}/action

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Table 3-75 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-76 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-77 Request body parameters

Parameter	Mandatory	Type	Description
resize_flavor	Yes	**MysqlResizeFlavor** object	**Definition**: Specification change information. **Constraints**: N/A

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Parameter	Mandatory	Type	Description
is_auto_pay	No	String	**Definition**: Whether the order will be automatically paid when the specifications of yearly/monthly instances are changed. **Constraints**: N/A **Range**: • **true** (default value): The order will be automatically paid from your account. • **false**: The order will be manually paid. **Default value**: N/A

Table 3-78 MysqlResizeFlavor

Parameter	Mandatory	Type	Description
spec_code	Yes	String	**Definition**: Specification code. For details, see **spec_code** in Table 5 in **Querying Database Specifications**. **Constraints**: N/A **Range**: N/A **Default value**: N/A

Response Parameters

Status code: 200

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Table 3-79 Response body parameters

Parameter	Type	Description
job_id	String	**Definition**: ID of the task of changing instance specifications.This parameter is returned only for pay-per-use instances. **Range**: N/A
order_id	String	**Definition**: Order ID. This parameter is returned only for yearly/monthly instances. **Range**: N/A

Status code: 400

Table 3-80 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-81 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the specifications of a DB instance to 4 vCPUs and 32 GB memory

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/action
{
  "resize_flavor" : {
    "spec_code" : "gaussdb.mysql.xlarge.arm.8"
  }
}
```


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Example Response

Status code: 200

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.10 Querying Dedicated Resource Pools

Function

This API is used to obtain information about all dedicated resource pools you created. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/dedicated-resources

Table 3-82 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Table 3-83 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Index offset. The query starts from the next piece of data indexed by this parameter. **Constraints**: The value cannot be a negative number. **Range**: ≥ 0 **Default value**: 0
limit	No	Integer	**Definition**: Number of records to be queried. **Constraints**: The value cannot be a negative number. **Range**: 1–100 **Default value**: 100

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Request Parameters

Table 3-84 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-85 Response body parameters

Parameter	Type	Description
resources	Array of **DedicatedResource** objects	**Definition**: Dedicated resource pool information.

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Parameter	Type	Description
total_count	Integer	**Definition**: Number of dedicated resource pools. **Range**: N/A

Table 3-86 DedicatedResource

Parameter	Type	Description
id	String	**Definition**: ID of the dedicated resource pool. **Range**: N/A
resource_name	String	**Definition**: Name of the dedicated resource pool. **Range**: N/A
engine_name	String	**Definition**: DB engine. **Range**: N/A
architecture	String	**Definition**: CPU architecture. **Range**: N/A
status	String	**Definition**: Status of the dedicated resource pool. **Range**: • **NORMAL**: The dedicated resource pool is normal. • **BUILDING**: The dedicated resource pool is being built. • **EXTENDING**: The dedicated resource pool is being scaled out. • **DELETED**: The dedicated resource pool has been deleted.
capacity	**DedicatedResourceCapacity** object	**Definition**: Capacity of the dedicated resource pool.

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Parameter	Type	Description
availability_zone	Array of strings	**Definition**: AZ where the dedicated resource pool is deployed. **Range**: N/A

Table 3-87 DedicatedResourceCapacity

Parameter	Type	Description
ram	Integer	**Definition**: Memory size, in GB. **Range**: N/A
volume	Long	**Definition**: Storage space, in GB. **Range**: N/A
vcpus	Integer	**Definition**: Number of vCPUs. **Range**: N/A

Status code: 400

Table 3-88 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-89 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

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Parameter	Type	Description
error_msg	String	Error message.

Example Request

Querying dedicated resource pools

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/dedicated-resources
```

Example Response

Status code: 200

Success.

```
{
  "resources" : [ {
    "id" : "1d07f7ba-f140-46a7-b002-58ba22ee6ff3",
    "resource_name" : "testdcc",
    "engine_name" : "gaussdb-mysql",
    "architecture" : "ARM",
    "status" : "NORMAL",
    "capacity" : {
      "ram" : 256,
      "volume" : 10000000,
      "vcpus" : 64
    },
    "availability_zone" : [ "az1xahz" ]
  } ]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.11 Querying Dedicated Resources

Function

This API is used to query dedicated resources. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/dedicated-resource/{dedicated_resource_id}

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Table 3-90 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
dedicated_resource_id	Yes	String	ID of the dedicated resource pool. To obtain this value, see **Querying Dedicated Resource Pools**.

Request Parameters

Table 3-91 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

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Response Parameters

Status code: 200

Table 3-92 Response body parameters

Parameter	Type	Description
id	String	ID of the dedicated resource pool.
resource_name	String	Name of the dedicated resource pool.
engine_name	String	Database name.
availability_zone_ids	Array of strings	AZs.
architecture	String	CPU architecture.
status	String	Status of the dedicated resource pool.
dedicated_compute_info	**DedicatedComputeInfo** object	Compute resource information.
dedicated_storage_info	**DedicatedStorageInfo** object	Storage resource information.

Table 3-93 DedicatedComputeInfo

Parameter	Type	Description
vcpus_total	Integer	Total vCPUs in the dedicated resource pool.
vcpus_used	Integer	Used vCPUs in the dedicated resource pool.
ram_total	Integer	Total memory size of the dedicated resource pool, in GB.
ram_used	Integer	Used memory size of the dedicated resource pool, in GB.
spec_code	String	Compute resource specification code of the dedicated resource pool.
host_num	Integer	Number of compute hosts in the dedicated resource pool.

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Table 3-94 DedicatedStorageInfo

Parameter	Type	Description
spec_code	String	Storage resource specification code of the dedicated resource pool.
host_num	Integer	Number of storage hosts in the dedicated resource pool.

Status code: 400

Table 3-95 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-96 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying dedicated resources

```
GET https://{endpoint}/v3/058497e1c100d3eb2f3cc01160616934/dedicated-resource/6e097c33-d6b9-4ca5-83cb-6cc79dcf4f06
```

Example Response

Status code: 200

Success.

```
{
  "id" : "e097c33-d6b9-4ca5-83cb-6cc79dcf4f06",
  "resource_name" : "test_dcc",
  "engine_name" : "taurus",
  "availability_zone_ids" : [ "az1xahz", "az2xahz" ],
  "architecture" : "ARM",
  "status" : "normal",
  "dedicated_compute_info" : {
    "vcpus_total" : 128,
    "vcpus_used" : 64,
```

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```
    "ram_total" : 512,
    "ram_used" : 256,
    "spec_code" : "gaussdb.mysql.c6.host",
    "host_num" : 1
  },
  "dedicated_storage_info" : {
    "spec_code" : "gaussdb.mysql.dfvpool.30tb.host",
    "host_num" : 1
  }
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.12 Configuring Monitoring by Seconds

Function

This API is used to configure Monitoring by Seconds for instances. You can set the monitoring interval to 1 second or 5 seconds to view the metric values. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/monitor-policy

Table 3-97 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID.

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Request Parameters

Table 3-98 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-99 Request body parameters

Parameter	Mandatory	Type	Description
monitor_switch	Yes	Boolean	Whether to enable Monitoring by Seconds. • **true**: enabled • **false**: disabled

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Parameter	Mandatory	Type	Description
period	No	Integer	Collection period. This parameter is available only when **monitor_switch** is set to **true**. The default value is **5s**. This parameter is not displayed when **monitor_switch** is set to **false**. Values: • **1**: The collection period is 1s. • **5**: The collection period is 5s.

Response Parameters

Status code: 200

Table 3-100 Response body parameter

Parameter	Type	Description
job_id	String	Taskflow ID for modifying Monitoring by Seconds

Status code: 400

Table 3-101 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-102 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

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Example Request

Enabling Monitoring by Seconds and changing its collection period to 1s

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
61a4ea66210545909d74a05c27a7179ein07/monitor-policy
{
  "monitor_switch" : true,
  "period" : 1
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "6b7dd5d4-4590-4f14-b164-a8737ce071d5"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.13 Querying the Configuration of Monitoring by Seconds

Function

This API is used to query the configuration of Monitoring by Seconds. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/monitor-policy

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Table 3-103 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-104 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-105 Response body parameters

Parameter	Type	Description
monitor_switch	Boolean	**Definition**: Whether to enable Monitoring by Seconds. **Range**: • **true**: enabled • **false**: disabled

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Parameter	Type	Description
period	Integer	**Definition**: Collection period. This parameter is only returned when **monitor_switch** is set to **true**. **Range**: • **1**: The collection period is 1s. • **5**: The collection period is 5s.

Status code: 400

Table 3-106 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-107 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the status of Monitoring by Seconds for a DB instance

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/61a4ea66210545909d74a05c27a7179ein07/monitor-policy
```

Example Response

Status code: 200

Success.

```
{
  "monitor_switch" : true,
  "period" : "1"
}
```

Status Code

For details, see **Status Codes**.

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Error Code

For details, see **Error Codes**.

3.4.14 Upgrading the Kernel Version of a DB Instance

Function

This API is used to upgrade the kernel version of a DB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instances/{instance_id}/db-upgrade

Table 3-108 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

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Request Parameters

Table 3-109 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-110 Request body parameter

Parameter	Mandatory	Type	Description
delay	No	Boolean	Whether the instance will be upgraded with a delay. • **true**: The instance will be upgraded during the **specified maintenance window**. • **false** (default value): The instance will be upgraded immediately.

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Response Parameters

Status code: 200

Table 3-111 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: Job ID. **Range**: N/A

Status code: 400

Table 3-112 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-113 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Upgrading the minor version of a DB instance immediately

```
POST https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/
096c0fc43e804757b59946b80dc27f8bin07/db-upgrade
{
  "delay" : false
}
```

Example Response

Status code: 200

Success.

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```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.15 Enabling or Disabling SSL

Function

This API is used to enable or disable SSL. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/ssl-option

Table 3-114 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

Request Parameters

Table 3-115 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-116 Request body parameter

Parameter	Mandatory	Type	Description
ssl_option	Yes	Boolean	**Definition**: Whether to enable SSL. **Constraints**: N/A **Range**: • **true**: SSL is enabled. • **false**: SSL is disabled. **Default value**: N/A

Response Parameters

Status code: 200

Table 3-117 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: Job ID. **Range**: N/A

Status code: 400

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Table 3-118 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-119 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Enabling SSL for a DB instance

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/
096c0fc43e804757b59946b80dc27f8bin07/ssl-option
{
  "ssl_option" : true
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.16 Binding an EIP

Function

This API is used to bind an EIP to a DB instance. Before calling this API:

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- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/public-ips/bind

Table 3-120 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-121 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-122 Request body parameters

Parameter	Mandatory	Type	Description
public_ip	Yes	String	**Definition**: EIP to be bound. **Constraints**: The value must comply with the IP address rule. **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
public_ip_id	Yes	String	**Definition**: EIP ID. **Constraints**: N/A **Range**: N/A **Default value**: N/A

Response Parameters

Status code: 200

Table 3-123 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: Job ID. **Range**: N/A

Status code: 400

Table 3-124 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-125 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

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Example Request

Binding an EIP to a DB instance

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/
096c0fc43e804757b59946b80dc27f8bin07/public-ips/bind
{
  "public_ip" : "10.145.51.214",
  "public_ip_id" : "8403e9cd-a7fa-4288-8b15-c7ceac1etest"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.17 Unbinding an EIP

Function

This API is used to unbind an EIP from a DB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/public-ips/unbind

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Table 3-126 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 3-127 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-128 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: Job ID. **Range**: N/A

Status code: 400

Table 3-129 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-130 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

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Example Request

Unbinding an EIP from a DB instance

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/
096c0fc43e804757b59946b80dc27f8bin07/public-ips/unbind
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.18 Promoting a Read Replica to Primary

Function

This API is used to promote a read replica to the primary node. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/switchover

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Table 3-131 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-132 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

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Table 3-133 Request body parameter

Parameter	Mandatory	Type	Description
node_id	Yes	String	**Definition**: ID of the read replica that will be promoted to the primary. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **no07**. Only letters and digits are allowed. **Default value**: N/A

Response Parameters

Status code: 200

Table 3-134 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: Job ID. **Range**: N/A

Status code: 400

Table 3-135 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

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Table 3-136 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Promoting a read replica to primary

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/
096c0fc43e804757b59946b80dc27f8bin07/switchover
{
  "node_id" : "1801a615b52b4a5697cfe385f6affbf4no07"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.19 Changing a Maintenance Window

Function

This API is used to change a maintenance window. To prevent service interruption, set the maintenance window to off-peak hours. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/ops-window

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Table 3-137 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-138 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-139 Request body parameters

Parameter	Mandatory	Type	Description
start_time	Yes	String	**Definition**: Start time for a maintenance window (UTC time). **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
end_time	Yes	String	**Definition**: End time for a maintenance window (UTC time). **Constraints**: The start time and end time of a maintenance window must be on the hour, and the interval between them must be four hours. **Range**: N/A **Default value**: N/A

Response Parameters

Status code: 200

Success.

Status code: 400

Table 3-140 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-141 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the maintenance window of a DB instance to 22:00-02:00

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/
```

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```
096c0fc43e804757b59946b80dc27f8bin07/ops-window
{
  "start_time" : "22:00",
  "end_time" : "02:00"
}
```

Example Response

Status code: 200

Success.

```
{ }
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.20 Changing a Security Group

Function

This API is used to change the security group of a specified DB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/security-group

Table 3-142 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

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Request Parameters

Table 3-143 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-144 Request body parameter

Parameter	Mandatory	Type	Description
security_group_id	Yes	String	Security group ID.

Response Parameters

Status code: 200

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Table 3-145 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: Job ID. **Range**: N/A

Status code: 400

Table 3-146 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-147 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the security group of a DB instance

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/
096c0fc43e804757b59946b80dc27f8bin07/security-group
{
  "security_group_id" : "054f55b5-946e-4761-a1e3-3be6892827c1"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```


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Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.21 Changing a Private IP Address

Function

This API is used to change the private IP address of a DB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/internal-ip

Table 3-148 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

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Request Parameters

Table 3-149 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-150 Request body parameter

Parameter	Mandatory	Type	Description
internal_ip	Yes	String	Private IP address.

Response Parameters

Status code: 200

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Table 3-151 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: Job ID. **Range**: N/A

Status code: 400

Table 3-152 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-153 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the private IP address of a DB instance

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/
096c0fc43e804757b59946b80dc27f8bin07/internal-ip
{
  "internal_ip" : "192.*.*.*"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```


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Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.22 Changing a Database Port

Function

This API is used to change the database port of a DB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/port

Table 3-154 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

Request Parameters

Table 3-155 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-156 Request body parameter

Parameter	Mandatory	Type	Description
port	Yes	Integer	**Definition**: Port number. **Constraints**: N/A **Range**: 1024 to 65535, excluding 5342 to 5345, 12017, 20000, 20201, 20202, 33062, and 33071 **Default value**: N/A

Response Parameters

Status code: 200

Table 3-157 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: Job ID. **Range**: N/A

Status code: 400

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Table 3-158 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-159 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the database port to 8836

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/
096c0fc43e804757b59946b80dc27f8bin07/port
{
  "port" : 8836
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.23 Modifying the Description of a DB Instance

Function

This API is used to modify the description of a DB instance. Before calling this API:

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- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/alias

Table 3-160 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 3-161 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-162 Request body parameter

Parameter	Mandatory	Type	Description
alias	Yes	String	Instance description. The value can contain 0 to 64 characters, including letters, digits, periods (.), underscores (_), and hyphens (-).

Response Parameters

Status code: 200

Success.

Status code: 400

Table 3-163 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-164 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

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Parameter	Type	Description
error_msg	String	Error message.

Example Request

Modifying the description of a DB instance to **Test_alias**

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/
096c0fc43e804757b59946b80dc27f8bin07/alias
{
  "alias" : "Test_alias"
}
```

Example Response

Status code: 200

Success.

```
{ }
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.4.24 Querying DB Instances

Function

This API is used to query DB instances based on specified criteria. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3.1/{project_id}/instances

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Table 3-165 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A

Table 3-166 Query parameters

Parameter	Mandatory	Type	Description
id	No	String	**Definition**: Instance ID. **Constraints**: The asterisk (*) is reserved for the system. If the instance ID starts with *, it indicates that fuzzy match is performed based on the value following *. Otherwise, exact match is performed based on the instance ID. The value cannot contain only asterisks (*). **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
name	No	String	**Definition**: Instance name. **Constraints**: The asterisk (*) is reserved for the system. If the instance name starts with *, it indicates that fuzzy match is performed based on the value following *. Otherwise, exact match is performed based on the instance name. The value cannot contain only asterisks (*). **Range**: N/A **Default value**: N/A
type	No	String	**Definition**: Instance type. **Constraints**: Currently, only the cluster type is supported. **Range**: Cluster **Default value**: Cluster
datastore_type	No	String	**Definition**: Database type. **Constraints**: Only **gaussdb-mysql** is supported. **Range**: gaussdb-mysql **Default value**: gaussdb-mysql

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Parameter	Mandatory	Type	Description
vpc_id	No	String	**Definition**: VPC ID. To obtain this value, use either of the following methods: • Method 1: Log in to the VPC console and view the VPC ID on the VPC details page. **Constraints**: N/A **Range**: N/A **Default value**: N/A
subnet_id	No	String	**Definition**: Subnet ID. To obtain this value, use either of the following methods: • Method 1: Log in to the VPC console and click the target subnet on the **Subnets** page. You can view the subnet ID on the displayed page. **Constraints**: N/A **Range**: N/A **Default value**: N/A
private_ip	No	String	**Definition**: Private IP address. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
readonly_private_ip	No	String	**Definition**: Private IP address for read. **Constraints**: N/A **Range**: N/A **Default value**: N/A
proxy_ip	No	String	**Definition**: Proxy IP address. **Constraints**: N/A **Range**: N/A **Default value**: N/A
offset	No	Integer	**Definition**: Index offset. The query starts from the next piece of data indexed by this parameter. **Constraints**: The value cannot be a negative number. **Range**: ≥ 0 **Default value**: 0
limit	No	Integer	**Definition**: Number of records to be queried. **Constraints**: The value cannot be a negative number. **Range**: 1–100 **Default value**: 100

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Parameter	Mandatory	Type	Description
tags	No	String	**Definition**: Tag key–value pairs of the instance. • {key} indicates the tag key. • {value} indicates the tag value. **Constraints**: To query instances with multiple tag keys and values, separate key-value pairs with commas (,). The key must be unique. Multiple keys are in AND relationship. **Range**: N/A **Default value**: N/A

Request Parameters

Table 3-167 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-168 Response body parameters

Parameter	Type	Description
instances	Array of **MysqlInstanceListInfoUnifyStatus** objects	**Definition**: Instance list.
total_count	Integer	**Definition**: Total number of records. **Range**: N/A

Table 3-169 MysqlInstanceListInfoUnifyStatus

Parameter	Type	Description
id	String	**Definition**: Instance ID. **Range**: The value contains 36 characters with a suffix of **in07**. Only letters and digits are allowed.

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Parameter	Type	Description
name	String	**Definition**: Instance name. **Range**: N/A
status	String	**Definition**: Instance status. **Range**: • **creating**: An instance is being created. • **normal**: An instance is available. • **abnormal**: An instance is abnormal. • **createfail**: An instance failed to be created.
private_ips	Array of strings	**Definition**: Private IP addresses for write of instances. This parameter is left blank until an ECS is created. **Range**: N/A
proxy_ips	Array of strings	**Definition**: Proxy IP addresses. This parameter is left blank until proxy instances are created for a DB instance. **Range**: N/A
readonly_private_ips	Array of strings	**Definition**: Private IP addresses for read of instances. This parameter is left blank until an ECS is created. **Range**: N/A
public_ips	Array of strings	**Definition**: Public IP addresses. **Range**: N/A
port	String	**Definition**: Database port. **Range**: 1024 to 65535, excluding 5342 to 5345, 12017, 20000, 20201, 20202, 33062, and 33071

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Parameter	Type	Description
type	String	**Definition**: Instance type. **Range**: Cluster
region	String	**Definition**: Region where an instance is deployed. **Range**: N/A
datastore	**MysqlDatastoreWithKernelVersion** object	**Definition**: Database information.
created	String	**Definition**: 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A
updated	String	**Definition**: 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A
db_user_name	String	**Definition**: Default username. **Range**: N/A
vpc_id	String	**Definition**: VPC ID. **Range**: N/A

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Parameter	Type	Description
subnet_id	String	**Definition**: Subnet ID. **Range**: N/A
security_group_id	String	**Definition**: Security group ID. **Range**: N/A
flavor_ref	String	**Definition**: Specification code. **Range**: N/A
flavor_info	**MysqlFlavorInfo** object	**Definition**: Flavor information. **Range**: N/A
volume	**MysqlVolumeInfo** object	**Definition**: Storage disk information.
backup_strategy	**MysqlBackupStrategy** object	**Definition**: Automated backup policy. **Constraints**: N/A
enterprise_project_id	String	**Definition**: Enterprise project ID. **Range**: N/A
time_zone	String	**Definition**: Time zone. **Range**: N/A
charge_info	**MysqlChargeInfo** object	**Definition**: Billing mode, which is yearly/monthly or pay-per-use (default setting).
tags	Array of **InstanceTagItem** objects	**Definition**: Tag list.

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Table 3-170 MysqlDatastoreWithKernelVersion

Parameter	Type	Description
type	String	**Definition**: DB engine. **Range**: gaussdb-mysql
version	String	**Definition**: DB version. **Range**: N/A

Table 3-171 MysqlFlavorInfo

Parameter	Type	Description
vcpus	String	**Definition**: Number of vCPUs. **Range**: N/A
ram	String	**Definition**: Memory size, in GB. **Range**: N/A

Table 3-172 MysqlVolumeInfo

Parameter	Type	Description
type	String	**Definition**: Disk type. **Range**: N/A
size	String	**Definition**: Used disk size, in GB. **Range**: N/A

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Table 3-173 MysqlBackupStrategy

Parameter	Type	Description
start_time	String	**Definition**: Automated backup start time. An automated backup will be triggered within one hour after the time specified by this parameter. **Constraints**: N/A **Range**: The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is the UTC time. 1. The **HH** value must be 1 greater than the **hh** value. 2. The values of **mm** and **MM** must be the same and must be set to **00**. **Default value**: N/A
keep_days	String	**Definition**: Retention days of automated backups. **Constraints**: The value must be a positive integer. **Range**: 1–732 **Default value**: N/A

Table 3-174 MysqlChargeInfo

Parameter	Type	Description
charge_mode	String	**Definition**: Billing mode. **Constraints**: N/A **Range**: • **prePaid**: yearly/monthly • **postPaid**: pay-per-use **Default value**: postPaid

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Parameter	Type	Description
period_type	String	**Definition**: Subscription period type in yearly/monthly mode. **Constraints**: This parameter is only valid and mandatory when **charge_mode** is set to **prePaid**. **Range**: • **month**: The service is subscribed by month. • **year**: The service is subscribed by year. **Default value**: N/A
period_num	Integer	**Definition**: Subscription period in yearly/monthly mode. **Constraints**: This parameter is only valid and mandatory when **charge_mode** is set to **prePaid**. **Range**: • When **period_type** is set to **month**, the value range is 1 to 9. • When **period_type** is set to **year**, the value range is 1 to 3. **Default value**: N/A
is_auto_renew	String	**Definition**: Whether automatic renewal is enabled for yearly/monthly instances. The renewal period is the same as the original period and the order will be automatically paid during the subscription renewal. **Constraints**: This parameter is only valid when **charge_mode** is set to **prePaid**. **Range**: • **true**: Automatic renewal is enabled. • **false**: Automatic renewal is disabled. **Default value**: false

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Parameter	Type	Description
is_auto_pay	String	**Definition**: Whether the order will be automatically paid after yearly/monthly instances are created. This parameter does not affect the payment method of automatic renewal. **Constraints**: This parameter is only valid when **charge_mode** is set to **prePaid**. **Range**: • **true**: The order will be automatically paid. • **false**: The order will be manually paid. **Default value**: true

Table 3-175 InstanceTagItem

Parameter	Type	Description
key	String	**Definition**: Tag key. **Range**: N/A
value	String	**Definition**: Tag value. **Range**: N/A

Status code: 400

Table 3-176 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

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Table 3-177 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying TaurusDB instances whose private IP addresses are 192.*.*.*

```
GET https://{endpoint}/v3.1/054e292c9880d4992f02c0196d3ea468/instances?
id=61a4ea66210545909d74a05c27a7179ein07&name=gaussdb-mysql-
instance01&type=Cluster&datastore_type=gaussdb-mysql&vpc_id=3cedfc54-b105-4652-
a4e0-847b11576b58&subnet_id=c1cfa53c-65d3-431e-8552-326bf310c7ad&private_ip=192.*.*.*&offset=0&limi
t=10&tags=taurusKey1=value1
```

Example Response

Status code: 200

Success.

```
{
  "total_count" : 1,
  "instances" : [ {
    "id" : "61a4ea66210545909d74a05c27a7179ein07",
    "name" : "gaussdb-mysql-instance01",
    "status" : "normal",
    "port" : 3306,
    "type" : "Cluster",
    "private_ips" : [ "192.*.*.*" ],
    "readonly_private_ips" : [ "192.*.*.*", "192.*.*.*" ],
    "proxy_ips" : [ "192.*.*.*" ],
    "db_user_name" : "root",
    "region" : "region-1",
    "datastore" : {
      "type" : "gaussdb-mysql",
      "version" : "8.0",

    },
    "created" : "2018-08-20T02:33:49_0800",
    "updated" : "2018-08-20T02:33:49_0800",
    "volume" : {
      "type" : "POOL",
      "size" : 100
    },
    "vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    "security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
    "flavor_ref" : "gaussdb.mysql.c3.small.4",
    "flavor_info" : {
      "vcpus" : 8,
      "ram" : 16
    },
    "backup_strategy" : {
      "start_time" : "19:00-20:00",
      "keep_days" : 7
    },
    "charge_info" : {
      "charge_mode" : "postPaid"
    },
    "enterprise_project_id" : 0,
```

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```
  "time_zone" : "UTC",
  "tags" : [ {
    "key" : "Key1",
    "value" : "value1"
  } ]
 } ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

3.4.25 Querying Details of a DB Instance

Function

This API is used to query the details of a specified DB instance. Before using this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3.1/{project_id}/instances/{instance_id}

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Table 3-178 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 3-179 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-180 Response body parameter

Parameter	Type	Description
instance	**MysqlInstanceInfoDetailUnifyStatus** object	**Definition**: Instance information.

Table 3-181 MysqlInstanceInfoDetailUnifyStatus

Parameter	Type	Description
id	String	**Definition**: Instance ID. **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed.
name	String	**Definition**: Instance name. **Range**: N/A

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Parameter	Type	Description
project_id	String	**Definition**: Project ID of a tenant in a region. **Range**: N/A
status	String	**Definition**: Instance status. **Range**: • **creating**: The instance is being created. • **normal**: The instance is normal. • **abnormal**: The instance is abnormal. • **createfail**: The instance failed to be created.
port	String	**Definition**: Database port. **Range**: N/A
alias	String	**Definition**: Instance description. **Range**: N/A
type	String	**Definition**: Instance type. **Range**: Cluster
charge_info	**MysqlInstanceChargeInfo** object	**Definition**: Billing information.
node_count	Integer	**Definition**: Number of nodes. **Range**: N/A
datastore	**MysqlDatastoreWithKernelVersion** object	**Definition**: Database information.

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Parameter	Type	Description
backup_used_space	Double	**Definition**: Used backup space, in GB. **Range**: N/A
created	String	**Definition**: 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A
updated	String	**Definition**: 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A
private_write_ips	Array of strings	**Definition**: Private IP addresses for write of instances. **Range**: N/A
private_dns_names	Array of strings	**Definition**: Private domain names of instances. After an instance is created, you need to manually apply for a private domain name, or the private domain name is left blank. **Range**: N/A
public_ips	String	**Definition**: EIPs. **Range**: N/A

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Parameter	Type	Description
db_user_name	String	**Definition**: Default username. **Range**: N/A
vpc_id	String	**Definition**: VPC ID. **Range**: N/A
subnet_id	String	**Definition**: Network ID of the subnet. **Range**: N/A
security_group_id	String	**Definition**: Security group ID. **Range**: N/A
configuration_id	String	**Definition**: ID of the parameter template used for creating an instance or ID of the latest parameter template that is applied to an instance. **Range**: N/A
backup_strategy	**MysqlBackupStrategy** object	**Definition**: Automated backup policy. **Constraints**: N/A
nodes	Array of **MysqlInstanceNodeInfo** objects	**Definition**: Node information.
enterprise_project_id	String	**Definition**: Enterprise project ID. **Range**: N/A

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Parameter	Type	Description
time_zone	String	**Definition**: Time zone. **Range**: N/A
az_mode	String	**Definition**: AZ type. **Range**: • **single**: single AZ • **multi**: multiple AZs
master_az_code	String	**Definition**: Primary AZ. **Range**: N/A
maintenance_window	String	**Definition**: Maintenance window in the UTC format. **Range**: N/A
tags	Array of **MysqlTags** objects	**Definition**: Instance tags. **Range**: N/A
proxies	Array of **MysqlProxyInfo** objects	**Definition**: Proxy information.

Table 3-182 MysqlInstanceChargeInfo

Parameter	Type	Description
charge_mode	String	**Definition**: Billing mode. **Range**: • **prePaid**: yearly/monthly • **postPaid**: pay-per-use

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Parameter	Type	Description
order_id	String	**Definition**: Order ID. This parameter is only returned for yearly/monthly instances. **Range**: N/A

Table 3-183 MysqlDatastoreWithKernelVersion

Parameter	Type	Description
type	String	**Definition**: DB engine. **Range**: gaussdb-mysql
version	String	**Definition**: DB version. **Range**: N/A

Table 3-184 MysqlBackupStrategy

Parameter	Type	Description
start_time	String	**Definition**: Automated backup start time. An automated backup will be triggered within one hour after the time specified by this parameter. **Constraints**: N/A **Range**: The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is the UTC time. 1. The **HH** value must be 1 greater than the **hh** value. 2. The values of **mm** and **MM** must be the same and must be set to **00**. **Default value**: N/A

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Parameter	Type	Description
keep_days	String	**Definition**: Retention period of automated backups. **Constraints**: The value must be a positive integer. **Range**: 1–732 **Default value**: N/A

Table 3-185 MysqlInstanceNodeInfo

Parameter	Type	Description
id	String	**Definition**: Instance ID, which is compliant with the UUID format. **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed.
name	String	**Definition**: Node name. **Range**: N/A
type	String	**Definition**: Node type. **Range**: • **master**: primary node • **slave**: read replica
status	String	**Definition**: Node status. **Range**: N/A
port	Integer	**Definition**: Database port. **Range**: N/A

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Parameter	Type	Description
private_read_ips	Array of strings	**Definition**: Private IP addresses for read of nodes. **Range**: N/A
volume	**MysqlInstanceNodeVolumeInfo** object	**Definition**: Storage disk information. **Range**: N/A
az_code	String	**Definition**: AZ. **Range**: N/A
region_code	String	**Definition**: Region where an instance is deployed. **Range**: N/A
created	String	**Definition**: 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A
updated	String	**Definition**: Update time. The format is the same as that of the **created** field. **Range**: N/A
flavor_id	String	**Definition**: Specification ID. **Range**: N/A
flavor_ref	String	**Definition**: Specification code. **Range**: N/A

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Parameter	Type	Description
max_connections	String	**Definition**: Maximum number of connections. **Range**: N/A
vcpus	String	**Definition**: Number of vCPUs. **Range**: N/A
ram	String	**Definition**: Memory size, in GB. **Range**: N/A
need_restart	Boolean	**Definition**: Whether to reboot the instance for the parameter modifications to take effect. **Range**: N/A
priority	Integer	**Definition**: Failover priority. **Range**: –1 or 1–16

Table 3-186 MysqlInstanceNodeVolumeInfo

Parameter	Type	Description
type	String	**Definition**: Disk type. **Range**: N/A
used	String	**Definition**: Used disk size, in GB. **Range**: N/A

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Parameter	Type	Description
size	Long	**Definition**: Storage space of a yearly/monthly instance, in GB. **Range**: N/A

Table 3-187 MysqlTags

Parameter	Type	Description
key	String	**Definition**: Tag key. **Constraints**: It cannot be an empty string, a space, or left blank. **Range**: The value contains a maximum of 36 Unicode characters. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed. **Default value**: N/A
value	String	**Definition**: Tag value. **Constraints**: It can be an empty string. **Range**: The value contains a maximum of 43 Unicode characters. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed. **Default value**: N/A

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Table 3-188 MysqlProxyInfo

Parameter	Type	Description
pool_id	String	**Definition**: Proxy instance ID. **Range**: N/A
name	String	**Definition**: Proxy instance name. **Range**: N/A
address	String	**Definition**: Proxy address. **Range**: N/A

Status code: 400

Table 3-189 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-190 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying details of a specified DB instance

```
GET https://{endpoint}/v3.1/3cedfc54-b105-4652-a4e0-847b11576628/instances/
d738399de028480fabb2b8120d4e01a4in07
```


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Example Response

Status code: 200

Success.


```
{
  "instance" : {
    "id" : "d738399de028480fabb2b8120d4e01a4in07",
    "name" : "gaussdb-mysql-instance01",
    "alias" : "",
    "status" : "normal",
    "project_id" : "3cedfc54-b105-4652-a4e0-847b11576628",
    "enterprise_project_id" : 0,
    "type" : "Cluster",
    "charge_info" : {
      "charge_mode" : "postPaid",
      "order_id" : ""
    },
    "node_count" : 2,
    "datastore" : {
      "type" : "gaussdb-mysql",
      "version" : "8.0",

    },
    "created" : "2022-07-14T16:26:58+0800",
    "updated" : "2022-07-18T14:20:33+0800",
    "public_ips" : "10.*.*.*",
    "private_write_ips" : [ "192.*.*.*" ],

    "db_user_name" : "root",
    "port" : 3306,
    "vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    "security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
    "backup_strategy" : {
      "start_time" : "19:00-20:00",
      "keep_days" : 7
    },
    "nodes" : [ {
      "id" : "799a0f2fa49a4151bf9f7063c1fbba36no07",
      "name" : "gauss-d616-lb07_node01",
      "type" : "master",
      "status" : "normal",
      "port" : 3306,
      "private_read_ips" : [ "192.*.*.*" ],
      "volume" : {
        "type" : "POOL",
        "used" : 0.07
      },
      "az_code" : "az1",
      "region_code" : "region-1",
      "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
      "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
      "max_connections" : 1500,
      "vcpus" : 1,
      "ram" : 4,
      "need_restart" : false,
      "priority" : 1,
      "created" : "2022-07-14T16:26:58+0800",
      "updated" : "2022-07-18T09:24:18+0800"
    }, {
      "id" : "799a0f2fa49a4151bf9f7063c1fbba35no07",
      "name" : "gauss-d616-lb07_node02",
      "type" : "slave",
      "status" : "normal",
      "port" : 3306,
      "private_read_ips" : [ "192.*.*.*" ],
      "volume" : {
```


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```
      "type" : "POOL",
      "used" : 0.07
    },
    "az_code" : "az1*",
    "region_code" : "region-1",
    "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
    "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
    "max_connections" : 1500,
    "vcpus" : 1,
    "ram" : 4,
    "need_restart" : false,
    "priority" : 1,
    "created" : "2022-07-14T16:26:58+0800",
    "updated" : "2022-07-18T09:36:18+0800"
  } ],
  "time_zone" : "UTC+08:00",
  "backup_used_space" : 0.24,
  "az_mode" : "single",
  "master_az_code" : "az1",
  "maintenance_window" : "18:00-22:00",
  "tags" : [ ],
  "configuration_id" : "53570e0de54e40c5a15f331aa5sd2176pr07",
  "dedicated_resource_id" : "",
  "proxies" : [ {
    "pool_id" : "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",
    "address" : "192.*.*.*",
    "name" : "proxy-name"
  } ]
 }
}
```


Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

3.4.26 Querying Details of DB Instances in Batches

Function

This API is used to query details of DB instances in batches. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3.1/{project_id}/instances/details

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Table 3-191 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A

Table 3-192 Query parameter

Parameter	Mandatory	Type	Description
instance_ids	Yes	String	**Definition**: List of instance IDs. **Constraints**: The list can contain a maximum of 20 instance IDs. **Range**: An instance ID can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-193 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-194 Response body parameter

Parameter	Type	Description
instances	Array of **MysqlInstanceInfoDetailUnifyStatus** objects	**Definition**: Instance details.

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Table 3-195 MysqlInstanceInfoDetailUnifyStatus

Parameter	Type	Description
id	String	**Definition**: Instance ID. **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed.
name	String	**Definition**: Instance name. **Range**: N/A
project_id	String	**Definition**: Project ID of a tenant in a region. **Range**: N/A
status	String	**Definition**: Instance status. **Range**: • **creating**: An instance is being created. • **normal**: An instance is normal. • **abnormal**: An instance is abnormal. • **createfail**: An instance failed to be created.
port	String	**Definition**: Database port. **Range**: N/A
alias	String	**Definition**: Instance description. **Range**: N/A
type	String	**Definition**: Instance type. **Range**: Cluster
charge_info	**MysqlInstanceChargeInfo** object	**Definition**: Billing information.

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Parameter	Type	Description
node_count	Integer	**Definition**: Number of nodes. **Range**: N/A
datastore	**MysqlDatastoreWithKernelVersion** object	**Definition**: Database information.
backup_used_space	Double	**Definition**: Used backup space, in GB. **Range**: N/A
created	String	**Definition**: 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A
updated	String	**Definition**: 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A
private_write_ips	Array of strings	**Definition**: Private IP addresses for write of instances. **Range**: N/A
public_ips	String	**Definition**: EIPs. **Range**: N/A

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Parameter	Type	Description
db_user_name	String	**Definition**: Default username. **Range**: N/A
vpc_id	String	**Definition**: VPC ID. **Range**: N/A
subnet_id	String	**Definition**: Network ID of the subnet. **Range**: N/A
security_group_id	String	**Definition**: Security group ID. **Range**: N/A
configuration_id	String	**Definition**: ID of the parameter template used for creating an instance or ID of the latest parameter template that is applied to an instance. **Range**: N/A
backup_strategy	**MysqlBackupStrategy** object	**Definition**: Automated backup policy. **Constraints**: N/A
nodes	Array of **MysqlInstanceNodeInfo** objects	**Definition**: Node information.
enterprise_project_id	String	**Definition**: Enterprise project ID. **Range**: N/A

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Parameter	Type	Description
time_zone	String	**Definition**: Time zone. **Range**: N/A
az_mode	String	**Definition**: AZ type. **Range**: • **single**: single AZ • **multi**: multiple AZs
master_az_code	String	**Definition**: Primary AZ. **Range**: N/A
maintenance_window	String	**Definition**: Maintenance window in the UTC format. **Range**: N/A
tags	Array of **MysqlTags** objects	**Definition**: Instance tags. **Range**: N/A
proxies	Array of **MysqlProxyInfo** objects	**Definition**: Proxy information.

Table 3-196 MysqlInstanceChargeInfo

Parameter	Type	Description
charge_mode	String	**Definition**: Billing mode. **Range**: • **prePaid**: yearly/monthly • **postPaid**: pay-per-use

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Parameter	Type	Description
order_id	String	**Definition**: Order ID. This parameter is only returned for yearly/monthly instances. **Range**: N/A

Table 3-197 MysqlDatastoreWithKernelVersion

Parameter	Type	Description
type	String	**Definition**: DB engine. **Range**: gaussdb-mysql
version	String	**Definition**: DB version. **Range**: N/A

Table 3-198 MysqlBackupStrategy

Parameter	Type	Description
start_time	String	**Definition**: Automated backup start time. An automated backup will be triggered within one hour after the time specified by this parameter. **Constraints**: N/A **Range**: The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is the UTC time. 1. The **HH** value must be 1 greater than the **hh** value. 2. The values of **mm** and **MM** must be the same and must be set to **00**. **Default value**: N/A

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Parameter	Type	Description
keep_days	String	**Definition**: Retention period of automated backups. **Constraints**: The value must be a positive integer. **Range**: 1–732 **Default value**: N/A

Table 3-199 MysqlInstanceNodeInfo

Parameter	Type	Description
id	String	**Definition**: Instance ID, which is compliant with the UUID format. **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed.
name	String	**Definition**: Node name. **Range**: N/A
type	String	**Definition**: Node type. **Range**: • **master**: primary node • **slave**: read replica
status	String	**Definition**: Node status. **Range**: N/A
port	Integer	**Definition**: Database port. **Range**: N/A

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Parameter	Type	Description
private_read_ips	Array of strings	**Definition**: Private IP addresses for read of nodes. **Range**: N/A
volume	**MysqlInstanceNodeVolumeInfo** object	**Definition**: Storage disk information. **Range**: N/A
az_code	String	**Definition**: AZ. **Range**: N/A
region_code	String	**Definition**: Region where an instance is deployed. **Range**: N/A
created	String	**Definition**: 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A
updated	String	**Definition**: Update time. The format is the same as that of the **created** field. **Range**: N/A
flavor_id	String	**Definition**: Specification ID. **Range**: N/A
flavor_ref	String	**Definition**: Specification code. **Range**: N/A

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Parameter	Type	Description
max_connections	String	**Definition**: Maximum number of connections. **Range**: N/A
vcpus	String	**Definition**: Number of vCPUs. **Range**: N/A
ram	String	**Definition**: Memory size, in GB. **Range**: N/A
need_restart	Boolean	**Definition**: Whether to reboot the instance for the parameter modifications to take effect. **Range**: N/A
priority	Integer	**Definition**: Failover priority. **Range**: –1 or 1–16

Table 3-200 MysqlInstanceNodeVolumeInfo

Parameter	Type	Description
type	String	**Definition**: Disk type. **Range**: N/A
used	String	**Definition**: Used disk size, in GB. **Range**: N/A

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Parameter	Type	Description
size	Long	**Definition**: Storage space of a yearly/monthly instance, in GB. **Range**: N/A

Table 3-201 MysqlTags

Parameter	Type	Description
key	String	**Definition**: Tag key. **Constraints**: It cannot be an empty string, a space, or left blank. **Range**: The value contains a maximum of 36 Unicode characters. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed. **Default value**: N/A
value	String	**Definition**: Tag value. **Constraints**: It can be an empty string. **Range**: The value contains a maximum of 43 Unicode characters. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed. **Default value**: N/A

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Table 3-202 MysqlProxyInfo

Parameter	Type	Description
pool_id	String	**Definition**: Proxy instance ID. **Range**: N/A
name	String	**Definition**: Proxy instance name. **Range**: N/A
address	String	**Definition**: Proxy address. **Range**: N/A

Status code: 400

Table 3-203 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-204 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying details of DB instances in batches

```
GET https://{endpoint}/v3.1/97b026aa9cc4417888c14c84a1ad9860/instances/details?
instance_ids=11684a0e59e94bceba7880d58cfb07b5in07
```

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Example Response

Status code: 200

Success.


```
{
  "instances" : [ {
    "id" : "11684a0e59e94bceba7880d58cfb07b5in07",
    "name" : "gaussdb-mysql-instance01",
    "alias" : "",
    "status" : "normal",
    "project_id" : "3cedfc54-b105-4652-a4e0-847b11576628",
    "enterprise_project_id" : 0,
    "type" : "Cluster",
    "charge_info" : {
      "charge_mode" : "postPaid",
      "order_id" : ""
    },
    "node_count" : 2,
    "datastore" : {
      "type" : "gaussdb-mysql",
      "version" : "8.0",

    },
    "created" : "2022-07-14T16:26:58+0800",
    "updated" : "2022-07-18T14:20:33+0800",
    "public_ips" : "10.*.*.*",
    "private_write_ips" : [ "192.*.*.*" ],

    "db_user_name" : "root",
    "port" : 3306,
    "vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    "security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
    "backup_strategy" : {
      "start_time" : "19:00-20:00",
      "keep_days" : 7
    },
    "nodes" : [ {
      "id" : "799a0f2fa49a4151bf9f7063c1fbba36no07",
      "name" : "gauss-d616-lb07_node01",
      "type" : "master",
      "status" : "normal",
      "port" : 3306,
      "private_read_ips" : [ "192.*.*.*" ],
      "volume" : {
        "type" : "POOL",
        "used" : 0.07
      },
      "az_code" : "az1xahz",
      "region_code" : "region-1",
      "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
      "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
      "max_connections" : 1500,
      "vcpus" : 1,
      "ram" : 4,
      "need_restart" : false,
      "priority" : 1,
      "created" : "2022-07-14T16:26:58+0800",
      "updated" : "2022-07-18T09:24:18+0800"
    }, {
      "id" : "799a0f2fa49a4151bf9f7063c1fbba35no07",
      "name" : "gauss-d616-lb07_node02",
      "type" : "slave",
      "status" : "normal",
      "port" : 3306,
      "private_read_ips" : [ "192.*.*.*" ],
      "volume" : {
```


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```
      "type" : "POOL",
      "used" : 0.07
    },
    "az_code" : "az1",
    "region_code" : "region-1",
    "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
    "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
    "max_connections" : 1500,
    "vcpus" : 1,
    "ram" : 4,
    "need_restart" : false,
    "priority" : 1,
    "created" : "2022-07-14T16:26:58+0800",
    "updated" : "2022-07-18T09:36:18+0800"
  } ],
  "time_zone" : "UTC+08:00",
  "backup_used_space" : 0.24,
  "az_mode" : "single",
  "master_az_code" : "az1",
  "maintenance_window" : "18:00-22:00",
  "tags" : [ ],
  "configuration_id" : "53570e0de54e40c5a15f331aa5sd2176pr07",
  "dedicated_resource_id" : "",
  "proxies" : [ {
    "pool_id" : "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",
    "address" : "192.*.*.*",
    "name" : "proxy-name"
  } ]
 } ]
}
```


Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

3.4.27 Modifying a Recycling Policy

Function

This API is used to modify a recycling policy. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/recycle-policy

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Table 3-205 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

Request Parameters

Table 3-206 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value.
Content-Type	Yes	String	Content type. Value: **application/json**
X-Language	No	String	Language.

Table 3-207 Request body parameter

Parameter	Mandatory	Type	Description
recycle_policy	No	**Table 3-208** object	Recycling policy.

Table 3-208 RecyclePolicy

Parameter	Mandatory	Type	Description
retention_period_in_days	Yes	String	Retention period, in days. Range: 1–7

Response Parameters

Status code: 200

Success.

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Status code: 400

Table 3-209 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-210 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Setting the retention period to 5 days during the recycling policy modification

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/recycle-policy

{
  "recycle_policy" : {
    "retention_period_in_days" : 5
  }
}
```

Example Response

None

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

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3.4.28 Querying a Recycling Policy

Function

This API is used to query a recycling policy. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/recycle-policy

Table 3-211 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

Request Parameters

Table 3-212 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value.
Content-Type	Yes	String	Content type. Value: **application/json**
X-Language	No	String	Language.

Response Parameters

Status code: 200

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Table 3-213 Response body parameter

Parameter	Type	Description
recycle_policy	**RecyclePolicy** object	Recycling policy.

Table 3-214 RecyclePolicy

Parameter	Type	Description
retention_period_in_days	String	Retention period, in days. Value range: 1–7.

Status code: 400

Table 3-215 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-216 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying a recycling policy

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/recycle-policy
```

Example Response

Status code: 200

Success.

```
{
  "recycle_policy" : {
    "retention_period_in_days" : 5
```

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```
  }
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

3.4.29 Querying Instances in the Recycle Bin

Function

This API is used to query instances in the recycle bin. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/recycle-info

Table 3-217 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

Table 3-218 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records to be queried. The default value is **10**. The value must be a positive integer. The minimum value is **1** and the maximum value is **100**.

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Parameter	Mandatory	Type	Description
offset	No	Integer	Index offset. If **offset** is set to *N*, the query starts from the *N*+1 piece of data. The value is **0** by default, indicating that the query starts from the first piece of data. The value must be a number but cannot be a negative number.

Request Parameters

Table 3-219 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value.
Content-Type	Yes	String	Content type. Value: **application/json**
X-Language	No	String	Language.

Response Parameters

Status code: 200

Table 3-220 Response body parameters

Parameter	Type	Description
total_count	String	Total number of records.
instances	Array of **RecycleInstanceV3** objects	Instances in the recycle bin.

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Table 3-221 RecycleInstanceV3

Parameter	Type	Description
id	String	Instance ID.
name	String	Instance name.
ha_mode	String	Instance type.
engine_name	String	Engine name.
engine_version	String	Engine version.
pay_model	String	Billing mode.
create_at	Integer	Creation time.
deleted_at	Integer	Deletion time.
volume_type	String	Storage type.
volume_size	String	Storage space.
data_vip	String	Virtual IP address of the data plane.
data_vip_ipv6	String	IPv6 address of the data plane.
enterprise_project_id	String	Enterprise project ID.
enterprise_project_name	String	Enterprise project name.
backup_level	String	Backup level.
recycle_backup_id	String	Backup ID.
recycle_status	String	Recycling status.

Status code: 400

Table 3-222 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

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Table 3-223 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying instances in the recycle bin

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/recycle-info
```

Example Response

Status code: 200

Success.


```
{
  "total_count" : 2,
  "instances" : [ {
    "id" : "090e539b45e047ee9cc17750b321ef7ein07",
    "name" : "gauss-dd-single",
    "ha_mode" : "StandSingle",
    "engine_name" : "taurus",
    "engine_version" : "2.0.51.240300",
    "pay_model" : "0",
    "create_at" : 1712656933705,
    "deleted_at" : 1712659228276,
    "volume_type" : "",
    "volume_size" : "0",
    "data_vip" : "172.16.1.234",
    "data_vip_ipv6" : null,
    "enterprise_project_id" : "0",
    "enterprise_project_name" : "default",
    "backup_level" : "2",
    "recycle_backup_id" : "c62e218ccd6c49098baa925453c65e29br07",
    "recycle_status" : "Active"
  }, {
    "id" : "632423cc56c348bd967b3a03e7abdab9in07",
    "name" : "gauss-dd-single",
    "ha_mode" : "StandSingle",
    "engine_name" : "taurus",
    "engine_version" : "2.0.51.240300",
    "pay_model" : "0",
    "create_at" : 1712658210524,
    "deleted_at" : 1712659158927,
    "volume_type" : "",
    "volume_size" : "0",
    "data_vip" : "172.16.1.194",
    "data_vip_ipv6" : null,
    "enterprise_project_id" : "0",
    "enterprise_project_name" : "default",
    "backup_level" : "2",
    "recycle_backup_id" : "70d03dc459304f7298c0f5b49286f37cbr07",
    "recycle_status" : "Active"
  } ]
}
```


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Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

3.4.30 Changing Node Names in Batches

Function

This API is used to change node names in batches. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/nodes/name

Table 3-224 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID.

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Request Parameters

Table 3-225 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value.
Content-Type	Yes	String	Content type. Value: **application/json**
X-Language	No	String	Language.

Table 3-226 Request body parameter

Parameter	Mandatory	Type	Description
node_list	Yes	Array of **SingleNodeInfo** objects	Node information.

Table 3-227 SingleNodeInfo

Parameter	Mandatory	Type	Description
node_id	Yes	String	Node ID.
name	Yes	String	Node name. The value can contain 4 to 128 characters. Only digits, letters, hyphens (-), and underscores (_) are allowed.

Response Parameters

Status code: 200

Table 3-228 Response body parameter

Parameter	Type	Description
job_id	String	Workflow ID.

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Status code: 400

Table 3-229 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-230 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing node names in batches

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/
61a4ea66210545909d74a05c27a7179ein07/nodes/name

{
  "node_list" : [ {
    "node_id" : "799a0f2fa49d4151bf2f7063c1fbba36no07",
    "name" : "gauss-cdf5_node03"
  } ]
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "dff1f289-4d23-4942-8d9f-463ea07c010d"
}
```

Status Code

Status Code	Description
200	Success.

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Status Code	Description
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

3.4.31 Querying Historical Records of Auto Scaling

Function

This API is used to query historical records of auto scaling. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/auto-scaling/history

Table 3-231 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID.

Table 3-232 Query parameters

Parameter	Mandatory	Type	Description
limit	No	String	Number of records to be queried. The default value is **20**.

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Parameter	Mandatory	Type	Description
offset	No	String	Index offset. If **offset** is set to *N*, the query starts from the *N*+1 piece of data. The value is **0** by default, indicating that the query starts from the first piece of data. The value must be a number but cannot be a negative number.

Request Parameters

Table 3-233 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value.
Content-Type	Yes	String	Content type. Value: **application/json**
X-Language	No	String	Language.

Response Parameters

Status code: 200

Table 3-234 Response body parameters

Parameter	Type	Description
total_count	String	Total number of records.
records	Array of **AutoScalingRecordInfo** objects	Historical records of auto scaling.

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Table 3-235 AutoScalingRecordInfo

Parameter	Type	Description
id	String	Record ID.
instance_id	String	Instance ID.
instance_name	String	Instance name.
scaling_type	String	Scaling type.
original_value	String	Original value.
target_value	String	Target value.
result	String	Scaling result.
create_at	String	Scaling time.

Status code: 400

Table 3-236 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-237 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying historical records of auto scaling

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/auto-scaling/history
```

Example Response

Status code: 200

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Success.

```
{
  "total_count" : 1,
  "records" : [ {
    "id" : "2f5f3eeb-16c7-4b0c-bd44-4b2968275abe",
    "instance_id" : "94bb6ce031424d02a1c61019d1d2298bin07",
    "instance_name" : "gaussdbformysql-ins01",
    "scaling_type" : "ENLARGE_FLAVOR",
    "original_value" : "gaussdb.mysql.medium.x86.4",
    "target_value" : "gaussdb.mysql.large.x86.4",
    "result" : "SUCCESSFUL",
    "create_at" : "2023-04-30 16:47:40.877"
  } ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

3.4.32 Changing the Failover Priority of a Read Replica

Function

This API is used to change the failover priority of a read replica. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/nodes/{node_id}/priority

Table 3-238 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID.

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Parameter	Mandatory	Type	Description
node_id	Yes	String	Node ID.

Request Parameters

Table 3-239 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value.
Content-Type	Yes	String	Content type. Value: **application/json**
X-Language	No	String	Language.

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Table 3-240 Request body parameter

Parameter	Mandatory	Type	Description
priority	Yes	String	Failover priority. The value can be **-1** or any number ranging from 1 to 16. If the value is a positive number, a smaller value indicates a higher priority. This priority determines the order in which read replicas are promoted when recovering from a primary node failure. Read replicas with the same priority have the same probability of being promoted to the new primary node. If the value is **-1**, the read replica does not participate in a failover. After the priority of a read replica is set to **-1**, ensure that a single-AZ instance still has at least one read replica or that the remaining nodes of a cross-AZ instance are in different AZs.

Response Parameters

Status code: 200

Table 3-241 Response body parameter

Parameter	Type	Description
job_id	String	Workflow ID.

Status code: 400

Table 3-242 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

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Table 3-243 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the read replica failover priority to 2

```
PUT https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07//nodes/ss62c18799854a919bab633874c159dfno01/priority

{
  "priority" : 2
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "b054f3e1-64f8-4219-ad48-f9ac494c6983"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

3.4.33 Querying an EIP

Function

This API is used to query an EIP. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

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URI

GET /v3/{project_id}/instances/{instance_id}/eip

Table 3-244 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-245 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
Content-Type	Yes	String	**Definition**: Content type. **Constraints**: N/A **Range**: application/json **Default value**: application/json
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

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Table 3-246 Response body parameters

Parameter	Type	Description
can_enable_public_access	Boolean	**Definition**: Whether public access can be enabled. **Range**: • **true**: Public access can be enabled. • **false**: Public access cannot be enabled.
id	String	**Definition**: EIP ID. **Range**: N/A
type	String	**Definition**: Network type of the EIP. **Range**: • **5_bgp**: dynamic BGP • **5_sbgp**: static BGP • **5_youxuanbgp**: premium BGP
port_id	String	**Definition**: Port ID. **Range**: N/A
public_ip_address	String	**Definition**: EIP. **Range**: N/A
private_ip_address	String	**Definition**: Private IP address bound to the EIP **Range**: N/A

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Parameter	Type	Description
status	String	**Definition**: EIP status. **Range**: • **FREEZED**: The EIP is frozen. • **BIND_ERROR**: The EIP failed to be bound. • **BINDING**: The EIP is being bound. • **PENDING_DELETE**: The EIP is being released. • **PENDING_CREATE**: The EIP is being created. • **NOTIFYING**: The EIP is being created. • **NOTIFY_DELETE**: The EIP is being released. • **PENDING_UPDATE**: The EIP is being updated. • **DOWN**: The EIP has not been bound. • **ACTIVE**: The EIP has been bound. • **ELB**: The EIP has been bound to a load balancer. • **VPN**: The EIP has been bound to a VPN. • **ERROR**: The EIP is failed.
tenant_id	String	**Definition**: Tenant ID. **Range**: N/A
create_time	String	**Definition**: Time when the EIP was assigned. **Range**: N/A
bandwidth_id	String	**Definition**: Bandwidth ID. **Range**: N/A
bandwidth_name	String	**Definition**: Bandwidth name. **Range**: N/A

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Parameter	Type	Description
bandwidth_size	String	**Definition**: Bandwidth, in Mbit/s **Range**: N/A
bandwidth_share_type	String	**Definition**: Bandwidth type. **Range**: • **PER**: dedicated bandwidth • **WHOLE**: shared bandwidth
profile	Object	**Definition**: Additional parameters, including the order ID and product ID. If **profile** is not empty, the EIP is billed on a yearly/monthly basis. **Range**: N/A

Status code: 400

Table 3-247 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-248 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying an EIP

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/
12a49c2dc32648df8dd25e2976f70180in07/eip
```

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Example Response

Status code: 200

Success.


```
{
  "can_enable_public_access" : true,
  "id" : "45a0ed37-cfa7-4403-8aeb-d720b4e831cf",
  "type" : "5_bgp",
  "port_id" : "2c02dc5b-a136-4921-b7ad-27e084548616",
  "public_ip_address" : "10.83.35.151",
  "private_ip_address" : "172.16.1.137",
  "status" : "ACTIVE",
  "tenant_id" : "23a50154cf494ec9ad6883979a12db0a",
  "create_time" : "2024-04-09 13:42:11",
  "bandwidth_id" : "2a4b2bc5-2a0a-42df-8f13-2fbe3d8bbbb2",
  "bandwidth_name" : "bandwidth-d3f4",
  "bandwidth_size" : 1,
  "bandwidth_share_type" : "PER",
  "profile" : { }
}
```


Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

3.5 Backup Management

3.5.1 Configuring a Same-Region Backup Policy

Function

This API is used to configure a same-region backup policy. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/backups/policy/update

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Table 3-249 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-250 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-251 Request body parameters

Parameter	Mandatory	Type	Description
backup_policy	Yes	**MysqlBackupPolicy** object	**Definition**: Database backup policy. **Constraints**: N/A

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Table 3-252 MysqlBackupPolicy

Parameter	Mandatory	Type	Description
start_time	Yes	String	**Definition**: Backup time window. Automated backups will be triggered during the backup time window. **Constraints**: N/A **Range**: The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is the UTC time. 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 **00**. **Default value**: N/A
keep_days	Yes	Integer	**Definition**: Backup retention days. **Constraints**: N/A **Range**: 1–732. You can also contact customer service to extend the retention period to up to 3,660 days. **Default value**: N/A

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Parameter	Mandatory	Type	Description
period	Yes	String	**Definition**: Backup cycle. Data will be automatically backed up on the selected days every week. **Constraints**: The value is a list of numbers separated by commas (,), where each number plus one represents a day of the week for automated backups. For example, **1,2,3,4,5,6,7** indicates that data is backed up every day from Tuesday to Monday. **Range**: You can select multiple numbers from 1 to 7 and separate them with commas (,). **Default value**: N/A

Response Parameters

Status code: 200

Table 3-253 Response body parameters

Parameter	Type	Description
status	String	**Definition**: Status. **Range**: N/A
instance_id	String	**Definition**: Instance ID, which is compliant with the UUID format. **Range**: The value is the same as the instance ID in the request.

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Parameter	Type	Description
instance_name	String	**Definition**: Instance name. **Range**: Instance name corresponding to the instance ID

Status code: 400

Table 3-254 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-255 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying the automated backup policy of the DB instance (Data is backed up from 19:00 to 20:00 every Monday to Friday. Backup files are stored for seven days.)

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/backups/policy/update
{
  "backup_policy" : {
    "keep_days" : 7,
    "start_time" : "19:00-20:00",
    "period" : "1,2,3,4,5"
  }
}
```

Example Response

Status code: 200

Success.

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```
{
  "status" : "COMPLETED",
  "instance_id" : "ba62a0b83a1b42bfab275829d86ac0fdin07",
  "instance_name" : "gauss-mysql"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.5.2 Creating a Manual Backup

Function

This API is used to create a manual backup. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/backups/create

Table 3-256 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range:** The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-257 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-258 Request body parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed.

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Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Backup name. **Range**:
description	No	String	**Definition**: Backup description. **Range**: The description can consist of up to 256 characters. It cannot contain carriage returns or any of the following special characters: !<''=''>&

Response Parameters

Status code: 201

Table 3-259 Response body parameters

Parameter	Type	Description
backup	**backup** object	**Definition**: Backup information.
job_id	String	**Definition**: Job ID. **Range**: N/A

Table 3-260 backup

Parameter	Type	Description
id	String	**Definition**: Backup ID. **Range**: N/A

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Parameter	Type	Description
name	String	**Definition**: Backup name. **Range**: The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed.
description	String	**Definition**: Backup description. **Range**: The description can consist of up to 256 characters. It cannot contain carriage returns or any of the following special characters: !<"='>&
begin_time	String	**Definition**: Backup start time in the "yyyy-mm-ddThh:mm:ssZ" format, where "T" indicates the start time of the time field, and "Z" indicates the time zone offset. **Range**: N/A
status	String	**Definition**: Backup status. **Range**: • **BUILDING**: backup in progress • **COMPLETED**: backup completed • **FAILED**: backup failed • **AVAILABLE**: backup available
type	String	**Definition**: Backup type. **Range**: **manual**: manual full backup
instance_id	String	**Definition**: Instance ID. **Range**: The value is the same as the instance ID in the request.

Status code: 400

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Table 3-261 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-262 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating a manual backup

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/backups/create
{
  "instance_id" : "07033b125fd94a8a96896f8bcfee6ddain07",
  "name" : "backup-1",
  "description": "Manual backup"
}
```

Example Response

Status code: 201

Success.

```
{
  "backup" : {
    "id" : "2f4ddb93-b901-4b08-93d8-1d2e472f30fe",
    "name" : "backup-1",
    "description": "Manual backup"
    "begin_time" : "2020-07-07T01:17:05+0800",
    "status" : "BUILDING",
    "type" : "manual",
    "instance_id" : "07033b125fd94a8a96896f8bcfee6ddain07"
  },
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

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3.5.3 Querying Full Backups

Function

This API is used to query backups according to search criteria. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/backups

Table 3-263 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Table 3-264 Query parameters

Parameter	Mandatory	Type	Description
instance_id	No	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A
backup_id	No	String	**Definition**: Backup ID, which uniquely identifies a backup. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **br07**. Only letters and digits are allowed. **Default value**: N/A
backup_type	No	String	**Definition**: Backup type. **Constraints**: N/A **Range**: • **auto**: automated full backup • **manual**: manual full backup **Default value**: N/A

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Parameter	Mandatory	Type	Description
offset	No	String	**Definition**: Index offset. The query starts from the next piece of data indexed by this parameter. **Constraints**: The value must be an integer and cannot be a negative number. **Range**: ≥0 **Default value**: 0
limit	No	String	**Definition**: Number of records to be queried. **Constraints**: The value must be an integer and cannot be a negative number. **Range**: 1–100 **Default value**: 100
begin_time	No	String	**Definition**: Query 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Constraints**: N/A **Range**: The time is earlier than the current time. **Default value**: N/A

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Parameter	Mandatory	Type	Description
end_time	No	String	**Definition**: Query 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Constraints**: N/A **Range**: The time is earlier than the current time and later than the start time. **Default value**: N/A
name	No	String	**Definition**: Backup name. **Constraints**: N/A **Range**: The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
instance_name	No	String	**Definition**: Instance name. **Constraints**: N/A **Range**: The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed. **Default value**: N/A

Request Parameters

Table 3-265 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-266 Response body parameters

Parameter	Type	Description
backups	Array of **backups** objects	**Definition**: Backup information. **Range**: N/A
total_count	Long	**Definition**: Total number of backup files. **Range**: ≥0

Table 3-267 backups

Parameter	Type	Description
id	String	**Definition**: Backup ID. **Range**: The value can contain 36 characters with a suffix of **br07**. Only letters and digits are allowed.

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Parameter	Type	Description
name	String	**Definition**: Backup name. **Range**: The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed.
begin_time	String	**Definition**: Backup 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A
end_time	String	**Definition**: Backup 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A
status	String	**Definition**: Backup status. **Range**: • **BUILDING**: backup in progress • **COMPLETED**: backup completed • **FAILED**: backup failed • **AVAILABLE**: backup available
take_up_time	Integer	**Definition**: Backup duration in minutes. **Range**: ≥ 0

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Parameter	Type	Description
type	String	**Definition**: Backup type. **Range**: • **auto**: automated full backup • **manual**: manual full backup
size	Long	**Definition**: Backup size in MB. **Range**: ≥0
datastore	**MysqlDatastore** object	**Definition**: Database information.
instance_id	String	**Definition**: Instance ID, which uniquely identifies an instance. **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed.
instance_name	String	**Definition**: Instance name. **Range**: The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed.
backup_level	String	**Definition**: Backup level. This parameter is returned when level-1 backup is enabled. **Range**: • **0**: Backup being created or creation failed • **1**: level-1 backup • **2**: level-2 backup
description	String	**Definition**: Description of the backup file. **Range**: N/A

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Table 3-268 MysqlDatastore

Parameter	Type	Description
type	String	**Definition**: DB engine. **Range**: gaussdb-mysql
version	String	**Definition**: DB version. **Range**: 8.0

Status code: 400

Table 3-269 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-270 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying automated backups generated from July 6, 2020 to July 16, 2020

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/backups?
instance_id=43e4feaab48f11e89039fa163ebaa7e4br01&backup_id=c0c9f155c7b7423a9d30f0175998b63bbr0
1&backup_type=auto&offset=0&limit=10&begin_time=2020-07-06T10:41:14+0800&end_time=2020-07-16T1
0:41:14+0800
```

Example Response

Status code: 200

Success.

```
{
  "backups" : [ {
```


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```
    "id" : "1fe4feaab48f11e6654hfa163eba87e4b66u",
    "name" : "TaurusDB-gauss-e747-20200705185048266",
    "begin_time" : "2018-08-06T12:41:14+0800",
    "end_time" : "2018-08-06T12:45:14+0800",
    "take_up_time" : 2,
    "status" : "COMPLETED",
    "type" : "auto",
    "size" : 2803,
    "datastore" : {
      "type" : "GaussDB(for MySQL)",
      "version" : "8.0"
    },
    "instance_id" : "43e4feaab48f11e89039fa163ebaa7e4br01",
    "instance_name" : "TaurusDB-gauss-e747",
    "backup_level" : "2"
  } ],
  "total_count" : 1
}
```


Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.5.4 Querying an Automated Backup Policy

Function

This API is used to query an automated backup policy. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/backups/policy

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Table 3-271 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-272 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-273 Response body parameters

Parameter	Type	Description
backup_policy	**BackupPolicy** object	**Definition**: Backup policy information.

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Table 3-274 BackupPolicy

Parameter	Type	Description
keep_days	Integer	**Definition**: Backup retention days. **Range**: 1–732. You can also contact customer service to extend the retention period to up to 3,660 days.
start_time	String	**Definition**: Backup time window. Automated backups will be triggered during the backup time window. **Range**: The value must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format.
period	String	**Definition**: Backup cycle. Data will be automatically backed up on the selected days every week. **Range**: The value is a list of numbers separated by commas (,), where each number plus one represents a day of the week for automated backups. For example, **1,2,3,4,5,6,7** indicates that data is backed up every day from Tuesday to Monday.
retention_num_backup_level1	Integer	**Definition**: Number of retained level-1 backups. This parameter is returned when level-1 backup is enabled. **Range**: N/A

Status code: 400

Table 3-275 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

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Table 3-276 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the automated backup policy of a DB instance

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/
61a4ea66210545909d74a05c27a7179ein07/backups/policy
```

Example Response

Status code: 200

Success.

```
{
  "backup_policy" : {
    "keep_days" : "7,",
    "start_time" : "19:00-20:00",
    "period" : "1,2",
    "retention_num_backup_level1" : 1
  }
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.5.5 Deleting a Manual Backup

Function

This API is used to delete a manual backup. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

DELETE /v3/{project_id}/backups/{backup_id}

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Table 3-277 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
backup_id	Yes	String	**Definition**: Backup file ID. **Constraints**: N/A **Range**: To obtain this value, see **Querying Full Backups**. **Default value**: N/A

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Request Parameters

Table 3-278 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-279 Response body parameters

Parameter	Type	Description
backup_id	String	**Definition**: Backup ID. **Range**: The value is the same as that of the input parameter.

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Parameter	Type	Description
backup_name	String	**Definition**: Backup name. **Range**: Backup name corresponding to the backup ID.

Status code: 400

Table 3-280 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-281 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting a manual backup

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/backups/
1fe4feaab48f11e6654hfa163eba87e4b66
```

Example Response

Status code: 200

Success.

```
{
  "backup_id" : "b1182ccdda034f2b9535f3dca5c47e71br07",
  "backup_name" : "backup-f3c1"
}
```

Status Code

For details, see **Status Codes**.

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Error Code

For details, see **Error Codes**.

3.5.6 Restoring Data to the Original Instance or an Existing Instance

Function

This API is used to restore data to the original instance or an existing instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

Constraints

DB instances will not be displayed unless they have the same DB engine type, version, and table name case sensitivity as the original DB instance.

URI

POST /v3/{project_id}/instances/restore

Table 3-282 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-283 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-284 Request body parameters

Parameter	Mandatory	Type	Description
target_instance_id	Yes	String	**Definition**: Target instance ID. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
source_instance_id	Yes	String	**Definition**: Source instance ID. **Constraints**: N/A **Range**: N/A **Default value**: N/A
type	Yes	String	**Definition**: Restoration mode. **Constraints**: N/A **Range**: • **backup**: Data is restored using backups. In this case, **backup_id** is mandatory. • **timestamp**: Data is restored through PITR. In this case, **restore_time** is mandatory. **Default value**: N/A
backup_id	No	String	**Definition**: ID of the backup to be restored. This parameter must be specified when a backup is used for restoration. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
restore_time	No	Long	**Definition**: Backup time point. **Constraints**: The value is a Unix timestamp in milliseconds and represents UTC time. When specifying the parameter, convert the local time from your relevant time zone to a UTC timestamp first. **Range**: To obtain this value, see **Querying the Restoration Time Range**. **Default value**: N/A

Response Parameters

Status code: 200

Table 3-285 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: Workflow ID. **Range**: N/A

Status code: 400

Table 3-286 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

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Table 3-287 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

- Restoring data to the original instance using a backup file

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore
{
  "target_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
  "source_instance_id" : "690e08a7c3854c218df0e59de3b0c6cein07",
  "backup_id" : "7ffbf305376b4cbea0ae491257b6aaf9br07",
  "type" : "backup"
}
```

- Restoring data to the original instance through PITR

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore
{
  "target_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
  "source_instance_id" : "690e08a7c3854c218df0e59de3b0c6cein07",
  "restore_time" : 1673852043000,
  "type" : "timestamp"
}
```

- Restoring data to an existing instance using a backup file

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore
{
  "target_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
  "source_instance_id" : "690e08a7c3854c218df0e59de3b0c6cein07",
  "backup_id" : "be4ddfd7e2b94640b5e2cb44efb30b22br07",
  "type" : "backup"
}
```

- Restoring data to an existing instance through PITR

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore
{
  "target_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
  "source_instance_id" : "690e08a7c3854c218df0e59de3b0c6cein07",
  "restore_time" : 1673852043000,
  "type" : "timestamp"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

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3.5.7 Querying the Restoration Time Range

Function

This API is used to query the restoration time range of an instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/restore-time

Table 3-288 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Table 3-289 Query parameter

Parameter	Mandatory	Type	Description
date	No	String	Date to be queried. The value is in the "yyyy-mm-dd" format, and the time zone is UTC.

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Request Parameters

Table 3-290 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-291 Response body parameter

Parameter	Type	Description
restore_times	Array of **RestoreTimeInfo** objects	Restoration time ranges.

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Table 3-292 RestoreTimeInfo

Parameter	Type	Description
start_time	Integer	Start time of the restoration time range in the UNIX timestamp format. The unit is millisecond and the time zone is UTC.
end_time	Integer	End time of the restoration time range in the UNIX timestamp format. The unit is millisecond and the time zone is UTC.

Status code: 400

Table 3-293 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-294 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the restoration time range of the DB instance on January 31, 2023

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
096c0fc43e804757b59946b80dc27f8bin07/restore-time?date=2023-01-31
```

Example Response

Status code: 200

Success.

```
{
  "restore_times" : [ {
    "start_time" : 1675149246000,
    "end_time" : 1675094400000
  } ]
}
```


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Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.5.8 Querying Incremental Backups

Function

This API is used to query incremental backups. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/incremental-backups

Table 3-295 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Table 3-296 Query parameters

Parameter	Mandatory	Type	Description
offset	No	String	Index offset. If **offset** is set to *N*, the resource query starts from the N+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	String	Number of records to be queried. Value: **10** (default value), **20**, or **50**.

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Parameter	Mandatory	Type	Description
begin_time	No	String	Query start 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. When **begin_time** is not empty, **end_time** is mandatory.
end_time	No	String	Query end time. The format is "yyyy-mm-ddThh:mm:ssZ" and the end time must be later than the start time. **T** is the separator between the calendar and the hourly notation of time. **Z** indicates the time zone offset. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. When **end_time** is not empty, **begin_time** is mandatory.

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Request Parameters

Table 3-297 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-298 Response body parameters

Parameter	Type	Description
backups	Array of **IncrementalBackups** objects	Backup information.
total_count	Long	Total number of backup files.

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Table 3-299 IncrementalBackups

Parameter	Type	Description
id	String	Backup ID.
name	String	Backup name.
begin_time	String	Backup 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**.
end_time	String	Backup 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**.
size	Number	Backup size, in KB.
instance_id	String	Instance ID.

Status code: 400

Table 3-300 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-301 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying incremental backups

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```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/
61a4ea66210545909d74a05c27a7179ein07/incremental-backups?
offset=0&limit=10&begin_time=2022-07-06T10:41:14+0800&end_time=2022-07-16T10:41:14+0800
```

Example Response

Status code: 200

Success.

```
{
  "backups" : [ {
    "id" : "f0d2aea28d26t4848b8c84ed3fea1822fbr07",
    "name" : "TaurusDB--20230728181555006",
    "begin_time" : "2022-07-07T12:41:14+0800",
    "end_time" : "2022-07-08T12:45:14+0800",
    "size" : 0.109375,
    "instance_id" : "61a4ea66210545909d74a05c27a7179ein07"
  } ],
  "total_count" : 1
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.5.9 Restoring Tables to a Specified Point in Time

Function

This API is used to restore tables to a specified point in time. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instances/{instance_id}/backups/restore/tables

Table 3-302 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

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Request Parameters

Table 3-303 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-304 Request body parameters

Parameter	Mandatory	Type	Description
restore_time	Yes	String	Backup time, in timestamp format.
restore_tables	Yes	Array of **CreateRestoreDatabaseTableInfo** objects	Database information.

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Parameter	Mandatory	Type	Description
last_table_info	No	String	Whether the data is restored to the most recent table. • **true**: most recent table. • **false** (default value): time-specific table

Table 3-305 CreateRestoreDatabaseTableInfo

Parameter	Mandatory	Type	Description
database	Yes	String	Database name.
tables	Yes	Array of **CreateRestoreTableInfo** objects	Table information.

Table 3-306 CreateRestoreTableInfo

Parameter	Mandatory	Type	Description
old_name	Yes	String	Original table name before the restoration.
new_name	Yes	String	Table name after the restoration.

Response Parameters

Status code: 200

Table 3-307 Response body parameter

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 3-308 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

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Parameter	Type	Description
error_msg	String	Error message.

Status code: 500

Table 3-309 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Restoring tables to a point in time

```
POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/
61a4ea66210545909d74a05c27a7179ein07/backups/restore/tables

{
  "restore_time" : 1690890940000,
  "last_table_info" : true,
  "restore_tables" : [ {
    "database" : "test_db_1",
    "tables" : [ {
      "new_name" : "t3_1690899914000",
      "old_name" : "t3"
    } ]
  } ]
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "9c77973c-9332-4fbe-bb4d-b76760dbc9b2"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.6 Parameter Template Management

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3.6.1 Querying Parameter Templates

Function

This API is used to query parameter templates, including all databases' default and custom parameter templates. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/configurations

Table 3-310 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Table 3-311 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Index offset. The query starts from the next piece of data indexed by this parameter. **Constraints**: The value cannot be a negative number. **Range**: ≥0 **Default value**: 0
limit	No	Integer	**Definition**: Number of records to be queried. **Constraints**: The value cannot be a negative number. **Range**: 1–100 **Default value**: 100

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Request Parameters

Table 3-312 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-313 Response body parameters

Parameter	Type	Description
configurations	Array of **ConfigurationSummary** objects	**Definition**: Parameter template information.

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Parameter	Type	Description
total_count	Integer	**Definition**: Total number of parameter templates. **Range**: ≥0

Table 3-314 ConfigurationSummary

Parameter	Type	Description
id	String	**Definition**: Parameter template ID. **Range**: The value can contain 36 characters, starting with a UUID and ending with **pr07**. Only letters and digits are allowed.
name	String	**Definition**: Parameter template name. **Range**: N/A
datastore_version_name	String	**Definition**: DB version. **Range**: 8.0
datastore_name	String	**Definition**: Database name. **Range**: GaussDB(for MySQL)
created	String	**Definition**: Time when the parameter template was created. 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A

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Parameter	Type	Description
updated	String	**Definition**: Time when the parameter template was updated. 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A
user_defined	Boolean	**Definition**: Whether the parameter template is a custom template. **Range**: • **false**: The parameter template is a default template. • **true**: The parameter template is a custom template.
description	String	**Definition**: Parameter template description. **Range**: N/A

Status code: 400

Table 3-315 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-316 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

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Example Request

Querying parameter templates

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/configurations
```

Example Response

Status code: 200

Success.


```
{
  "total_count" : 1,
  "configurations" : [ {
    "id" : "887ea0d1bb0843c49e8d8e5a09a95652pr07",
    "name" : "configuration_test",
    "description" : "configuration_test",
    "datastore_version_name" : "8.0",
    "datastore_name" : "GaussDB(for MySQL)",
    "created" : "2019-05-15T11:53:34+0000",
    "updated" : "2019-05-15T11:53:34+0000",
    "user_defined" : true
  }, {
    "id" : "3bc1e9cc0d34404b9225ed7a58fb284epr07",
    "name" : "Default-GaussDBforMySQL",
    "description" : "Default parameter template for GaussDBforMySQL",
    "datastore_version_name" : "8.0",
    "datastore_name" : "GaussDB(for MySQL)",
    "created" : "2019-05-27T03:38:51+0000",
    "updated" : "2019-05-27T03:38:51+0000",
    "user_defined" : false
  } ]
}
```


Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.6.2 Creating a Parameter Template

Function

This API is used to create a parameter template. The following information needs to be configured: template name, description, DB engine version, and parameter values. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

Constraints

- This API is only available for cluster TaurusDB instances (dedicated edition).
- The name of the custom parameter template is case-sensitive and must be different from the name of an existing or a default parameter template.

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- The value of **parameter_values** in the custom parameter template must be within the default value range of the specified database version.

URI

POST /v3/{project_id}/configurations

Table 3-317 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A

Request Parameters

Table 3-318 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-319 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Parameter template name. **Constraints**: N/A **Range**: The template name can contain 1 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), underscores (_), and periods (.) are allowed. **Default value**: N/A
description	No	String	**Definition**: Parameter template description. **Constraints**: N/A **Range**: The description can consist of up to 256 characters. It cannot contain carriage returns or any of the following special characters: !<''=>& **Default value**: Empty

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Parameter	Mandatory	Type	Description
parameter_values	No	Map<String,String>	**Definition**: Mapping between parameter names and parameter values. You can specify parameter values based on a default parameter template. **Constraints**: N/A
datastore	No	**DatastoreResult** object	**Definition**: Database object.

Table 3-320 DatastoreResult

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition**: DB engine. **Constraints**: N/A **Range**: Only **gaussdb-mysql** is supported. **Default value**: N/A
version	Yes	String	**Definition**: Database version. For details about how to obtain the version, see the **name** field returned in **Querying Version Information About a DB Engine**. **Constraints**: N/A **Range**: N/A **Default value**: N/A

Response Parameters

Status code: 200

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Table 3-321 Response body parameter

Parameter	Type	Description
configurations	**ConfigurationSummary2** object	Parameter template information.

Table 3-322 ConfigurationSummary2

Parameter	Type	Description
id	String	**Definition**: Parameter template ID. **Range**: The value can contain 36 characters, starting with a UUID and ending with **pr07**. Only letters and digits are allowed.
name	String	**Definition**: Parameter template name. **Range**: The value is the same as the parameter template name in the request.
description	String	**Definition**: Parameter template description. **Range**: The value is the same as the parameter template description in the request.
datastore	**DatastoreResult** object	**Definition**: Database object.
created	String	**Definition**: 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. **Range**: N/A

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Parameter	Type	Description
updated	String	**Definition**: 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. **Range**: N/A

Table 3-323 DatastoreResult

Parameter	Type	Description
type	String	**Definition**: DB engine. **Constraints**: N/A **Range**: Only **gaussdb-mysql** is supported. **Default value**: N/A
version	String	**Definition**: Database version. For details about how to obtain the version, see the **name** field returned in **Querying Version Information About a DB Engine**. **Constraints**: N/A **Range**: N/A **Default value**: N/A

Status code: 400

Table 3-324 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

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Status code: 500

Table 3-325 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating a parameter template (There are up to 10 concurrent connections for the account.)

```
POST https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/configurations
{
  "name" : "myparameter",
  "description" : "parameter1",
  "datastore" : {
    "type" : "gaussdb-mysql",
    "version" : "8.0"
  },
  "parameter_values" : {
    "max_user_connections" : "10"
  }
}
```

Example Response

Status code: 200

Success.

```
{
  "configurations" : {
    "id" : "887ea0d1bb0843c49e8d8e5a09a95652pr07",
    "name" : "myparameter",
    "description" : "parameter1",
    "datastore" : {
      "type" : "gaussdb-mysql",
      "version" : "8.0"
    },
    "created" : "2022-05-15T11:53:34+0000",
    "updated" : "2022-05-15T11:53:34+0000"
  }
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

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3.6.3 Deleting a Parameter Template

Function

This API is used to delete a specified parameter template. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

Constraints

- This API is only available for TaurusDB.
- Default parameter templates cannot be deleted.

URI

DELETE /v3/{project_id}/configurations/{configuration_id}

Table 3-326 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
configuration_id	Yes	String	**Definition**: Parameter template ID. To obtain this value, see **Querying Parameter Templates**. **Constraints**: N/A **Range**: The value can contain 36 characters, starting with a UUID and ending with **pr07**. Only letters and digits are allowed. **Default value**: N/A

Request Parameters

Table 3-327 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-328 Response body parameters

Parameter	Type	Description
configuration_id	String	**Definition**: Parameter template ID. **Range**: The value is the same as the parameter template ID in the request.
configuration_name	String	**Definition**: Parameter template name. **Range**: The template name can contain 1 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), underscores (_), and periods (.) are allowed.

Status code: 400

Table 3-329 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

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Status code: 500

Table 3-330 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting a parameter template

```
DELETE https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/configurations/43570e0de32e40c5a15f831aa5ce4176pr07
```

Example Response

Status code: 200

Success.

```
{
  "configuration_id" : "887ea0d1bb0843c49e8d8e5a09a95652pr07",
  "configuration_name" : "myparameter"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.6.4 Obtaining Details About a Parameter Template

Function

This API is used to obtain parameter details of a specified parameter template. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

Constraints

This API is only available for cluster TaurusDB instances (dedicated edition).

URI

GET /v3/{project_id}/configurations/{configuration_id}

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Table 3-331 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A
configuration_id	Yes	String	**Definition**: Parameter template ID. **Constraints**: N/A **Range**: To obtain this value, see **Querying Parameter Templates**. **Default value**: N/A

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Request Parameters

Table 3-332 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-333 Response body parameters

Parameter	Type	Description
configurations	**ConfigurationSummary2** object	**Definition**: Parameter template information.
parameter_values	Map<String,String>	**Definition**: Mapping between parameter names and parameter values. You can specify parameter values based on a default parameter template.

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Table 3-334 ConfigurationSummary2

Parameter	Type	Description
id	String	**Definition**: Parameter template ID. **Range**: The value can contain 36 characters, starting with a UUID and ending with **pr07**. Only letters and digits are allowed.
name	String	**Definition**: Parameter template name. **Range**: The value is the same as the parameter template name in the request.
description	String	**Definition**: Parameter template description. **Range**: The value is the same as the parameter template description in the request.
datastore	**DatastoreResult** object	**Definition**: Database object.
created	String	**Definition**: 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. **Range**: N/A
updated	String	**Definition**: 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. **Range**: N/A

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Table 3-335 DatastoreResult

Parameter	Type	Description
type	String	**Definition**: DB engine. **Constraints**: N/A **Range**: Only **gaussdb-mysql** is supported. **Default value**: N/A
version	String	**Definition**: Database version. For details about how to obtain the version, see the **name** field returned in **Querying Version Information About a DB Engine**. **Constraints**: N/A **Range**: N/A **Default value**: N/A

Status code: 400

Table 3-336 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-337 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

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Example Request

Obtaining details about a parameter template

```
GET https://{endpoint}/v3/0549b4a43100d4f32f51c01c2fe4acdb/configurations/
7a8d539ba30f43adaf1b16d08b1df4bdpr07
```

Example Response

Status code: 200

Success.

```
{
  "configurations" : {
    "id" : "887ea0d1bb0843c49e8d8e5a09a95652pr07",
    "name" : "myparameter",
    "description" : "parameter1",
    "datastore" : {
      "type" : "gaussdb-mysql",
      "version" : "8.0"
    },
    "created" : "2022-05-15T11:53:34+0000",
    "updated" : "2022-05-15T11:53:34+0000"
  },
  "parameter_values" : {
    "binlog_rows_query_log_events" : "OFF",
    "mount_vip_when_failover" : "ON",
    "log-bin" : "ON",
    "gtid_mode" : "ON",
    "enforce_gtid_consistency" : "ON",
    "innodb_online_alter_log_max_size" : "134217728",
    "binlog_gtid_simple_recovery" : "ON",
    "max_user_connections" : "10"
  }
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.6.5 Modifying Parameters in a Parameter Template

Function

This API is used to modify parameters in a specified parameter template, including parameter names, descriptions, and values. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

Constraints

- This API is only available for cluster TaurusDB instances (dedicated edition).
- Default parameter templates cannot be modified.

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- The name of the modified parameter template must be different from that of a default parameter template.
- The parameter values to be modified must be within the default value range of the specified database version.

URI

PUT /v3/{project_id}/configurations/{configuration_id}

Table 3-338 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
configuration_id	Yes	String	**Definition**: Parameter template ID. **Constraints**: N/A **Range**: To obtain this value, see **Querying Parameter Templates**. **Default value**: N/A

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Request Parameters

Table 3-339 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

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Table 3-340 Request body parameters

Parameter	Mandatory	Type	Description
name	No	String	**Definition**: Parameter template name. **Constraints**: N/A **Range**: The template name can contain 1 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), underscores (_), and periods (.) are allowed. The parameter template description, parameter name, and parameter value mapping cannot be empty at the same time. **Default value**: N/A
description	No	String	**Definition**: Parameter template description. **Constraints**: N/A **Range**: The description can consist of up to 256 characters. It cannot contain carriage returns or any of the following special characters: !<''=>& **Default value**: Empty
parameter_values	No	Map<String,String>	**Definition**: Mapping between parameter names and parameter values. You can specify parameter values based on a default parameter template. If this parameter is not specified, the original parameter information is retained. **Constraints**: N/A

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Response Parameters

Status code: 200

Table 3-341 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: ID of the task for modifying a parameter template. **Range**: N/A

Status code: 400

Table 3-342 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-343 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying parameters in a parameter template

```
PUT https://{endpoint}/v3/0549b4a43100d4f32f51c01c2fe4acdb/configurations/
7a8d539ba30f43adaf1b16d08b1df4bdpr07
{
  "parameter_values" : {
    "max_user_connections" : "4"
  }
}
```


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Example Response

Status code: 200

Success.

```
{
  "job_id" : "f6cb21fe-186a-4931-b20d-764ced1f1f6b"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.6.6 Applying a Parameter Template

Function

This API is used to apply a parameter template to a specified DB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/configurations/{configuration_id}/apply

Table 3-344 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
configuration_id	Yes	String	**Definition**: Parameter template ID. To obtain this value, see **Querying Parameter Templates**. **Constraints**: N/A **Range**: The value can contain 36 characters, starting with a UUID and ending with **pr07**. Only letters and digits are allowed. **Default value**: N/A

Request Parameters

Table 3-345 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-346 Request body parameter

Parameter	Mandatory	Type	Description
instance_ids	Yes	Array of strings	**Definition**: List of instance IDs. **Constraints**: The list contains a maximum of 10 instance IDs.

Response Parameters

Status code: 200

Table 3-347 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: ID of the task for applying a parameter template. **Range**: N/A

Status code: 400

Table 3-348 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

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Parameter	Type	Description
error_msg	String	Error message.

Status code: 500

Table 3-349 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Applying a parameter template

```
PUT https://{endpoint}/v3/0549b4a43100d4f32f51c01c2fe4acdb/configurations/
7a8d539ba30f43adaf1b16d08b1df4bdpr07/apply
{
  "instance_ids" : ["1c3f12d626824d4ca357104def25a455in07"]
}
```

Example Response

Status code: 200

Success.

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

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.6.7 Replicating a Parameter Template

Function

This API is used to replicate a parameter template. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

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URI

POST /v3/{project_id}/configurations/{configuration_id}/copy

Table 3-350 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
configuration_id	Yes	String	**Definition**: ID of a custom parameter template. **Constraints**: N/A **Range**: To obtain this value, see **Querying Parameter Templates**. After the request is processed, the value of **id** in the response body is the value of **configuration_id**. Enter the ID of the configuration whose **user_defined** is set to **true**. **Default value**: N/A

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Request Parameters

Table 3-351 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

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Table 3-352 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Name of a parameter template generated after replication. **Constraints**: N/A **Range**: The template name can contain 1 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), underscores (_), and periods (.) are allowed. **Default value**: N/A
description	No	String	**Definition**: Description of a parameter template generated after replication **Constraints**: N/A **Range**: The description can consist of up to 256 characters. It cannot contain carriage returns or any of the following special characters: >!<"&'= **Default value**: Empty

Response Parameters

Status code: 200

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Table 3-353 Response body parameter

Parameter	Type	Description
configuration_id	String	**Definition**: Parameter template ID. **Range**: The value can contain 36 characters, starting with a UUID and ending with **pr07**. Only letters and digits are allowed.

Status code: 400

Table 3-354 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-355 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Replicating a parameter template

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/
a2069d40256f40078c52d90d6a91ee63pr07/copy

{
  "name" : "paramTemplate-new",
  "description" : "new-parameter-group"
}
```

Example Response

Status code: 200

Success.

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```
{
  "configuration_id" : "7b4e07852bd54016906e89461b3182cdpr02"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.6.8 Comparing Parameter Templates

Function

This API is used to compare two parameter templates. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/configurations/comparison

Table 3-356 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-357 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

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Table 3-358 Request body parameters

Parameter	Mandatory	Type	Description
source_configuration_id	Yes	String	**Definition**: ID of the source parameter template for comparison. **Constraints**: N/A **Range**: To obtain this value, see **Querying Parameter Templates**. After the request is processed, the value of **id** in the response body is the value of **source_configuration_id**. **Default value**: N/A
target_configuration_id	Yes	String	**Definition**: ID of the target parameter template for comparison. **Constraints**: N/A **Range**: To obtain this value, see **Querying Parameter Templates**. After the request is processed, the value of **id** in the response body is the value of **target_configuration_id**. **Default value**: N/A

Response Parameters

Status code: 200

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Table 3-359 Response body parameter

Parameter	Type	Description
differences	Array of **ParamGroupParameterDifferences** objects	**Definition**: Differences between parameters.

Table 3-360 ParamGroupParameterDifferences

Parameter	Type	Description
parameter_name	String	**Definition**: Parameter name. **Range**: N/A
source_value	String	**Definition**: Parameter value in the source parameter template. **Range**: N/A
target_value	String	**Definition**: Parameter value in the target parameter template. **Range**: N/A

Status code: 400

Table 3-361 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

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Table 3-362 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Comparing parameter templates

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/comparison

{
  "source_configuration_id" : "a2069d40256f40078c52d90d6a91ee63pr07",
  "target_configuration_id" : "0cd8ef851dc4422f98e7717205ed13e6pr07"
}
```

Example Response

Status code: 200

Success.

```
{
  "differences" : [ {
    "parameter_name" : "innodb_purge_threads",
    "source_value" : 1,
    "target_value" : 4
  }, {
    "parameter_name" : "connect_timeout",
    "source_value" : 10,
    "target_value" : 20
  } ]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.6.9 Querying Instances That a Parameter Template Can Be Applied To

Function

This API is used to query DB instances that a parameter template can be applied to. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

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URI

GET /v3/{project_id}/configurations/{configuration_id}/applicable-instances

Table 3-363 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
configuration_id	Yes	String	Parameter template ID. To obtain this value, see **Querying Parameter Templates**. After the request is processed, the value of **id** in the response body is the value of **configuration_id**.

Table 3-364 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Index offset. If **offset** is set to *N*, the resource query starts from the N+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	Integer	Number of records to be queried. The default value is **100**. The value must be a positive integer. The minimum value is **1** and the maximum value is **100**.

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Request Parameters

Table 3-365 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-366 Response body parameters

Parameter	Type	Description
instances	Array of **ApplicableInstances** objects	List of instances that the parameter template can be applied to.
total_count	Integer	Number of instances that the parameter template can be applied to.

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Table 3-367 ApplicableInstances

Parameter	Type	Description
instance_id	String	Instance ID.
instance_name	String	Instance name.

Status code: 400

Table 3-368 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-369 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying instances that a template parameter template can be applied to

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/
0c82974e2354466098d7b4b72e55129dpr07/applicable-instances
```

Example Response

Status code: 200

Success.

```
{
  "total_count" : 10,
  "instances" : [ {
    "instance_id" : "75e1935142974ca685357dc784626f22in07",
    "instance_name" : "gauss-ff14-hll"
  }, {
    "instance_id" : "cf72c31a689c40b7883c355a0bb5cc1din07",
    "instance_name" : "tst-bbbnew"
  }, {
    "instance_id" : "4a99fbae95df43648281cdd9e269c1c7in07",
    "instance_name" : "gauss-62d8"
```


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```
 }, {
   "instance_id" : "fb6244dc9b1443b7ad0aae81283d5d28in07",
   "instance_name" : "gauss-test-1"
 }, {
   "instance_id" : "2260da7e105e485ebc9c060c1663d89ain07",
   "instance_name" : "gauss-f4c6-cx"
 }, {
   "instance_id" : "1cf7357f931448f89229de664c114d05in07",
   "instance_name" : "gauss-wry-0710-3"
 }, {
   "instance_id" : "5280b1a667d142378fe28816afb2e4b8in07",
   "instance_name" : "taurus_WAkJSzVy"
 }, {
   "instance_id" : "56c6924923804259a1b15b846c6b4bf1in07",
   "instance_name" : "tck-update3"
 }, {
   "instance_id" : "72a8f4287e04427985087795825fcddain07",
   "instance_name" : "critBack"
 }, {
   "instance_id" : "c5df1dec75ed48ab85fe52c72ba784bbin07",
   "instance_name" : "gauss-f873-cx"
 } ]
}
```


Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.6.10 Viewing Parameter Change History

Function

This API is used to view the parameter change history. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/configurations/{configuration_id}/modify-history

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Table 3-370 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
configuration_id	Yes	String	**Definition**: Parameter template ID. **Constraints**: It must be the ID of the parameter template corresponding to the instance. **Range**: To obtain this value, see **Querying Details of a DB Instance**. After the request is processed, this parameter value is the value of **configuration_id** in the response body. **Default value**: N/A

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Table 3-371 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Index offset. The query starts from the next piece of data indexed by this parameter. **Constraints**: The value cannot be a negative number. **Range**: ≥ 0 **Default value**: 0
limit	No	Integer	**Definition**: Number of records to be queried. **Constraints**: The value cannot be a negative number. **Range**: 1–100 **Default value**: 100

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Request Parameters

Table 3-372 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-373 Response body parameters

Parameter	Type	Description
total_count	Integer	**Definition**: Total number of modified parameters. **Range**: N/A

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Parameter	Type	Description
histories	Array of **ParamGroupHistoryResponse** objects	**Definition**: Change history of the parameter template.

Table 3-374 ParamGroupHistoryResponse

Parameter	Type	Description
parameter_name	String	**Definition**: Parameter name. **Range**: N/A
old_value	String	**Definition**: Old parameter value. **Range**: N/A
new_value	String	**Definition**: New parameter value. **Range**: N/A
update_result	String	**Definition**: Update results. **Range**: N/A
is_applied	Boolean	**Definition**: Whether the changed template is applied. **Range**: • **true**: The changed template is applied. • **false**: The changed template is not applied.
updated	String	**Definition**: Time when the template was modified. 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A

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Parameter	Type	Description
applied	String	**Definition**: Time when the template was applied. 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A

Status code: 400

Table 3-375 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-376 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Viewing parameter change history

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/
7625c6a12d884be1891c61d921e0e114pr07/modify-history
```

Example Response

Status code: 200

Success.

```
{
  "total_count" : 2,
  "histories" : [ {
    "parameter_name" : "binlog_rows_query_log_events",
    "old_value" : false,
```

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```
    "new_value" : true,
    "update_result" : "SUCCESS",
    "is_applied" : true,
    "updated" : "2023-07-10T02:14:28+0000",
    "applied" : "2023-07-10T02:14:28+0000"
  }, {
    "parameter_name" : "block_encryption_mode",
    "old_value" : "aes-256-cbc",
    "new_value" : "aes-128-cfb1",
    "update_result" : "SUCCESS",
    "is_applied" : true,
    "updated" : "2023-07-10T02:14:28+0000",
    "applied" : "2023-07-10T02:14:28+0000"
  } ]
}
```


Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.6.11 Obtaining Parameter Information of a Specified DB Instance

Function

This API is used to obtain parameter information of a specified DB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/configurations

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Table 3-377 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Table 3-378 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Index offset. The query starts from the next piece of data indexed by this parameter. **Constraints**: The value must be an integer and cannot be a negative number. **Range**: ≥0 **Default value**: 0
limit	No	Integer	**Definition**: Number of records to be queried. **Constraints**: The value must be an integer and cannot be a negative number. **Range**: 1–100 **Default value**: 100

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Request Parameters

Table 3-379 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-380 Response body parameters

Parameter	Type	Description
configurations	**ParameterConfigurationInfo** object	**Definition**: Instance parameter template information.

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Parameter	Type	Description
total_count	Long	**Definition**: Total number of instance parameters. **Range**: ≥0
parameter_values	Array of **ParameterValuesInfo** objects	**Definition**: Instance parameter information.

Table 3-381 ParameterConfigurationInfo

Parameter	Type	Description
datastore_version_name	String	**Definition**: DB version name. **Range**: 2.0
datastore_name	String	**Definition**: DB engine name in the parameter template. **Range**: taurus
created	String	**Definition**: Time when the parameter template was created. 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A
updated	String	**Definition**: Time when the parameter template was updated. 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A

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Table 3-382 ParameterValuesInfo

Parameter	Type	Description
name	String	**Definition**: Parameter name. **Range**: N/A
value	String	**Definition**: Parameter value. **Range**: N/A
restart_required	Boolean	**Definition**: Whether a reboot is required. **Range**: • **false**: No • **true**: Yes
readonly	Boolean	**Definition**: Whether the parameter is read-only. **Range**: • **false**: No • **true**: Yes
value_range	String	**Definition**: Value range. **Range**: N/A
type	String	**Definition**: Parameter type. **Range**: • string • integer • boolean • list • float
description	String	**Definition**: Parameter description. **Range**: N/A

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Status code: 400

Table 3-383 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-384 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Obtaining parameter information of a specified DB instance

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/
61a4ea66210545909d74a05c27a7179ein07/configurations
```

Example Response

Status code: 200

Success.

```
{
  "configurations" : {
    "datastore_version_name" : 2.0,
    "datastore_name" : "taurus",
    "created" : "2022-10-29T09:38:36+0000",
    "updated" : "2022-10-29T09:38:36+0000"
  },
  "total_count" : 125,
  "parameter_values" : [ {
    "name" : "auto_increment_increment",
    "value" : 1,
    "restart_required" : false,
    "readonly" : false,
    "value_range" : "1-65535",
    "type" : "integer",
...."description": auto_increment_increment and auto_increment_offset are used for master-to-master replication and to control the operations of the AUTO_INCREMENT column.
  }, {
    "name" : "auto_increment_offset",
    "value" : 1,
    "restart_required" : false,
    "readonly" : false,
```

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```
    "value_range" : "1-65535",
    "type" : "integer",
....."description": auto_increment_increment and auto_increment_offset are used for master-to-master replication and to control the operations of the AUTO_INCREMENT column.
  } ]
}
```


Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.6.12 Modifying Parameters of a Specified DB Instance

Function

This API is used to modify parameters of a specified DB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/configurations

Table 3-385 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

Request Parameters

Table 3-386 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
Content-Type	Yes	String	**Definition**: Content type. **Constraints**: N/A **Range**: application/json **Default value**: application/json

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-387 Request body parameter

Parameter	Mandatory	Type	Description
parameter_values	Yes	Map<String,String>	**Definition**: Mapping between parameter names and parameter values. You can specify parameter values based on a default parameter template. If this parameter is not specified, the original parameter information is retained. **Constraints**: N/A

Response Parameters

Status code: 200

Table 3-388 Response body parameters

Parameter	Type	Description
job_id	String	**Definition**: ID of the task for modifying parameters of a specified instance. **Range**: N/A

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Parameter	Type	Description
restart_required	Boolean	**Definition**: Whether a reboot is required. **Range**: • **true**: The instance needs to be rebooted. • **false**: The instance does not need to be rebooted.

Status code: 400

Table 3-389 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-390 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying parameters of a specified DB instance

```
PUT https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/
3ef58db3986540d19f95151309368d34in07/configurations

{
  "parameter_values" : {
    "max_user_connections" : "100"
  }
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "e5d698a9-d8db-47d2-bf75-3c9018f72b6f",
```


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```
  "restart_required" : false
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

3.6.13 Replicating the Parameter Template of a DB Instance

Function

This API is used to replicate the parameter template of a DB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instances/{instance_id}/configurations/{configuration_id}/copy

Table 3-391 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

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Parameter	Mandatory	Type	Description
configuration_id	Yes	String	Parameter template ID. To obtain this value, see **Querying Details of a DB Instance**. After the request is processed, this parameter value is the value of **configuration_id** in the response body

Request Parameters

Table 3-392 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value.
Content-Type	Yes	String	Content type. Value: **application/json**
X-Language	No	String	Request language type. The default value is **en-us**. Values: • **en-us** • **zh-cn**

Table 3-393 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the replicated parameter template. The template name can contain 1 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), underscores (_), and periods (.) are allowed.

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Parameter	Mandatory	Type	Description
description	No	String	Description of the replicated parameter template. The value is left blank by default. The description can consist of up to 256 characters, and cannot contain the carriage return characters or the following special characters: !<"='>&

Response Parameters

Status code: 200

Table 3-394 Response body parameter

Parameter	Type	Description
configuration_id	String	Parameter template ID.

Status code: 400

Table 3-395 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-396 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Replicating the parameter template of a DB instance

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```
POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/
61a4ea66210545909d74a05c27a7179ein07/configurations/b26ab68e7a77495c8d84b92e4eaa33d3pr07/copy

{
  "name" : "paramTemplate-test-1",
  "description" : "test"
}
```

Example Response

Status code: 200

Success.

```
{
  "configuration_id" : "c82d8c54c4c7416a946f58d9ee89ed8epr07"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

3.6.14 Querying Application Records of a Parameter Template

Function

This API is used to query application records of a parameter template. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/configurations/{config_id}/apply-history

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Table 3-397 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
config_id	Yes	String	**Definition**: Parameter template ID. **Constraints**: It must be the ID of the parameter template corresponding to the instance. **Range**: The value can contain 36 characters, starting with a UUID and ending with **pr07**. Only letters and digits are allowed. To obtain this value, see **Querying Details of a DB Instance**. After the request is processed, this parameter value is the value of **configuration_id** in the response body. **Default value**: N/A

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Table 3-398 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	**Definition**: Number of records to be queried. **Constraints**: The value cannot be a negative number. **Range**: 1–100 **Default value**: 100
offset	No	Integer	**Definition**: Index offset. The query starts from the next piece of data indexed by this parameter. **Constraints**: The value cannot be a negative number. **Range**: ≥ 0 **Default value**: 0

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Request Parameters

Table 3-399 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-400 Response body parameters

Parameter	Type	Description
total_count	String	**Definition**: Number of application records of a parameter template. **Range**: N/A

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Parameter	Type	Description
histories	Array of **TemplateApplyHistory** objects	**Definition**: Application record information of a parameter template.

Table 3-401 TemplateApplyHistory

Parameter	Type	Description
target_id	String	**Definition**: ID of the instance that the template is applied to. **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed.
target_name	String	**Definition**: Name of the instance that the template is applied to. **Range**: Instance name corresponding to the instance ID
apply_result	String	**Definition**: Application results. **Range**: • **SUCCESS**: The parameter template is applied to the corresponding instance. • **FAILED**: The parameter template failed to be applied to the corresponding instance. • **APPLYING**: The parameter template is being applied to the corresponding instance.
applied_at	Number	**Definition**: Time when the template was applied. **Range**: N/A
error_code	String	**Definition**: Error code. **Range**: N/A

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Status code: 400

Table 3-402 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-403 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying application records of a parameter template

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/
b366363c95b04b0eac39e73ea2672ffepr07/apply-history
```

Example Response

Status code: 200

Success.

```
{
  "total_count" : 1,
  "histories" : [ {
    "target_id" : "06789bdfbe414d78b9cef1b79d7d9680in07",
    "target_name" : "gauss-11",
    "apply_result" : "SUCCESS",
    "applied_at" : 1712246191000,
    "error_code" : ""
  } ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

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Error Code

For details, see **Error Codes**.

3.7 Quota Management

3.7.1 Querying the Instance Quotas of a Tenant

Function

This API is used to query the resource quotas of a specified tenant. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/project-quotas

Table 3-404 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Table 3-405 Query parameters

Parameter	Mandatory	Type	Description
type	No	String	**Definition**: Resource type used to filter quotas. **Constraints**: N/A **Range**: instance **Default value**: instance

Request Parameters

Table 3-406 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

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Response Parameters

Status code: 200

Table 3-407 Response body parameters

Parameter	Type	Description
quotas	**project-quotas** object	**Definition**: Instance quota of a tenant.

Table 3-408 project-quotas

Parameter	Type	Description
resources	Array of **resource** objects	**Definition**: Resource objects.

Table 3-409 resource

Parameter	Type	Description
type	String	**Definition**: Quota of a specified type. **Range**: instance
used	Integer	**Definition**: Number of created resources. **Range**: ≥ 0
quota	Integer	**Definition**: Maximum resource quota. **Range**: The instance quantity quota ranges from 0 to 100,000. The value **-1** indicates no limit.

Status code: 400

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Table 3-410 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-411 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the instance quotas of a tenant

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/project-quotas?type=instance
```

Example Response

Status code: 200

Success.

```
{
  "quotas" : {
    "resources" : [ {
      "type" : "instance,",
      "used" : "4,",
      "quota" : 50
    } ]
  }
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

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3.7.2 Querying the Resource Quotas of a Specified Enterprise Project

Function

This API is used to query the resource quotas of a specified enterprise project. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/quotas

Table 3-412 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

Table 3-413 Query parameters

Parameter	Mandatory	Type	Description
offset	No	String	Index offset. If **offset** is set to *N*, the resource query starts from the N+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. Value range: 0–10000.
limit	No	String	Number of records to be queried. The default value is **10**. The value must be a positive integer. The minimum value is **1** and the maximum value is **100**.
enterprise_project_name	No	String	Enterprise project name.

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Request Parameters

Table 3-414 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-415 Response body parameters

Parameter	Type	Description
quota_list	Array of **quota** objects	Resource list objects.
total_count	Integer	Number of quota records.

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Table 3-416 quota

Parameter	Type	Description
enterprise_project_id	String	Enterprise project ID.
enterprise_project_name	String	Enterprise project name.
instance_quota	Integer	Instance quantity quota. The value **-1** indicates no limit.
vcpus_quota	Integer	vCPU quota. The value **-1** indicates no limit.
ram_quota	Integer	Memory quota in GB. The value **-1** indicates no limit.
availability_instance_quota	Integer	Remaining instance quota. The value **-1** indicates no limit.
availability_vcpus_quota	Integer	Remaining vCPU quota. The value **-1** indicates no limit.
availability_ram_quota	Integer	Remaining memory quota. The value **-1** indicates no limit.

Status code: 400

Table 3-417 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-418 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying resource quotas

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/quotas
```

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Example Response

Status code: 200

Success.

```
{
  "quota_list" : [ {
    "enterprise_project_id" : "0",
    "enterprise_project_name" : "default",
    "instance_quota" : 20,
    "vcpus_quota" : 20,
    "ram_quota" : 40,
    "availability_instance_quota" : 1,
    "availability_vcpus_quota" : 4,
    "availability_ram_quota" : 8
  } ]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.7.3 Configuring Resource Quotas for a Specified Enterprise Project

Function

This API is used to configure resource quotas for a specified enterprise project. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/quotas

Table 3-419 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

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Request Parameters

Table 3-420 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-421 Request body parameters

Parameter	Mandatory	Type	Description
quota_list	Yes	Array of **setQuota** objects	Quota details. Up to 10 quota records can be configured at a time.

Table 3-422 setQuota

Parameter	Mandatory	Type	Description
enterprise_project_id	Yes	String	Enterprise project ID.

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Parameter	Mandatory	Type	Description
instance_quota	No	Integer	Instance quantity quota. Value range: 0–100000. **NOTE** (If there are already instances created, this parameter value must be greater than the number of existing instances.)
vcpus_quota	No	Integer	vCPU quota. Value range: 0–2147483646. **NOTE** (If there are already instances created, this parameter value must be greater than the number of used vCPUs.)
ram_quota	No	Integer	Memory quota in GB. Value range: 0–2147483646. **NOTE** (If there are already instances created, this parameter value must be greater than the used memory size.)

Response Parameters

Status code: 200

Table 3-423 Response body parameters

Parameter	Type	Description
quota_list	Array of **setQuota** objects	Configured quota information.

Table 3-424 setQuota

Parameter	Type	Description
enterprise_project_id	String	Enterprise project ID.
instance_quota	Integer	Instance quantity quota.
vcpus_quota	Integer	vCPU quota.
ram_quota	Integer	Memory quota in GB.

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Example Request

Configuring resource quotas

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/quotas
{
  "quota_list" : [ {
    "enterprise_project_id" : "0",
    "instance_quota" : 20,
    "vcpus_quota" : 20,
    "ram_quota" : 40
  } ]
}
```

Example Response

Status code: 200

Success.

```
{
  "quota_list" : [ {
    "enterprise_project_id" : "0",
    "instance_quota" : 20,
    "vcpus_quota" : 20,
    "ram_quota" : 40
  } ]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.7.4 Modifying the Resource Quotas of a Specified Enterprise Project

Function

This API is used to modify the resource quotas of a specified enterprise project. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/quotas

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Table 3-425 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

Request Parameters

Table 3-426 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

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Table 3-427 Request body parameters

Parameter	Mandatory	Type	Description
quota_list	Yes	Array of **setQuota** objects	Enterprise project resource quotas to be updated. A maximum of 10 quotas can be updated at a time.

Table 3-428 setQuota

Parameter	Mandatory	Type	Description
enterprise_project_id	Yes	String	Enterprise project ID.
instance_quota	No	Integer	Instance quantity quota. Value range: 0–100000. **NOTE** (If there are already instances created, this parameter value must be greater than the number of existing instances.)
vcpus_quota	No	Integer	vCPU quota. Value range: 0–2147483646. **NOTE** (If there are already instances created, this parameter value must be greater than the number of used vCPUs.)
ram_quota	No	Integer	Memory quota in GB. Value range: 0–2147483646. **NOTE** (If there are already instances created, this parameter value must be greater than the used memory size.)

Response Parameters

Status code: 200

Table 3-429 Response body parameters

Parameter	Type	Description
quota_list	Array of **setQuota** objects	Configured quota information.

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Table 3-430 setQuota

Parameter	Type	Description
enterprise_project_id	String	Enterprise project ID.
instance_quota	Integer	Instance quantity quota. Value range: 0–100000. **NOTE** (If there are already instances created, this parameter value must be greater than the number of existing instances.)
vcpus_quota	Integer	vCPU quota. Value range: 0–2147483646. **NOTE** (If there are already instances created, this parameter value must be greater than the number of used vCPUs.)
ram_quota	Integer	Memory quota in GB. Value range: 0–2147483646. **NOTE** (If there are already instances created, this parameter value must be greater than the used memory size.)

Status code: 400

Table 3-431 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-432 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying the resource quotas of a specified enterprise project

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```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/quotas
{
  "quota_list" : [ {
    "enterprise_project_id" : "0",
    "instance_quota" : 20,
    "vcpus_quota" : 20,
    "ram_quota" : 40
  } ]
}
```

Example Response

Status code: 200

Success.

```
{
  "quota_list" : [ {
    "enterprise_project_id" : "0",
    "instance_quota" : 20,
    "vcpus_quota" : 20,
    "ram_quota" : 40
  } ]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.7.5 Querying Enterprise Projects

Function

This API is used to query enterprise projects. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/enterprise-projects

Table 3-433 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

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Table 3-434 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Index offset. If **offset** is set to *N*, the resource query starts from the N+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	Integer	Number of records to be queried. The default value is **100**. The value must be a positive integer. The minimum value is **1** and the maximum value is **100**.

Request Parameters

Table 3-435 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-436 Response body parameters

Parameter	Type	Description
enterprise_projects	Array of **EnterpriseProjectItem** objects	Enterprise project information.
total_count	Integer	Total number of enterprise projects.

Table 3-437 EnterpriseProjectItem

Parameter	Type	Description
id	String	Enterprise project ID.
name	String	Enterprise project name.
description	String	Description.
status	String	Status. • **1**: normal • **0**: abnormal
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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**.

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Parameter	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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**.

Status code: 400

Table 3-438 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-439 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying Enterprise Projects

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/enterprise-projects
```

Example Response

Status code: 200

Success.

```
{
  "total_count" : 4,
  "enterprise_projects" : [ {
    "id" : 0,
    "name" : "default",
    "description" : null,
    "status" : 1,
    "created" : null,
    "updated" : null
  }, {
    "id" : "5c7d11e0-3201-4558-bcce-1172137cf7e2",
```


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```
    "name" : "sjw-eps",
    "description" : null,
    "status" : 1,
    "created" : "2023-06-12T02:14:28+0000",
    "updated" : "2023-06-12T02:14:28+0000"
  }, {
    "id" : "12093327-28dc-46c5-8ba6-d42c9236f9d6",
    "name" : "adf",
    "description" : null,
    "status" : 1,
    "created" : "2023-05-06T08:33:03+0000",
    "updated" : "2023-05-06T08:33:03+0000"
  }, {
    "id" : "07d90b3f-422b-40c9-b9b3-6d00d1d7a60b",
    "name" : "eps-test",
    "description" : null,
    "status" : 1,
    "created" : "2023-03-16T01:38:13+0000",
    "updated" : "2023-03-16T01:38:13+0000"
  } ]
}
```


Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.8 Log Management

3.8.1 Enabling or Disabling SQL Explorer

Function

This API is used to enable or disable SQL Explorer. If SQL Explorer is disabled, SQL Explorer may become unavailable for DAS and DBSS. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instance/{instance_id}/audit-log/switch

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Table 3-440 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-441 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-442 Request body parameter

Parameter	Mandatory	Type	Description
switch_status	Yes	String	**Definition**: Whether SQL Explorer is enabled. **Constraints**: N/A **Range**: • **ON**: enabled • **OFF**: disabled **Default value**: N/A

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Response Parameters

Status code: 200

Table 3-443 Response body parameter

Parameter	Type	Description
result	String	**Definition**: Results for enabling or disabling SQL Explorer. **Range**: N/A

Status code: 400

Table 3-444 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-445 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Enabling SQL Explorer

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/
61a4ea66210545909d74a05c27a7179ein07/audit-log/status
{
  "switch_status" : "ON"
}
```

Example Response

Status code: 200

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Success.

```
{
  "result" : "success"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.8.2 Querying Whether SQL Explorer Is Enabled

Function

This API is used to query whether SQL Explorer is enabled. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instance/{instance_id}/audit-log/switch-status

Table 3-446 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range:** The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

Request Parameters

Table 3-447 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-448 Response body parameter

Parameter	Type	Description
switch_status	String	**Definition**: Whether SQL Explorer is enabled. **Range**: • **ON**: enabled • **OFF**: disabled

Status code: 400

Table 3-449 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-450 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

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Parameter	Type	Description
error_msg	String	Error message.

Example Request

Querying whether SQL Explorer is enabled

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/
61a4ea66210545909d74a05c27a7179ein07/audit-log/switch-status
```

Example Response

Status code: 200

Success.

```
{
  "switch_status" : "ON"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.8.3 Querying LTS Configurations of an Instance

Function

This API is used to query LTS configurations of an instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/logs/lts-configs

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Table 3-451 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A

Table 3-452 Query parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	**Definition**: Enterprise project ID. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	No	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
instance_name	No	String	**Definition**: Instance name. **Constraints**: N/A **Range**: The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed. **Default value**: N/A
limit	No	String	**Definition**: Number of records to be queried. **Constraints**: The value must be an integer and cannot be a negative number. **Range**: 1–100 **Default value**: 100
offset	No	String	**Definition**: Index offset. The query starts from the next piece of data indexed by this parameter. **Constraints**: The value must be an integer and cannot be a negative number. **Range**: ≥0 **Default value**: 0

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Request Parameters

Table 3-453 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
Content-Type	Yes	String	**Definition**: Content type. **Constraints**: N/A **Range**: application/json **Default value**: application/json
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

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Table 3-454 Response body parameters

Parameter	Type	Description
instance_lts_configs	Array of **LtsConfigsV3** objects	**Definition**: LTS configurations of an instance.
total_count	Integer	**Definition**: Total number of LTS configurations. **Range**: N/A

Table 3-455 LtsConfigsV3

Parameter	Type	Description
lts_configs	Array of **LtsConfig** objects	**Definition**: LTS configurations.
instance	**InstanceLtsBasicInfo** object	**Definition**: Instance information.

Table 3-456 LtsConfig

Parameter	Type	Description
log_type	String	**Definition**: Log type. **Range**: • **error_log**: error logs • **slow_log**: slow query logs
lts_group_id	String	**Definition**: Log group ID. **Range**: N/A
lts_stream_id	String	**Definition**: Log stream ID. **Range**: N/A

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Parameter	Type	Description
enabled	Boolean	**Definition**: Whether LTS configurations are enabled. **Range**: N/A

Table 3-457 InstanceLtsBasicInfo

Parameter	Type	Description
id	String	**Definition**: Instance ID. **Range**: N/A
name	String	**Definition**: Instance name. **Range**: N/A
mode	String	**Definition**: Instance type. **Range**: N/A
engine_name	String	**Definition**: Engine name. **Range**: N/A
engine_version	String	**Definition**: Engine version. **Range**: N/A
status	String	**Definition**: Status. **Range**: N/A
enterprise_project_id	String	**Definition**: Enterprise project ID. **Range**: N/A

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Parameter	Type	Description
enterprise_project_name	String	**Definition**: Enterprise project name. **Range**: N/A

Status code: 400

Table 3-458 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-459 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

null

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663//logs/lts-configs
```

Example Response

Status code: 200

Success.

```
{
  "total_count" : 1,
  "instance_lts_configs" : [ {
    "lts_configs" : [ {
      "log_type" : "error_log",
      "lts_group_id" : "c3dd5233-24a1-443c-6b40-310b3ad85382",
      "lts_stream_id" : "9b476e31-b745-4e76-8d78-2081168651f7",
      "enabled" : true
    } ],
    "instance" : {
      "id" : "61a4ea66210545909d74a05c27a7179ein07",
      "name" : "gaussdb-mysql-instance01",
      "mode" : "ha",
```


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```
    "engine_name" : "gaussdb-mysql",
    "engine_version" : 2.0,
    "status" : "normal",
    "enterprise_project_id" : 0,
    "enterprise_project_name" : "eps"
   }
  } ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

3.8.4 Deleting LTS Configurations in Batches

Function

This API is used to delete LTS configurations in batches. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

DELETE /v3/{project_id}/logs/lts-configs

Table 3-460 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

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Request Parameters

Table 3-461 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value.
Content-Type	Yes	String	Content type. Value: **application/json**
X-Language	No	String	Request language type. The default value is **en-us**. Values: • **en-us** • **zh-cn**

Table 3-462 Request body parameter

Parameter	Mandatory	Type	Description
log_configs	Yes	Array of **InstanceDeleteLtsConfig** objects	Log configurations.

Table 3-463 InstanceDeleteLtsConfig

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
log_type	Yes	String	Log type.

Response Parameters

Status code: 200

Success.

Status code: 400

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Table 3-464 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-465 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting LTS configurations in batches

```
DELETE https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/logs/lts-configs

{
  "log_configs" : [ {
    "instance_id" : "61a4ea66210545909d74a05c27a7179ein07",
    "log_type" : "error_log"
  } ]
}
```

Example Response

None

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

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3.8.5 Creating LTS Configurations in Batches

Function

This API is used to create LTS configurations in batches. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/logs/lts-configs

Table 3-466 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

Request Parameters

Table 3-467 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value.
Content-Type	Yes	String	Content type. Value: **application/json**
X-Language	No	String	Request language type. The default value is **en-us**. Values: • **en-us** • **zh-cn**

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Table 3-468 Request body parameter

Parameter	Mandatory	Type	Description
log_configs	Yes	Array of **InstanceSaveLtsConfig** objects	Log configurations.

Table 3-469 InstanceSaveLtsConfig

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
log_type	Yes	String	Log type.
lts_group_id	Yes	String	Log group ID.
lts_stream_id	Yes	String	Log stream ID.

Response Parameters

Status code: 200

Success.

Status code: 400

Table 3-470 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-471 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

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Example Request

Creating LTS configurations in batches

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/logs/lts-configs

{
  "log_configs" : [ {
    "instance_id" : "61a4ea66210545909d74a05c27a7179ein07",
    "log_type" : "error_log",
    "lts_group_id" : "c3dd5233-24a1-443c-6b40-310b3ad85382",
    "lts_stream_id" : "9b476e31-b745-4e76-8d78-2081168651f7"
  } ]
}
```

Example Response

None

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

3.8.6 Querying Whether Show Original Log Is Enabled

Function

This API is used to query whether Show Original Log is enabled. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/slowlog/query

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Table 3-472 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	Instance ID.

Request Parameters

Table 3-473 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition**: Content type. **Constraints**: N/A **Range**: application/json **Default value**: application/json
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-474 Response body parameter

Parameter	Type	Description
open_slow_log_switch	Boolean	**Definition**: Whether slow query logs are enabled. **Range**: • **true**: enabled • **false**: disabled

Status code: 400

Table 3-475 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

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Parameter	Type	Description
error_msg	String	Error message.

Status code: 500

Table 3-476 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying whether Show Original Log is enabled

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/slowlog/query
```

Example Response

Status code: 200

Success.

```
{
  "open_slow_log_switch" : true
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

3.8.7 Enabling or Disabling Show Original Log

Function

This API is used to enable or disable Show Original Log. Before calling this API:

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- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instances/{instance_id}/slowlog/modify

Table 3-477 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID.

Request Parameters

Table 3-478 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value.
Content-Type	Yes	String	Content type. Value: **application/json**
X-Language	No	String	Request language type. The default value is **en-us**. Values: • **en-us** • **zh-cn**

Table 3-479 Request body parameter

Parameter	Mandatory	Type	Description
open_slow_log_switch	Yes	Boolean	Whether slow query logs are enabled.

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Response Parameters

Status code: 200

Success.

Status code: 400

Table 3-480 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-481 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Enabling or disabling Show Original Log

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/
61a4ea66210545909d74a05c27a7179ein07/slowlog/modify

{
  "open_slow_log_switch" : true
}
```

Example Response

None

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

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Error Code

For details, see **Error Codes**.

3.8.8 Querying Database Error Logs

Function

This API is used to query database error logs. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/errorlog

Table 3-482 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID.

Table 3-483 Query parameters

Parameter	Mandatory	Type	Description
start_date	Yes	String	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.
end_date	Yes	String	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.

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Parameter	Mandatory	Type	Description
offset	No	Integer	Index offset. If **offset** is set to *N*, the resource query starts from the *N+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	Integer	Number of records to be queried. The default value is **100**. The value must be a positive integer. The minimum value is **1** and the maximum value is **100**.
level	No	String	Log level. The default value is **ALL**. Values: • **ALL** • **INFO** • **WARNING** • **ERROR** • **FATAL** • **NOTE**
node_id	Yes	String	Node ID.

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Request Parameters

Table 3-484 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-485 Response body parameters

Parameter	Type	Description
error_log_list	Array of **MysqlErrorLogList** objects	Error log details.
total_record	Integer	Total number of records.

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Table 3-486 MysqlErrorLogList

Parameter	Type	Description
node_id	String	Node ID.
time	String	Time in the UTC format.
level	String	Log level. • **ALL** • **INFO** • **WARNING** • **ERROR** • **FATAL** • **NOTE**
content	String	Error log content.

Status code: 400

Table 3-487 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-488 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying database error logs

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/096c0fc43e804757b59946b80dc27f8bin07/errorlog?offset=0&limit=1&level=ALL&start_date=2022-07-10T00:00:00+0800&end_date=2022-07-19T00:00:00+0800&node_id=cc07c60e94ec4575989840e648fb4f66no07
```


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Example Response

Status code: 200

Success.

```
{
  "error_log_list" : [ {
    "node_id" : "cc07c60e94ec4575989840e648fb4f66no07",
    "time" : "2022-07-17T07:34:33",
    "level" : "ERROR",
    "content" : "[MY013508] [Repl] do failed: 1"
  } ]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.8.9 Querying Database Slow Logs

Function

This API is used to query database slow logs. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/slowlog

Table 3-489 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID.

Table 3-490 Query parameters

Parameter	Mandatory	Type	Description
start_date	Yes	String	Start time in the "yyyy-mm-ddThh:mm:ssZ" format.

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Parameter	Mandatory	Type	Description
end_date	Yes	String	End time in the "yyyy-mm-ddThh:mm:ssZ" format. Only error logs generated within the last month can be queried.
offset	No	Integer	Index offset. If **offset** is set to *N*, the resource query starts from the *N+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	Integer	Number of records to be queried. The default value is **100**. The value must be a positive integer. The minimum value is **1** and the maximum value is **100**.
type	No	String	Statement type. The default value **All**. If this parameter is left empty, all statement types are queried. Values: • **ALL** • **INSERT** • **UPDATE** • **SELECT** • **DELETE** • **CREATE** • **DROP** • **ALTER**
node_id	Yes	String	Node ID.

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Request Parameters

Table 3-491 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-492 Response body parameters

Parameter	Type	Description
slow_log_list	Array of **MysqlSlowLogList** objects	Error log details.
long_query_time	String	Slow query log threshold.
total_record	Integer	Total number of records.

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Table 3-493 MysqlSlowLogList

Parameter	Type	Description
node_id	String	Node ID.
count	String	Number of executions.
time	String	Execution time.
lock_time	String	Lock wait time.
rows_sent	String	Number of sent rows.
rows_examined	String	Number of scanned rows.
database	String	Database which slow logs belong to.
users	String	Account.
query_sample	String	Execution syntax.
type	String	Statement type.
start_time	String	Start time in the UTC format.
client_ip	String	IP address.

Status code: 400

Table 3-494 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-495 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying slow logs whose statement type is INSERT

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```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
096c0fc43e804757b59946b80dc27f8bin07/slowlog?
offset=0&limit=1&start_date=2022-07-10T00:00:00+0800&end_date=2022-07-19T00:00:00+0800&node_id=cc
07c60e94ec4575989840e648fb4f66no07&type=INSERT
```

Example Response

Status code: 200

Success.

```
{
  "slow_log_list" : [ {
    "node_id" : "cc07c60e94ec4575989840e648fb4f66no07",
    "count" : 1,
    "time" : "1.04899 s",
    "lock_time" : "0.00003 s",
    "rows_sent" : 0,
    "rows_examined" : 0,
    "database" : "gaussdb-mysql",
    "users" : "root",
    "query_sample" : "INSERT INTO time_zone_name (Name, Time_zone_id) VALUES (N @time_zone_id);",
    "type" : "INSERT",
    "start_time" : "2121-03-25T10:55:16.000Z",
    "client_ip" : "192.*.*.1"
  } ],
  "long_query_time" : 10,
  "total_record" : 15
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.9 Tag Management

3.9.1 Querying Resource Tags

Function

This API is used to query tags of a specified instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/tags

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Table 3-496 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Table 3-497 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Index offset. The query starts from the next piece of data indexed by this parameter. **Constraints**: The value cannot be a negative number. **Range**: ≥0 **Default value**: 0
limit	No	Integer	**Definition**: Number of records to be queried. **Constraints**: The value cannot be a negative number. **Range**: 1–100 **Default value**: 100

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Request Parameters

Table 3-498 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-499 Response body parameters

Parameter	Type	Description
total_count	Integer	**Definition**: Total number of records. **Range**: N/A

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Parameter	Type	Description
tags	Array of ResourceTagItem objects	**Definition**: Tag list.

Table 3-500 ResourceTagItem

Parameter	Type	Description
key	String	**Definition**: Tag key. **Range**: It contains a maximum of 36 Unicode characters and cannot be null, an empty string, or a space. It is case-sensitive and can contain digits, letters, underscores (_), and hyphens (-).
value	String	**Definition**: Tag value. **Range**: It contains a maximum of 43 Unicode characters. It can be an empty string but cannot be a space. It is case-sensitive and can contain digits, letters, underscores (_), periods (.), and hyphens (-).

Status code: 400

Table 3-501 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-502 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

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Parameter	Type	Description
error_msg	String	Error message.

Example Request

Querying resource tags

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
61a4ea66210545909d74a05c27a7179ein07/tags?offset=0&limit=2
```

Example Response

Status code: 200

Success.

```
{
  "total_count" : 2,
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  }, {
    "key" : "key2",
    "value" : "value2"
  } ]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.9.2 Querying Project Tags

Function

This API is used to query all tags of instances in a specified project. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/tags

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Table 3-503 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

Table 3-504 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Index offset. The query starts from the next piece of data indexed by this parameter. **Constraints**: The value cannot be a negative number. **Range**: ≥ 0 **Default value**: 0
limit	No	Integer	**Definition**: Number of records to be queried. **Constraints**: The value cannot be a negative number. **Range**: 1–100 **Default value**: 100

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Request Parameters

Table 3-505 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-506 Response body parameters

Parameter	Type	Description
total_count	Integer	**Definition**: Total number of records. **Range**: N/A

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Parameter	Type	Description
tags	Array of **ProjectTagItem** objects	**Definition**: Tag list.

Table 3-507 ProjectTagItem

Parameter	Type	Description
key	String	**Definition**: Tag key. **Range**: It contains a maximum of 36 Unicode characters and cannot be null, an empty string, or a space. It is case-sensitive and can contain digits, letters, underscores (_), and hyphens (-).
values	Array of strings	**Definition**: Tag value. **Range**: It contains a maximum of 43 Unicode characters. It can be an empty string but cannot be a space. It is case-sensitive and can contain digits, letters, underscores (_), periods (.), and hyphens (-).

Status code: 400

Table 3-508 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-509 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

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Parameter	Type	Description
error_msg	String	Error message.

Example Request

Querying project tags

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/tags?offset=0&limit=2
```

Example Response

Status code: 200

Success.

```
{
  "total_count" : 2,
  "tags" : [ {
    "key" : "key1",
    "values" : [ "value1", "value2" ]
  }, {
    "key" : "key2",
    "values" : [ "value3", "value4" ]
  } ]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.9.3 Adding or Deleting Tags in Batches

Function

This API is used to add tags to or delete tags from a specified DB instance in batches. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instances/{instance_id}/tags/action

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Table 3-510 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-511 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-512 Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	**Definition**: Tag operation. **Constraints**: N/A **Range**: • **create**: Add tags. • **delete**: Delete tags. **Default value**: N/A

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Parameter	Mandatory	Type	Description
tags	Yes	Array of **TagItem** objects	**Definition**: Tag list. **Constraints**: N/A

Table 3-513 TagItem

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Tag key. **Constraints**: N/A **Range**: It contains a maximum of 36 Unicode characters and cannot be null, an empty string, or a space. It is case-sensitive and can contain digits, letters, underscores (_), and hyphens (-). **Default value**: N/A

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Parameter	Mandatory	Type	Description
value	No	String	**Definition**: Tag value. **Constraints**: • If **action** is set to **create**, this parameter is mandatory. • If **action** is set to **delete** and **value** is specified, tags are deleted by key and value. If **value** is not specified, tags are deleted by key. **Range**: It contains a maximum of 43 Unicode characters. It can be an empty string but cannot be a space. It is case-sensitive and can contain digits, letters, underscores (_), periods (.), and hyphens (-). **Default value**: N/A

Response Parameters

Status code: 200

Success.

Status code: 400

Table 3-514 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

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Table 3-515 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

- Adding tags in batches

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
61a4ea66210545909d74a05c27a7179ein07/tags/action
{
  "action" : "create",
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  }, {
    "key" : "key2",
    "value" : "value2"
  } ]
}
```

- Deleting tags in batches

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
61a4ea66210545909d74a05c27a7179ein07/tags/action
{
  "action" : "delete",
  "tags" : [ {
    "key" : "key1"
  }, {
    "key" : "key2",
    "value" : "value2"
  } ]
}
```

Example Response

None

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.10 Database User Management

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3.10.1 Creating a Database Account

Function

This API is used to create a database account for a TaurusDB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instances/{instance_id}/db-users

Table 3-516 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-517 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-518 Request body parameter

Parameter	Mandatory	Type	Description
users	Yes	Array of **CreateDatabaseUserList** objects	**Definition**: List of database users. **Constraints**: The list can contain a maximum of 50 database users.

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Table 3-519 CreateDatabaseUserList

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Database username. **Constraints**: N/A **Range**: The username can consist of 1 to 32 characters. Only letters, digits, and underscores (_) are allowed. **Default value**: N/A
password	Yes	String	**Definition**: Database user password. **Constraints**: The password cannot be empty. You are advised to enter a strong password to improve security and prevent security risks such as brute force cracking. **Range**: The password can consist of 8 to 32 characters and must contain at least three types of the following: uppercase letters, lowercase letters, digits, and special characters |.~!@#$%^*-_=+?,()& **Default value**: N/A

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Parameter	Mandatory	Type	Description
comment	No	String	**Definition**: Database description. **Constraints**: This parameter is only available for instances whose kernel version is 2.0.13.0 or later. To upgrade an instance to the latest version, see **Upgrading the Kernel Version of a DB Instance**. **Range**: The value can consist of up to 512 characters. It cannot contain carriage returns or any of the following special characters: !<"='>& **Default value**: N/A
hosts	No	Array of strings	**Definition**: List of host IP addresses. **Constraints**: The list can contain a maximum of 50 IP addresses. **Range**: % and IP addresses. If the value is **10.10.10.%**, all IP addresses in the subnet 10.10.10.*X* are allowed to access your TaurusDB instance. To specify multiple IP addresses, separate them with commas (,), for example, **192.168.0.1,172.16.213.9** (no spaces before or after the comma). **Default value**: The default value is **%**, indicating that all IP addresses are allowed to access your TaurusDB instance.

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Parameter	Mandatory	Type	Description
databases	No	Array of **CreateDatabaseList** objects	**Definition**: List of the databases. When you create a database user, you can grant the permissions of databases in the list to the user. To grant database permissions to a database user, call the API (**Granting Permissions to a Database User**). **Constraints**: The list can contain a maximum of 50 databases, or it can be left blank.

Table 3-520 CreateDatabaseList

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Database name. **Constraints**: The database must exist. **Range**: The database name can contain 1 to 64 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed. The total number of hyphens (-) cannot exceed 10. **Default value**: N/A
readonly	Yes	Boolean	**Definition**: Whether the permission is read-only. **Constraints**: N/A **Range**: • **true**: read-only • **false**: read/write **Default value**: N/A

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Response Parameters

Status code: 201

Table 3-521 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: ID of the task for creating a database account. **Range**: The value is compliant with the UUID format.

Status code: 400

Table 3-522 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-523 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating a database user with the read/write permission (The host IP address is 127.0.0.1.)

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
a23fb62bd61e4e9e9636fd2225f395bein07/db-users
{
  "users" : [ {
    "name" : "gaussdb_mysql_user1",
    "password" : "Rds_1234",
    "hosts" : [ "127.0.0.1" ],
    "databases" : [ {
      "name" : "test",
      "readonly" : false
    } ]
  } ]
}
```


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Example Response

Status code: 201

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.10.2 Querying Database Users

Function

This API is used to query database users of a TaurusDB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/db-users

Table 3-524 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

Table 3-525 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Index offset. The query starts from the next piece of data indexed by this parameter. **Constraints**: The value cannot be a negative number. **Range**: ≥0 **Default value**: 0
limit	No	Integer	**Definition**: Number of records to be queried. **Constraints**: The value cannot be a negative number. **Range**: 1–100 **Default value**: 100

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Request Parameters

Table 3-526 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-527 Response body parameters

Parameter	Type	Description
users	Array of **ListGaussMySqlDatabaseUser** objects	**Definition**: List of database users.

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Parameter	Type	Description
total_count	Integer	**Definition**: Total number of database users of an instance. **Range**: N/A

Table 3-528 ListGaussMySqlDatabaseUser

Parameter	Type	Description
name	String	**Definition**: Database username. **Range**: The username can consist of 1 to 32 characters. Only letters, digits, and underscores (_) are allowed.
host	String	**Definition**: Host IP address. **Range**: % and IP addresses. If the value is **10.10.10.%**, all IP addresses in the subnet 10.10.10.*X* are allowed to access your TaurusDB instance. To specify multiple IP addresses, separate them with commas (,), for example, **192.168.0.1,172.16.213.9** (no spaces before or after the comma).
comment	String	**Definition**: Database user description. **Range**: The value can consist of up to 512 characters. It cannot contain carriage returns or any of the following special characters: ! <"='>&
databases	Array of **ListGaussMySqlDatabase** objects	**Definition**: Database list.

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Table 3-529 ListGaussMySqlDatabase

Parameter	Type	Description
name	String	**Definition**: Database name. **Range**: N/A
readonly	Boolean	**Definition**: Whether the permission is read-only. **Range**: • **true**: read-only • **false**: read/write

Status code: 400

Table 3-530 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-531 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying database users

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
a23fb62bd61e4e9e9636fd2225f395bein07/db-users?offset=0&limit=100
```

Example Response

Status code: 200

Success.

```
{
  "users" : [ {
```


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```
    "name" : "gaussdb_mysql_user1",
    "host" : "127.0.0.1",
    "databases" : [ {
      "name" : "test",
      "readonly" : false
    } ]
  } ],
  "total_count" : 1
}
```


Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.10.3 Deleting Database Users

Function

This API is used to delete database users. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

DELETE /v3/{project_id}/instances/{instance_id}/db-users

Table 3-532 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

Request Parameters

Table 3-533 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-534 Request body parameter

Parameter	Mandatory	Type	Description
users	Yes	Array of **ListDeleteDatabaseUserRequest** objects	List of database users to be deleted. The list contains up to 50 database users.

Table 3-535 ListDeleteDatabaseUserRequest

Parameter	Mandatory	Type	Description
name	Yes	String	Database username.
host	Yes	String	Host IP address.

Response Parameters

Status code: 202

Table 3-536 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: ID of the task for deleting database users. **Range**: N/A

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Status code: 400

Table 3-537 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-538 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting the database user whose host IP address is 127.0.0.1

```
{
  "users" : [ {
    "name" : "gaussdb_mysql_user1",
    "host" : "127.0.0.1"
  } ]
}
```

Example Response

Status code: 202

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

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3.10.4 Modifying the Description of a Database User

Function

This API is used to modify the description of a database user. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/db-users/comment

Table 3-539 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 3-540 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-541 Request body parameters

Parameter	Mandatory	Type	Description
users	Yes	Array of **UpdateDatabaseUserComment** objects	List of database users that you want to modify the description for. The list contains up to 50 database users.

Table 3-542 UpdateDatabaseUserComment

Parameter	Mandatory	Type	Description
name	Yes	String	Database username.
host	Yes	String	Host IP address.
comment	Yes	String	Database user description. The value can consist of up to 512 characters. It cannot contain carriage returns or any of the following special characters: ! <''=''>& This field is only suitable for instances 2.0.13.0 or later.

Response Parameters

Status code: 202

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Table 3-543 Response body parameters

Parameter	Type	Description
job_id	String	ID of the task for modifying the description of a database user.

Status code: 400

Table 3-544 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-545 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying the description of a database user

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
a23fb62bd61e4e9e9636fd2225f395bein07/db-users/comment

{
  "users" : [ {
    "name" : "gaussdb_mysql_user1",
    "host" : "127.0.0.1",
    "comment" : "first_database_user"
  } ]
}
```

Example Response

Status code: 202

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```


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Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.10.5 Changing Password of a Database User

Function

This API is used to change the password of a database user. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/db-users/password

Table 3-546 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

Request Parameters

Table 3-547 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-548 Request body parameter

Parameter	Mandatory	Type	Description
users	Yes	Array of **ResetDatabasePassword** objects	**Definition**: List of database users whose passwords are to be changed. **Constraints**: The list can contain a maximum of 50 database users.

Table 3-549 ResetDatabasePassword

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Database username. **Constraints**: N/A **Range**: The username can consist of 1 to 32 characters. Only letters, digits, and underscores (_) are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
host	Yes	String	**Definition**: Host IP address. **Constraints**: To specify multiple IP addresses, separate them with commas (,), for example, **192.168.0.1,172.16.213.9** (no spaces before or after the comma). **Range**: **%**: All IP addresses can access your TaurusDB instance. You can use % to wildcard some IP addresses. For example, if you enter **10.10.10.%**, all IP addresses in the subnet 10.10.10.*X* can access the TaurusDB instance. **Default value**: N/A
password	Yes	String	**Definition**: Password of the database user. **Constraints**: You are advised to enter a strong password to improve security and prevent security risks such as brute force cracking. **Range**: The value cannot be empty. It can consist of 8 to 32 characters and must contain at least three types of the following: uppercase letters, lowercase letters, digits, and special characters |.~!@#$%^*-_=+?,()& **Default value**: N/A

Response Parameters

Status code: 202

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Table 3-550 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: ID of the task for changing the passwords of database users. **Range**: N/A

Status code: 400

Table 3-551 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-552 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing password of database user **gaussdb_mysql_user1**

```
{
  "users" : [ {
    "name" : "gaussdb_mysql_user1",
    "host" : "127.0.0.1",
    "password" : "Rds_1234"
  } ]
}
```

Example Response

Status code: 202

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

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Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.10.6 Granting Permissions to a Database User

Function

This API is used to grant permissions to a database user. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instances/{instance_id}/db-users/privilege

Table 3-553 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

Request Parameters

Table 3-554 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-555 Request body parameter

Parameter	Mandatory	Type	Description
users	Yes	Array of **GrantDatabasePermission** objects	**Definition**: List of database users. **Constraints**: The list can contain a maximum of 50 database users.

Table 3-556 GrantDatabasePermission

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Database username. **Constraints**: The value must be the username of the current instance. **Range**: The username can consist of 1 to 32 characters. Only letters, digits, and underscores (_) are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
host	Yes	String	**Definition**: Host IP address. **Constraints**: N/A **Range**: % and IP addresses. If the value is **10.10.10.%**, all IP addresses in the subnet 10.10.10.*X* are allowed to access your TaurusDB instance. To specify multiple IP addresses, separate them with commas (,), for example, **192.168.0.1,172.16.213.9** (no spaces before or after the comma). **Default value**: N/A
databases	Yes	Array of **DatabasePermission** objects	**Definition**: List of database permissions. The list contains up to 50 database permissions. **Constraints**: N/A

Table 3-557 DatabasePermission

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Database name. **Constraints**: N/A **Range**: The database name can consist of 1 to 32 characters. Only letters, digits, and underscores (_) are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
readonly	Yes	Boolean	**Definition**: Whether the permission is read-only. **Constraints**: N/A **Range**: • **true**: read-only • **false**: read/write **Default value**: N/A

Response Parameters

Status code: 201

Table 3-558 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: ID of the task for granting permissions to a user. **Range**: N/A

Status code: 400

Table 3-559 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-560 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

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Parameter	Type	Description
error_msg	String	Error message.

Example Request

Granting the read/write permission to a database user

```
{
  "users" : [ {
    "name" : "gaussdb_mysql_user1",
    "host" : "127.0.0.1",
    "databases" : [ {
      "name" : "test",
      "readonly" : false
    } ]
  } ]
}
```

Example Response

Status code: 201

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.10.7 Deleting Permissions of a Database User

Function

This API is used to delete permissions of a database user. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

DELETE /v3/{project_id}/instances/{instance_id}/db-users/privilege

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Table 3-561 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-562 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-563 Request body parameter

Parameter	Mandatory	Type	Description
users	Yes	Array of **DeleteDatabasePermission** objects	**Definition**: List of database users. **Constraints**: The list can contain a maximum of 50 database users.

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Table 3-564 DeleteDatabasePermission

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Database username. **Constraints**: N/A **Range**: The username can consist of 1 to 32 characters. Only letters, digits, and underscores (_) are allowed. **Default value**: N/A
host	Yes	String	**Definition**: Host IP address. **Constraints**: N/A **Range**: % and IP addresses. If the value is **10.10.10.%**, all IP addresses in the subnet 10.10.10.*X* are allowed to access your TaurusDB instance. To specify multiple IP addresses, separate them with commas (,), for example, **192.168.0.1,172.16.213.9** (no spaces before or after the comma). **Default value**: The default value is **%**, indicating that all IP addresses are allowed to access your TaurusDB instance.
databases	Yes	Array of strings	**Definition**: Database list. **Constraints**: The list can contain a maximum of 50 databases.

Response Parameters

Status code: 202

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Table 3-565 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: ID of the task for deleting database permissions of database users. **Range**: N/A

Status code: 400

Table 3-566 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-567 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting permissions of database user **gaussdb_mysql_user1**

```
{
  "users" : [ {
    "name" : "gaussdb_mysql_user1",
    "host" : "127.0.0.1",
    "databases" : [ "test" ]
  } ]
}
```

Example Response

Status code: 202

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```


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Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.11 Database Management

3.11.1 Querying Available Database Character Sets

Function

This API is used to query available database character sets of a TaurusDB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/databases/charsets

Table 3-568 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

Request Parameters

Table 3-569 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-570 Response body parameter

Parameter	Type	Description
charsets	Array of strings	**Definition**: List of database character sets.

Status code: 400

Table 3-571 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-572 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

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Example Request

Querying available database character sets

Example Response

Status code: 200

Success.

```
{
  "charsets" : [ "utf8mb4", "gbk" ]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.11.2 Creating a Database

Function

This API is used to create a database for a TaurusDB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instances/{instance_id}/databases

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Table 3-573 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-574 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-575 Request body parameter

Parameter	Mandatory	Type	Description
databases	Yes	Array of **CreateGaussMySqlDatabase** objects	**Definition**: Database list. **Constraints**: The list can contain a maximum of 50 databases.

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Table 3-576 CreateGaussMySqlDatabase

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Database name. **Constraints**: N/A **Range**: The database name can contain 1 to 64 characters. Only letters, digits, and underscores (_) are allowed. **Default value**: N/A
comment	No	String	**Definition**: Database description. **Constraints**: N/A **Range**: The value can consist of up to 512 characters. It cannot contain carriage returns or any of the following special characters: !<''=''>& **Default value**: N/A

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Parameter	Mandatory	Type	Description
character_set	Yes	String	**Definition**: Character set used by the database. **Constraints**: N/A **Range**: • **utf8**: UTF-8 character set, which uses one to three bytes per character. • **latin1**: It contains 256 characters, which are the ASCII characters plus 128 common Western European characters. It uses 1 byte per character. • **utf8mb4**: complete UTF-8 character set, which uses one to four bytes per character. It can represent more characters, including some special characters and emojis. **Default value**: N/A
users	No	Array of **GaussMySqlDatabaseUser** objects	**Definition**: List of database users. When you create a database, you can grant the database permissions to the users in the list. To grant database permissions to a database user, call the API (**Granting Permissions to a Database User**). **Constraints**: If there is no database user in the list, you cannot grant the database permissions to database users when creating a database. The list can contain a maximum of 50 database users.

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Table 3-577 GaussMySqlDatabaseUser

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Database username. **Constraints**: N/A **Range**: The username can consist of 1 to 32 characters. Only letters, digits, and underscores (_) are allowed. **Default value**: N/A
host	Yes	String	**Definition**: Host IP address. **Constraints**: N/A **Range**: ● If the value is **%**, all IP addresses are allowed to access your TaurusDB instance. ● If the value is **10.10.10.%**, all IP addresses in the subnet 10.10.10.*X* are allowed to access your TaurusDB instance. ● To specify multiple IP addresses, separate them with commas (,), for example, **192.168.0.1,172.16.213.9** (no spaces before or after the comma). **Default value**: N/A

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Parameter	Mandatory	Type	Description
readonly	Yes	Boolean	**Definition**: Whether the permission is read-only. **Constraints**: N/A **Range**: • **true**: read-only • **false**: read/write **Default value**: N/A

Response Parameters

Status code: 201

Table 3-578 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: ID of the task for creating a database. **Range**: N/A

Status code: 400

Table 3-579 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-580 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

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Parameter	Type	Description
error_msg	String	Error message.

Example Request

Creating a database (with utf8mb4 as character set and read/write permission)

```
{
  "databases" : [ {
    "name" : "test",
    "character_set" : "utf8mb4",
    "users" : [ {
      "name" : "gaussdb_mysql_user1",
      "host" : "127.0.0.1",
      "readonly" : false
    } ]
  } ]
}
```

Example Response

Status code: 201

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.11.3 Modifying the Description of a Database

Function

This API is used to modify the description of a database. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/databases/comment

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Table 3-581 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 3-582 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

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Table 3-583 Request body parameters

Parameter	Mandatory	Type	Description
databases	Yes	Array of **Table 3-584** objects	List of databases that you want to modify the description for. The list contains up to 50 databases.

Table 3-584 UpdateDatabaseComment

Parameter	Mandatory	Type	Description
name	Yes	String	Database name.
comment	Yes	String	Database description. The value can consist of up to 512 characters. It cannot contain carriage returns or any of the following special characters: !<"='>&

Response Parameters

Status code: 202

Table 3-585 Response body parameters

Parameter	Type	Description
job_id	String	ID of the task for modifying the description of a database.

Status code: 400

Table 3-586 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

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Table 3-587 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying the description of a database

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
a23fb62bd61e4e9e9636fd2225f395bein07/databases/comment

{
  "databases" : [ {
    "name" : "gaussdb_mysql_user1",
    "comment" : "first_database"
  } ]
}
```

Example Response

Status code: 202

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.11.4 Querying Databases

Function

This API is used to query databases of a TaurusDB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/databases

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Table 3-588 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Table 3-589 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Index offset. The query starts from the next piece of data indexed by this parameter. **Constraints**: The value must be an integer and cannot be a negative number. **Range**: ≥0 **Default value**: 0
limit	No	Integer	**Definition**: Number of records to be queried. **Constraints**: The value must be an integer and cannot be a negative number. **Range**: 1–100 **Default value**: 100

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Request Parameters

Table 3-590 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-591 Response body parameters

Parameter	Type	Description
databases	Array of **ListGaussMysqlDatabaseInfo** objects	**Definition**: Database list.

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Parameter	Type	Description
total_count	Integer	**Definition**: Total number of databases. **Range**: ≥0

Table 3-592 ListGaussMysqlDatabaseInfo

Parameter	Type	Description
name	String	**Definition**: Database name. **Range**: N/A
charset	String	**Definition**: Character set used by the database. **Range**: N/A
users	Array of **GaussMySqlDatabaseInfo** objects	**Definition**: List of authorized database users.

Table 3-593 GaussMySqlDatabaseInfo

Parameter	Type	Description
name	String	**Definition**: Database username. **Range**: N/A
host	String	**Definition**: Host IP address. **Range**: N/A

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Parameter	Type	Description
readonly	Boolean	**Definition**: Whether the permission is read-only. **Range**: • **true**: read-only • **false**: read/write

Status code: 400

Table 3-594 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-595 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying databases

Example Response

Status code: 200

Success.

```
{
  "databases" : [ {
    "name" : "test",
    "charset" : "utf8mb4",
    "users" : [ {
      "name" : "gaussdb-mysql-instance1",
      "host" : "127.0.0.1",
      "readonly" : false
    } ]
  } ],
  "total_count" : 1
}
```


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Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.11.5 Deleting a Database

Function

This API is used to delete a database from a TaurusDB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

DELETE /v3/{project_id}/instances/{instance_id}/databases

Table 3-596 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

Request Parameters

Table 3-597 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-598 Request body parameter

Parameter	Mandatory	Type	Description
databases	Yes	Array of strings	**Definition**: List of databases to be deleted. **Constraints**: N/A **Range**: The list can contain up to 50 databases. **Default value**: N/A

Response Parameters

Status code: 202

Table 3-599 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: ID of the task for deleting databases. **Range**: N/A

Status code: 400

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Table 3-600 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-601 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting databases

```
{
  "databases" : [ "test" ]
}
```

Example Response

Status code: 202

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.12 SQL Throttling

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3.12.1 Enabling or Disabling SQL Throttling

Function

This API is used to enable or disable SQL throttling. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

POST /v3/{project_id}/instances/{instance_id}/sql-filter/switch

Table 3-602 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Request Parameters

Table 3-603 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-604 Request body parameter

Parameter	Mandatory	Type	Description
switch_status	Yes	String	**Definition**: Whether SQL throttling is enabled. **Constraints**: N/A **Range**: • **ON**: enabled • **OFF**: disabled **Default value**: N/A

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Response Parameters

Status code: 200

Table 3-605 Response body parameter

Parameter	Type	Description
job_id	String	**Definition**: ID of the task for enabling or disabling SQL throttling. **Range**: N/A

Status code: 400

Table 3-606 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-607 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

- Enabling SQL throttling

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/
af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/switch
{
  "switch_status" : "ON"
}
```

- Disabling SQL throttling

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/
af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/switch
{
```


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```
  "switch_status" : "OFF"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "aef6a470-fb63-4d5b-b644-12ead7e019b3"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.12.2 Querying Whether SQL Throttling Is Enabled

Function

This API is used to query whether SQL throttling is enabled. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/sql-filter/switch

Table 3-608 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value contains 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

Request Parameters

Table 3-609 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-610 Response body parameter

Parameter	Type	Description
switch_status	String	**Definition**: Whether SQL throttling is enabled. **Range**: • **ON**: enabled • **OFF:** disabled

Status code: 400

Table 3-611 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-612 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

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Parameter	Type	Description
error_msg	String	Error message.

Example Request

Querying whether SQL throttling is enabled

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/
af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/switch
```

Example Response

Status code: 200

Success.

```
{
  "switch_status" : "ON"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.12.3 Configuring SQL Throttling Rules

Function

This API is used to configure SQL throttling rules. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

PUT /v3/{project_id}/instances/{instance_id}/sql-filter/rules

Table 3-613 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

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Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 3-614 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-615 Request body parameter

Parameter	Mandatory	Type	Description
sql_filter_rules	Yes	Array of **NodeSqlFilterRuleInfo** objects	SQL throttling rules for nodes.

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Table 3-616 NodeSqlFilterRuleInfo

Parameter	Mandatory	Type	Description
node_id	Yes	String	Node ID.
rules	Yes	Array of **NodeSqlFilterRule** objects	SQL throttling rules. The **sql_type** value must be unique.

Table 3-617 NodeSqlFilterRule

Parameter	Mandatory	Type	Description
sql_type	Yes	String	SQL statements. Values: • SELECT • UPDATE • DELETE
patterns	Yes	Array of **NodeSqlFilterRulePattern** objects	SQL throttling rules.

Table 3-618 NodeSqlFilterRulePattern

Parameter	Mandatory	Type	Description
pattern	Yes	String	SQL throttling rule. A rule can consist of up to 128 keywords. The keywords are separated by tildes (~), for example, **select~from~t1**. The rule cannot contain backslashes (\), commas (,), or double tildes (~~). It cannot end with tildes (~).
max_concurrency	Yes	Integer	Maximum number of concurrent SQL statements. Value: a non-negative integer.

Response Parameters

Status code: 200

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Table 3-619 Response body parameter

Parameter	Type	Description
job_id	String	ID of the task for configuring SQL throttling rules.

Status code: 400

Table 3-620 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-621 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Configuring SQL throttling rules (SQL statements include SELECT, UPDATE, and DELETE.)

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/
af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/rules
{
  "sql_filter_rules" : [ {
    "node_id" : "c01a5645eb2c4fb6a9373542f5366e50no07",
    "rules" : [ {
      "sql_type" : "SELECT",
      "patterns" : [ {
        "pattern" : "select~from~t1",
        "max_concurrency" : 0
      }, {
        "pattern" : "select~from~t3~where~id",
        "max_concurrency" : 10
      } ]
    }, {
      "sql_type" : "UPDATE",
      "patterns" : [ {
        "pattern" : "update~t3~where~id",
        "max_concurrency" : 10
      } ]
    } ]
  }, {
```


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```
  "node_id" : "b234a5645eb2c4ji3b9372342f5362397no07",
  "rules" : [ {
    "sql_type" : "SELECT",
    "patterns" : [ {
      "pattern" : "select~from~t3~where~id",
      "max_concurrency" : 10
    } ]
  }, {
    "sql_type" : "DELETE",
    "patterns" : [ {
      "pattern" : "delete~t3~where~id",
      "max_concurrency" : 10
    } ]
  } ]
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "aef6a470-fb63-4d5b-b644-12ead7e019b3"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.12.4 Querying SQL Throttling Rules

Function

This API is used to query SQL throttling rules. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/sql-filter/rules

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Table 3-622 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Table 3-623 Query parameters

Parameter	Mandatory	Type	Description
node_id	Yes	String	**Definition**: Node ID. **Constraints**: N/A **Range**: The value can contain 36 characters, starting with a UUID and ending with **no07**. Only letters and digits are allowed. **Default value**: N/A
sql_type	No	String	**Definition**: SQL statements. **Constraints**: N/A **Range**: The value can be **SELECT**, **UPDATE**, or **DELETE** (case-insensitive). You can leave this parameter empty. **Default value**: If this parameter is not specified, SQL throttling rules of all the statements are queried by default.

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Request Parameters

Table 3-624 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-625 Response body parameters

Parameter	Type	Description
node_id	String	**Definition**: Node ID. **Range**: The value is the same as the node ID in the request.

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Parameter	Type	Description
sql_filter_rules	Array of **SqlFilterRule** objects	**Definition**: SQL throttling rules.

Table 3-626 SqlFilterRule

Parameter	Type	Description
sql_type	String	**Definition**: SQL statements. **Range**: • SELECT • UPDATE • DELETE
patterns	Array of **SqlFilterRulePattern** objects	**Definition**: SQL throttling rules.

Table 3-627 SqlFilterRulePattern

Parameter	Type	Description
pattern	String	**Definition**: SQL throttling rule. **Range**: N/A
max_concurrency	Integer	**Definition**: Maximum number of concurrent SQL statements. **Range**: N/A

Status code: 400

Table 3-628 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

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Parameter	Type	Description
error_msg	String	Error message.

Status code: 500

Table 3-629 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying SQL throttling rules

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/
af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/rules?
node_id=c01a5645eb2c4fb6a9373542f5366e50no07
```

Example Response

Status code: 200

Success.

```
{
  "node_id" : "c01a5645eb2c4fb6a9373542f5366e50no07",
  "sql_filter_rules" : [ {
    "sql_type" : "SELECT",
    "patterns" : [ {
      "pattern" : "select~from~t1",
      "max_concurrency" : 0
    }, {
      "pattern" : "select~from~t2~where~id",
      "max_concurrency" : 10
    } ]
  }, {
    "sql_type" : "UPDATE",
    "patterns" : [ {
      "pattern" : "update~t1",
      "max_concurrency" : 0
    }, {
      "pattern" : "update~t2~where~id",
      "max_concurrency" : 10
    } ]
  }, {
    "sql_type" : "DELETE",
    "patterns" : [ {
      "pattern" : "delete~from",
      "max_concurrency" : 0
    } ]
  } ]
}
```


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Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.12.5 Deleting SQL Throttling Rules

Function

This API is used to delete SQL throttling rules. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

DELETE /v3/{project_id}/instances/{instance_id}/sql-filter/rules

Table 3-630 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

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Request Parameters

Table 3-631 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Table 3-632 Request body parameter

Parameter	Mandatory	Type	Description
sql_filter_rules	Yes	Array of **DeleteNodeSqlFilterRuleInfo** objects	SQL throttling rules for nodes.

Table 3-633 DeleteNodeSqlFilterRuleInfo

Parameter	Mandatory	Type	Description
node_id	Yes	String	Node ID.

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Parameter	Mandatory	Type	Description
rules	Yes	Array of **DeleteNodeSqlFilterRule** objects	SQL throttling rules.

Table 3-634 DeleteNodeSqlFilterRule

Parameter	Mandatory	Type	Description
sql_type	Yes	String	SQL statements. Values: • SELECT • UPDATE • DELETE
patterns	Yes	Array of strings	SQL throttling rules.

Response Parameters

Status code: 200

Table 3-635 Response body parameter

Parameter	Type	Description
job_id	String	ID of the task for deleting SQL throttling rules.

Status code: 400

Table 3-636 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

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Table 3-637 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting SQL throttling rules (SQL statements include SELECT, UPDATE, and DELETE.)

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/
af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/rules
{
  "sql_filter_rules" : [ {
    "node_id" : "c01a5645eb2c4fb6a9373542f5366e50no07",
    "rules" : [ {
      "sql_type" : "SELECT",
      "patterns" : [ "select~from~t1", "select~from~t2" ]
    }, {
      "sql_type" : "UPDATE",
      "patterns" : [ "update~t3~where~id" ]
    } ]
  }, {
    "node_id" : "b234a5645eb2c4ji3b9372342f5362397no07",
    "rules" : [ {
      "sql_type" : "SELECT",
      "patterns" : [ "select~from~t1", "select~from~t2" ]
    }, {
      "sql_type" : "DELETE",
      "patterns" : [ "delete~t3~where~id" ]
    } ]
  } ]
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "aef6a470-fb63-4d5b-b644-12ead7e019b3"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

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3.12.6 Querying User Session Threads on a Node

Function

This API is used to query user session threads on a TaurusDB node by page, similar to the **show processlist** command. Internal session threads are not returned. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/nodes/{node_id}/processes

Table 3-638 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
node_id	Yes	String	**Definition**: Node ID, which uniquely identifies a node. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **no07**. Only letters and digits are allowed. **Default value**: N/A

Table 3-639 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Index offset. The query starts from the next piece of data indexed by this parameter. **Constraints**: The value cannot be a negative number. **Range**: ≥ 0 **Default value**: 0
limit	No	Integer	**Definition**: Number of records to be queried. **Constraints**: The value cannot be a negative number. **Range**: 1–100 **Default value**: 100

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Request Parameters

Table 3-640 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-641 Response body parameters

Parameter	Type	Description
processes	Array of **TaurusDbProcessInfo** objects	**Definition**: User session threads.

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Parameter	Type	Description
total_count	Integer	**Definition**: Total number of user session threads on a node. **Range**: ≥ 0

Table 3-642 TaurusDbProcessInfo

Parameter	Type	Description
id	Long	**Definition**: ID of a user session thread.
user	String	**Definition**: User who starts the session thread.
host	String	**Definition**: Host and port that send requests.
db	String	**Definition**: Name of the database that is being accessed.
command	String	**Definition**: Command that is being executed.
time	Long	**Definition**: How many seconds the user session thread remains in the current state.
state	String	**Definition**: Status of the SQL statement that is being executed.
info	String	**Definition**: Additional information, which is usually the statement that is being executed.

Status code: 400

Table 3-643 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

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Parameter	Type	Description
error_msg	String	Error message.

Status code: 500

Table 3-644 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the first 100 user session threads on a TaurusDB node

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/a23fb62bd61e4e9e9636fd2225f395bein07/nodes/18663926eacb443d98dc20f8620f28f2no07/processes?offset=0&limit=100
```

Example Response

Status code: 200

Success.

```
{
  "processes" : [ {
    "id" : 2075425,
    "user" : "root",
    "host" : "100.98.212.252:29285",
    "db" : null,
    "command" : "Query",
    "time" : 103,
    "state" : "User sleep",
    "info" : "select sleep(1000)"
  }, {
    "id" : 2075426,
    "user" : "root",
    "host" : "100.98.212.252:29285",
    "db" : null,
    "command" : "Query",
    "time" : 105,
    "state" : "User sleep",
    "info" : "show processlist"
  } ],
  "total_count" : 2
}
```

Status Code

For details, see **Status Codes**.

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Error Code

For details, see **Error Codes**.

3.12.7 Terminating User Session Threads on a Node

Function

This API is used to terminate specified user session threads on a TaurusDB node, excluding any internal session threads passed in. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

DELETE /v3/{project_id}/instances/{instance_id}/nodes/{node_id}/processes

Table 3-645 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A
instance_id	Yes	String	**Definition**: Instance ID, which uniquely identifies an instance. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed. **Default value**: N/A

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Parameter	Mandatory	Type	Description
node_id	Yes	String	**Definition**: Node ID, which uniquely identifies a node. **Constraints**: N/A **Range**: The value can contain 36 characters with a suffix of **no07**. Only letters and digits are allowed. **Default value**: N/A

Request Parameters

Table 3-646 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us
Content-Type	Yes	String	**Definition**: Request body content type. **Constraints**: N/A **Range**: application/json **Default value**: N/A

Table 3-647 Request body parameter

Parameter	Mandatory	Type	Description
processes	Yes	Array of longs	**Definition**: IDs of user session threads to be terminated. To obtain this value, call the API for querying user session threads on a node or run the **show processlist** command.

Response Parameters

Status code: 200

Table 3-648 Response body parameters

Parameter	Type	Description
processes_killed	Array of longs	**Definition**: IDs of terminated user session threads.

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Parameter	Type	Description
processes_not_found	Array of longs	**Definition**: IDs of user session threads that were not found.

Status code: 400

Table 3-649 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-650 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Terminating specified user session threads on a TaurusDB node

```
DELETE https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/
a23fb62bd61e4e9e9636fd2225f395bein07/nodes/18663926eacb443d98dc20f8620f28f2no07/processes

{
  "processes" : [ 2075425, 2075426 ]
}
```

Example Response

Status code: 200

Success.

```
{
  "processes_killed" : [ 2075425, 2075426 ],
  "processes_not_found" : [ ]
}
```

Status Code

For details, see **Status Codes**.

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Error Code

For details, see **Error Codes**.

3.13 Task Center

3.13.1 Obtaining Information About a Task with a Specified ID

Function

This API is used to obtain task information from the task center. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

Constraints

- This API is used to query asynchronous tasks of the last one month in the task center.
- After a job is generated, it takes several seconds to query the job ID.

URI

GET /v3/{project_id}/jobs

Table 3-651 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Table 3-652 Query parameters

Parameter	Mandatory	Type	Description
id	Yes	String	**Definition**: Task ID. **Constraints**: N/A **Range**: N/A **Default value**: N/A

Request Parameters

Table 3-653 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

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Response Parameters

Status code: 200

Table 3-654 Response body parameters

Parameter	Type	Description
job	**GetJobInfoDetail** object	**Definition**: Task information.

Table 3-655 GetJobInfoDetail

Parameter	Type	Description
id	String	**Definition**: Task ID. **Range**: The value is the same as that of the input parameter.
name	String	**Definition**: Task name. **Range**: N/A
status	String	**Definition**: Task execution status. **Range**: • **Pending**: The task is delayed and is not executed. • **Running**: The task is being executed. • **Completed**: The task has been successfully executed. • **Failed**: The task failed to be executed.
created	String	**Definition**: Creation 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A

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Parameter	Type	Description
ended	String	**Definition**: 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A
process	String	**Definition**: Task execution progress. **Range**: The execution progress (such as 60%) is displayed only when the task is being executed. Otherwise, **""** is returned.
instance	**GetJobInstanceInfoDetail** object	**Definition**: Instance information of the task with the specified ID.
entities	Object	**Definition**: Displayed information varies depending on tasks.
fail_reason	String	**Definition**: Task failure information. **Range**: N/A

Table 3-656 GetJobInstanceInfoDetail

Parameter	Type	Description
id	String	**Definition**: Instance ID, which uniquely identifies an instance. **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed.

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Parameter	Type	Description
name	String	**Definition**: Instance name. **Range**: The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed.

Status code: 400

Table 3-657 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-658 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Obtaining information about a task with a specified ID

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/jobs?id=a9767ede-fe0f-4888-9003-e843a4c90514
```

Example Response

Status code: 200

NOTE

In the response example, some tasks in the task center are used as examples.

Success.

```
{
  "job" : {
    "id" : "31b8ae23-c687-4d80-b7b4-42a66c9bb886",
```


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```
  "name" : "CreateGaussDBforMySQLInstance",
  "status" : "Completed",
  "created" : "2018-08-06T10:41:14+0800",
  "ended" : "2018-08-06T16:41:14+0000",
  "process" : "",
  "instance" : {
    "id" : "a48e43ff268f4c0e879652d65e63d0fbin07",
    "name" : "DO-NOT-TOUCH-mgr2-mysql-single"
  },
  "entities" : {
    "instance" : {
      "endpoint" : "192.168.1.203:3306",
      "type" : "Cluster",
      "datastore" : {
        "type" : "gaussdb-mysql",
        "version" : "8.0"
      }
    },
    "resource_ids" : [ "a48e43ff268f4c0e879652d65e63d0fbin07.vm",
"a48e43ff268f4c0e879652d65e63d0fbin07.volume" ]
  }
 }
}
```


Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.13.2 Obtaining Instant Tasks

Function

This API is used to obtain the instant tasks. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/immediate-jobs

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Table 3-659 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

Table 3-660 Query parameters

Parameter	Mandatory	Type	Description
status	No	String	**Definition**: Task execution status. **Constraints**: N/A **Range**: • **Running**: The task is being executed. • **Completed**: The task is successfully executed. • **Failed**: The task failed to be executed. • **Pending**: The task is not executed. • **Unauthorized**: The task is to be authorized. • **Canceled**: The task is canceled. **Default value**: N/A

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Parameter	Mandatory	Type	Description
job_name	No	String	**Definition**: Task name. **Constraints**: N/A **Range**: • **CreateGaussDBforMySQLInstance**: creating a DB instance • **RestoreGaussDBforMySQLNewInstance**: restoring data to a new DB instance • **AddGaussDBforMySQLNodes**: adding nodes • **DeleteGaussDBforMySQLNode**: deleting nodes • **RebootGaussDBforMySQLInstance**: rebooting a DB instance • **ModifyGaussDBforMySQLPort**: changing a database port • **ModifyGaussDBforMySQLSecurityGroup**: changing a security group • **ResizeGaussDBforMySQLFlavor**: changing instance specifications • **SwitchoverGaussDBforMySQLMasterNode**: promoting a read replica to primary • **GaussDBforMySQLBindEIP**: binding an EIP • **GaussDBforMySQLUnbindEIP**: unbinding an EIP • **RenameGaussDBforMySQLInstance**: changing a DB instance name • **DeleteGaussDBforMySQLInstance**: deleting a DB instance • **UpgradeGaussDBforMySQLDatabaseVersion**:

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Parameter	Mandatory	Type	Description
			upgrading an instance version • **EnlargeGaussDBfor-MySQLProxy**: adding nodes to a proxy instance • **OpenGaussDBforMySQL-Proxy**: enabling database proxy • **CloseGaussDBforMySQL-Proxy**: disabling database proxy • **GaussdbforMySQLModify-ProxyIp**: changing a proxy address • **ScaleGaussDBforMySQL-Proxy**: changing the node specifications of a proxy instance • **GaussDBforMySQLModi-fyInstanceMetricExtend**: enabling or disabling Monitoring by Seconds • **GaussDBforMySQLModi-fyInstanceDataVip**: changing the private IP address • **GaussDBforMySQLS-witchSSL**: enabling or disabling SSL • **GaussDBforMySQLModify-ProxyConsist**: changing the proxy consistency • **GaussDBforMySQLModify-ProxyWeight**: changing the read weights of proxy nodes **Default value**: N/A

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Parameter	Mandatory	Type	Description
job_id	No	String	**Definition**: Job ID. **Constraints**: N/A **Range**: N/A **Default value**: N/A
offset	No	String	**Definition**: Index offset. The query starts from the next piece of data indexed by this parameter. **Constraints**: The value must be an integer and cannot be a negative number. **Range**: ≥ 0 **Default value**: 0
limit	No	String	**Definition**: Number of records to be queried. **Constraints**: The value must be an integer and cannot be a negative number. **Range**: 10, 20, and 50 **Default value**: 10

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Parameter	Mandatory	Type	Description
start_time	No	String	**Definition**: Start time. **Constraints**: N/A **Range**: 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Default value**: N/A
end_time	No	String	**Definition**: End time. **Constraints**: N/A **Range**: 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Default value**: N/A

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Request Parameters

Table 3-661 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-662 Response body parameters

Parameter	Type	Description
jobs	Array of **TaskDetailInfo** objects	**Definition**: Task details.

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Parameter	Type	Description
total_count	Integer	**Definition**: Total number of tasks. **Range**: N/A

Table 3-663 TaskDetailInfo

Parameter	Type	Description
instance_id	String	**Definition**: Instance ID, which is compliant with the UUID format. **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed.
instance_name	String	**Definition**: Instance name. **Range**: Instance name corresponding to the instance ID
instance_status	String	**Definition**: Instance status. **Range**: • **createfail**: An instance failed to be created. • **creating**: An instance is being created. • **normal**: An instance is normal. • **abnormal**: An instance is abnormal. • **deleted**: An instance has been deleted.
job_id	String	**Definition**: Job ID. **Range**: N/A
order_id	String	**Definition**: Order ID. **Range**: N/A

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Parameter	Type	Description
job_name	String	**Definition**: Task name. **Range**: • **CreateGaussDBforMySQLInstance**: creating a DB instance • **RestoreGaussDBforMySQLNewInstance**: restoring data to a new DB instance • **AddGaussDBforMySQLNodes**: adding nodes • **DeleteGaussDBforMySQLNode**: deleting nodes • **RebootGaussDBforMySQLInstance**: rebooting a DB instance • **ModifyGaussDBforMySQLPort**: changing a database port • **ModifyGaussDBforMySQLSecurityGroup**: changing a security group • **ResizeGaussDBforMySQLFlavor**: changing instance specifications • **SwitchoverGaussDBforMySQLMasterNode**: promoting a read replica to primary • **GaussDBforMySQLBindEIP**: binding an EIP • **GaussDBforMySQLUnbindEIP**: unbinding an EIP • **RenameGaussDBforMySQLInstance**: changing a DB instance name • **DeleteGaussDBforMySQLInstance**: deleting a DB instance • **UpgradeGaussDBforMySQLDatabaseVersion**: upgrading an instance version • **EnlargeGaussDBforMySQLProxy**: adding nodes to a proxy instance • **OpenGaussDBforMySQLProxy**: enabling database proxy • **CloseGaussDBforMySQLProxy**: disabling database proxy • **GaussdbforMySQLModifyProxyIp**: changing a proxy address • **ScaleGaussDBforMySQLProxy**: changing the node specifications of a proxy instance • **GaussDBforMySQLModifyInstanceMetricExtend**: enabling or disabling Monitoring by Seconds

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Parameter	Type	Description
		• **GaussDBforMySQLModifyInstanceData-Vip**: changing the private IP address • **GaussDBforMySQLSwitchSSL**: enabling or disabling SSL • **GaussDBforMySQLModifyProxyConsist**: changing the proxy consistency • **GaussDBforMySQLModifyProxyWeight**: changing the read weights of proxy nodes
status	String	**Definition**: Task execution status. **Range**: • **Pending**: The task is delayed and is not executed. • **Running**: The task is being executed. • **Completed**: The task is successfully executed. • **Failed**: The task failed to be executed.
process	String	**Definition**: Task progress. **Range**: N/A
created_time	String	**Definition**: Time when a task was created. **Range**: 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**.
ended_time	String	**Definition**: Task end time. **Range**: 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**.

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Parameter	Type	Description
fail_reason	String	**Definition**: Task failure cause. **Range**: N/A

Status code: 400

Table 3-664 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-665 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Obtaining the instant tasks

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/immediate-jobs
```

Example Response

Status code: 200

Success.

```
{
  "jobs" : [ {
    "instance_id" : "ede953923f06448d9be8686ef0c1378ein07",
    "instance_name" : "gauss-1234",
    "instance_status" : "deleted",
    "job_id" : "7155730b-a60b-4dc0-9f89-3f55897f29d6",
    "order_id" : "",
    "job_name" : "CloseGaussDBforMySQLProxy",
    "status" : "Completed",
    "process" : "",
    "created_time" : "2018-08-06T10:41:14+0000",
    "ended_time" : "2018-08-06T12:41:14+0000",
    "fail_reason" : "Single task exception."
```


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```
 } ],
 "total_count" : 1
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.13.3 Obtaining Scheduled Tasks

Function

This API is used to obtain the scheduled tasks. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/scheduled-jobs

Table 3-666 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: The value can contain 32 characters. Only letters and digits are allowed. **Default value**: N/A

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Table 3-667 Query parameters

Parameter	Mandatory	Type	Description
offset	No	String	**Definition**: Index offset. The query starts from the next piece of data indexed by this parameter. **Constraints**: The value must be an integer and cannot be a negative number. **Range**: ≥ 0 **Default value**: 0
limit	No	String	**Definition**: Number of records to be queried. **Constraints**: The value must be an integer and cannot be a negative number. **Range**: 1–100 **Default value**: 100

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Parameter	Mandatory	Type	Description
status	No	String	**Definition**: Task execution status. **Constraints**: N/A **Range**: • **Running**: The task is being executed. • **Completed**: The task is successfully executed. • **Failed**: The task failed to be executed. • **Pending**: The task is not executed. • **Unauthorized**: The task is to be authorized. • **Canceled**: The task is canceled. **Default value**: N/A
start_time	No	String	**Definition**: Start time. **Constraints**: 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
end_time	No	String	**Definition**: End time. **Constraints**: 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A **Default value**: N/A
job_id	No	String	**Definition**: Job ID. **Constraints**: N/A **Range**: N/A **Default value**: N/A
job_name	No	String	**Definition**: Task scheduling type. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Request Parameters

Table 3-668 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 3-669 Response body parameters

Parameter	Type	Description
schedules	Array of **ScheduleTask** objects	**Definition**: Task details.

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Parameter	Type	Description
total_count	Integer	**Definition**: Total number of records. **Range**: N/A

Table 3-670 ScheduleTask

Parameter	Type	Description
job_id	String	**Definition**: Job ID. **Range**: N/A
instance_id	String	**Definition**: Instance ID, which is compliant with the UUID format. **Range**: The value can contain 36 characters with a suffix of **in07**. Only letters and digits are allowed.
instance_name	String	**Definition**: Instance name. **Range**: Instance name corresponding to the instance ID
instance_status	String	**Definition**: Instance status. **Range**: • **createfail**: An instance failed to be created. • **creating**: An instance is being created. • **normal**: An instance is normal. • **abnormal**: An instance is abnormal. • **deleted**: An instance has been deleted.
project_id	String	**Definition**: Project ID of a tenant in a region. **Range**: ID of the project the instance belongs to.

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Parameter	Type	Description
job_name	String	**Definition**: Task name. **Range**: • **CreateGaussDBforMySQLInstance**: creating a DB instance • **RestoreGaussDBforMySQLNewInstance**: restoring data to a new DB instance • **AddGaussDBforMySQLNodes**: adding nodes • **DeleteGaussDBforMySQLNode**: deleting nodes • **RebootGaussDBforMySQLInstance**: rebooting a DB instance • **ModifyGaussDBforMySQLPort**: changing a database port • **ModifyGaussDBforMySQLSecurityGroup**: changing a security group • **ResizeGaussDBforMySQLFlavor**: changing instance specifications • **SwitchoverGaussDBforMySQLMasterNode**: promoting a read replica to primary • **GaussDBforMySQLBindEIP**: binding an EIP • **GaussDBforMySQLUnbindEIP**: unbinding an EIP • **RenameGaussDBforMySQLInstance**: changing a DB instance name • **DeleteGaussDBforMySQLInstance**: deleting a DB instance • **UpgradeGaussDBforMySQLDatabaseVersion**: upgrading an instance version • **EnlargeGaussDBforMySQLProxy**: adding nodes to a proxy instance • **OpenGaussDBforMySQLProxy**: enabling database proxy • **CloseGaussDBforMySQLProxy**: disabling database proxy • **GaussdbforMySQLModifyProxyIp**: changing a proxy address • **ScaleGaussDBforMySQLProxy**: changing the node specifications of a proxy instance • **GaussDBforMySQLModifyInstanceMetricExtend**: enabling or disabling Monitoring by Seconds

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Parameter	Type	Description
		• **GaussDBforMySQLModifyInstanceData-Vip**: changing the private IP address • **GaussDBforMySQLSwitchSSL**: enabling or disabling SSL • **GaussDBforMySQLModifyProxyConsist**: changing the proxy consistency • **GaussDBforMySQLModifyProxyWeight**: changing the read weights of proxy nodes
create_time	String	**Definition**: Task 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A
start_time	String	**Definition**: Task 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A
end_time	String	**Definition**: Task 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. For example, if the time zone offset is one hour, the value of **Z** is **+0100**. **Range**: N/A

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Parameter	Type	Description
job_status	String	**Definition**: Task execution status. **Range**: • **Pending**: The task is delayed and is not executed. • **Running**: The task is being executed. • **Completed**: The task is successfully executed. • **Failed**: The task failed to be executed. • **Unauthorized**: The task is to be authorized. • **Canceled**: The task is canceled.
datastore_type	String	**Definition**: Database type. **Range**: N/A
target_config	Object	**Definition**: Instance configuration information, such as specifications. **Range**: N/A

Status code: 400

Table 3-671 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-672 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

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Example Request

Obtaining scheduled tasks

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/scheduled-jobs?offset=1&limit=10
```

Example Response

Status code: 200

Success.

```
{
  "schedules" : [ {
    "job_id" : "56d3c1138dcf4f1da73b0170700c78d0",
    "instance_id" : "79bc540dd4d6432784894a981fdfacfcin07",
    "instance_name" : "gauss-f821",
    "instance_status" : "BUILD",
    "project_id" : "053f533ead80d5102f0cc012e8d468a4",
    "job_name" : "UpgradeGaussDBforMySQLDatabaseVersion",
    "create_time" : "2018-08-06T10:41:14+0000",
    "start_time" : "2018-08-06T10:41:14+0000",
    "end_time" : "2018-08-06T10:41:14+0000",
    "job_status" : "Completed",
    "datastore_type" : "gaussdb-mysql",
    "target_config" : {
      "flavor" : "gaussdb.mysql.xlarge.arm.4",
      "mem" : "16",
      "cpu" : "4"
    }
  } ],
  "total_count" : 1
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.13.4 Canceling a Scheduled Task

Function

This API is used to cancel a scheduled task. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

DELETE /v3/{project_id}/scheduled-jobs

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Table 3-673 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

Request Parameters

Table 3-674 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

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Table 3-675 Request body parameter

Parameter	Mandatory	Type	Description
job_ids	Yes	Array of strings	Task ID.

Response Parameters

Status code: 200

Table 3-676 Response body parameter

Parameter	Type	Description
job_ids	Array of strings	Task ID for canceling a scheduled task.

Status code: 400

Table 3-677 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 3-678 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Canceling a scheduled task

```
DELETE https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/scheduled-jobs
{
  "job_ids" : [ "56d3c1138dcf4f1da73b0170700c78d0" ]
}
```


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Example Response

Status code: 200

Success.

```
{
  "job_ids" : [ "56d3c1138dcf4f1da73b0170700c78d0" ]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

3.13.5 Deleting a Task Record

Function

This API is used to delete the record of a specific task. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

DELETE /v3/{project_id}/jobs/{job_id}

Table 3-679 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
job_id	Yes	String	Job ID.

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Request Parameters

Table 3-680 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Success.

Status code: 400

Table 3-681 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

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Status code: 500

Table 3-682 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting a specified task record

```
DELETE https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/jobs/6b00c41d-d54f-4bcb-80da-566ccedc2b5d
```

Example Response

Status code: 200

Success.

```
{}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

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4 APIs (Unavailable Soon)

4.1 DB Engine Version Queries

4.1.1 Querying Version Information About a DB Engine

Function

This API is used to query the version information of a specified DB engine. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  GET https://{endpoint}/mysql/v3/{project_id}/datastores/{database_name}
- Example

  GET https://{endpoint}/mysql/v3/619d3e78f61b4be68bc5aa0b59edcf7b/datastores/gaussdb-mysql
- Parameter description

  Table 4-1 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
database_name	Yes	DB engine. The following DB engine is supported (case-insensitive): gaussdb-mysql

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Request

None

Response

- Normal response

  Table 4-2 Parameter description

Name	Type	Description
datastores	Array of objects	DB versions. For details, see **Table 4-3**.

  Table 4-3 datastores field data structure description

Name	Type	Description
id	String	DB version ID. Its value is unique.
name	String	DB version number. Only the major version number with two digits is returned.

- Example normal response

```
{
	"datastores": [{
		"id": "87620726-6802-46c0-9028-a8785e1f1921",
		"name": "8.0"
	}]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.2 Database Specification Queries

4.2.1 Querying Database Specifications

Function

This API is used to query the database specifications of a specified DB engine version. Before calling this API:

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- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  GET https://{endpoint}/mysql/v3/{project_id}/flavors/{database_name}?version_name={version_name}&spec_code={spec_code}&availability_zone_mode={availability_zone_mode}

- Example

  GET https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/flavors/gaussdb-mysql?version_name=8.0&spec_code=gaussdb.mysql.xlarge.x86.4&availability_zone_mode=single

- Parameter description

  Table 4-4 Parameter description

Name	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
database_name	Yes	String	DB engine. Its value is case-insensitive and can be: gaussdb-mysql
version_name	No	String	DB version number. To obtain this value, see **Querying Version Information About a DB Engine**. Currently, only MySQL 8.0 is supported.
availability_zone_mode	Yes	String	AZ mode. Its value can be **single** or **multi** and is case-insensitive.
spec_code	No	String	Specification code.

Request

None

Response

- Normal response

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Table 4-5 Parameter description

Name	Type	Description
flavors	Array of objects	DB instance specification list. For details, see **Table 4-6**.

Table 4-6 flavors field data structure description

Name	Type	Description
vcpus	String	Number of vCPUs. For example, the value **1** indicates 1 vCPU.
ram	String	Memory size in GB.
type	String	Specification type. The value can be **arm**.
id	String	Specification ID. The value must be unique.
spec_code	String	Resource specification code. Its value is same as the value of **flavor_ref**.
version_name	String	DB version number.
instance_mode	String	DB instance type. Currently, only the cluster type is supported.
az_status	Map<String, String>	Status of the AZ where the specification belongs. Its value can be any of the following: • **normal**: on sale. • **unsupported**: not supported • **sellout**: sold out

- Example normal response

```
{
   "flavors":[
      {
         "vcpus":"1",
         "ram":"4",
         "type":"x86",
         "id":"3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
         "spec_code":"gaussdb.xlarge.x86.4",
         "instance_mode":"Cluster",
         "version_name": "8.0",
         "az_status":{
            "az1":"normal",
            "az2":"normal"
         }
      },
      {
         "vcpus":"2",
         "ram":"4",
         "type":"arm"
```


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```
            "id":"cefb8fab-c9f7-482f-a97c-e8a0c8abe35b",
            "spec_code":"gaussdb.mysql.xlarge.x86.2",
            "instance_mode":"Cluster",
            "version_name": "8.0",
            "az_status":{
                "az1":"normal",
                "az2":"normal"
            }
        }
    ]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.3 Instance Management

4.3.1 Creating a DB Instance

Function

This API is used to create a DB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  POST https://{endpoint}/mysql/v3/{project_id}/instances
- Example

  POST https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/instances
- Parameter description

Table 4-7 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

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Request

Table 4-8 Parameter description

Name	Mandatory	Type	Description
charge_info	No	Object	Billing mode, which is yearly/monthly or pay-per-use (default setting). For details, see **Table 4-9**. Note: You cannot create yearly/monthly instances in a DeC.
name	Yes	String	DB instance name. Instances of the same type can have same names under the same tenant. The value consists of 4 to 64 characters and starts with a letter. It is case-sensitive and contains only letters, digits, hyphens (-), and underscores (_).
datastore	Yes	Object	Database information. For details, see **Table 4-10**.
mode	Yes	String	DB instance type, which is case-insensitive. Currently, only the cluster type is supported.
flavor_ref	Yes	String	Specification code. For details, see **Table 4-6**.
vpc_id	Yes	String	VPC ID. To obtain this value, use either of the following methods: • Method 1: Log in to the VPC console and view the VPC ID on the VPC details page. • Method 2: See "Querying VPCs" in the *Virtual Private Cloud API Reference*.
subnet_id	Yes	String	Subnet ID. To obtain this value, use either of the following methods: • Method 1: Log in to the VPC console and click the target subnet on the **Subnets** page. You can view the subnet ID on the displayed page. • Method 2: See "Querying Subnets" in the *Virtual Private Cloud API Reference*.

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Name	Mandatory	Type	Description
security_group_id	No	String	Security group ID. If network ACL is enabled, this parameter cannot be specified. If network ACL is disabled, this parameter is mandatory. • Method 1: Log in to VPC console. Choose **Access Control** > **Security Groups** in the navigation pane. On the displayed page, click the target security group. You can view the security group ID on the displayed page. • Method 2: See "Querying Security Groups" in the *Virtual Private Cloud API Reference*.
configuration_id	No	String	Parameter template ID.
password	Yes	String	Database password. Values: The password consists of 8 to 32 characters and contains at least three types of the following: uppercase letters, lowercase letters, digits, and special characters ~!@#%^*-_=+? You are advised to enter a strong password to improve security and prevent security risks such as brute force cracking. If you enter a weak password, the system automatically determines that the password is invalid.
backup_strategy	No	Object	Automated backup policy. For details, see **Table 4-11**.
time_zone	No	String	UTC time zone. • If this parameter is not specified, UTC is used by default. • If this parameter is specified, the value ranges from UTC-12:00 to UTC+12:00 at the full hour. For example, the parameter can be **UTC+08:00** rather than **UTC+08:30**.
availability_zone_mode	Yes	String	AZ type. It can be **single** or **multi**.

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Name	Mandatory	Type	Description
master_availability_zone	If **availability_zone_mode** is set to **multi**, this parameter is mandatory. If **availability_zone_mode** is set to **single**, this parameter cannot be specified.	String	Primary AZ.
slave_count	Yes	Integer	Number of read replicas. The value is from 1 to 9. An instance contains up to 15 read replicas.
region	Yes	String	Region ID. The value cannot be empty. Obtain the parameter value from the enterprise administrator.
volume	No	Object	Volume information. This parameter is optional during the creation of yearly/monthly instances. For details, see **Table 4-12**.
enterprise_project_id	No	String	Enterprise project ID. This parameter is mandatory when the enterprise project is enabled.

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Name	Mandatory	Type	Description
lower_case_table_names	No	Integer	Whether a kernel table name is case-sensitive. If the value is **1** (by default), the table name is case-insensitive. If the value is **0**, the table name is case-sensitive.
tags	No	Array of objects	Tag list. Each instance can be associated with tag key–value pairs while being created. • *{key}* indicates the tag key. It must be unique and cannot be empty. • *{value}* indicates the tag value, which can be empty. To create instances with multiple tag keys and values, separate key-value pairs with commas (,). Up to 20 key-value pairs can be added. For details, see **Table 4-13**.

Table 4-9 charge_info field data structure description

Name	Mandatory	Type	Description
charge_mode	Yes	String	Billing mode. Values: • **prePaid**: yearly/monthly • **postPaid**: pay-per-use

Table 4-10 datastore field data structure description

Name	Mandatory	Type	Description
type	Yes	String	DB engine. Currently, only gaussdb-mysql is supported.

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Name	Mandatory	Type	Description
version	Yes	String	DB version. For details about supported DB versions, see **Querying Version Information About a DB Engine**.

Table 4-11 backup_strategy field data structure description

Name	Mandatory	Type	Description
start_time	Yes	String	Automated backup start time. An automated backup will be triggered within one hour after the time specified by this parameter. The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is the UTC time. • 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 **00**. Example value: • 21:00-22:00

Table 4-12 volume field data structure description

Name	Mandatory	Type	Description
size	Yes	Integer	Disk size, in GB. The default value is **40**. Value range: 40–128000. The value must be a multiple of 10.

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Table 4-13 tags field data structure description

Name	Mandatory	Type	Description
key	Yes	String	Tag key. It contains a maximum of 36 Unicode characters. The value cannot be an empty string, a space, or left blank. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed.
value	Yes	String	Tag value. It contains a maximum of 43 Unicode characters. It can be an empty string. Only uppercase letters, lowercase letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.

NOTE

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

- Request example

```
{
"charge_info":{
        "charge_mode":"postPaid"
    },
    "region":"xxx",
    "name":"gaussdb-2d34",
    "datastore":{
        "type":"gaussdb-mysql",
        "version":"8.0"
    },
    "mode":"Cluster",
    "flavor_ref":"gaussdb.mysql.large.x86.4",
    "vpc_id":"f7ee62e2-9705-4523-ba49-a85ea1a1fa87",
    "subnet_id":"140af7bf-a9da-4dcf-8837-34199fd6d186",
    "security_group_id":"c7f69884-fe2b-4630-8114-70a11499d902",
    "configuration_id":"43570e0de32e40c5a15f831aa5ce4176pr07",
    "password":"xxxx",
    "backup_strategy":{
        "start_time":"17:00-18:00"
    },
    "time_zone":"UTC+08:00",
    "availability_zone_mode":"multi",
    "master_availability_zone":"az1pod1",
    "slave_count":1,
    "enterprise_project_id":"0",
    "lower_case_table_names":1
}
```

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Response

- Normal response

Table 4-14 Parameter description

Name	Type	Description
instance	Object	Instance information. For details, see **Table 4-15**.
job_id	String	DB instance creation task ID. This parameter is only returned for pay-per-use instances.
order_id	String	Order ID. This parameter is only returned for yearly/monthly instances.

Table 4-15 instance field data structure description

Name	Type	Description
id	String	DB instance ID.
name	String	DB instance name. Instances of the same type can have same names under the same tenant. The value consists of 4 to 64 characters and starts with a letter. It is case-insensitive and contains only letters, digits, hyphens (-), and underscores (_).
status	String	DB instance status. This parameter is only returned for pay-per-use instances.
datastore	Object	Database information. For details, see **Table 4-16**.
mode	String	DB instance type. Currently, only the cluster type is supported.
configuration_id	String	Parameter template ID.
port	String	Database port, which is the same as the request parameter.
backup_strategy	Object	Automated backup policy. For details, see **Table 4-17**.

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Name	Type	Description
enterprise_project_id	String	Enterprise project ID, which is the same as the request parameter.
region	String	Region ID, which is the same as the request parameter.
availability_zone_mode	String	AZ type, which is the same as the request parameter.
master_availability_zone	String	Primary AZ ID.
vpc_id	String	VPC ID, which is the same as the request parameter.
security_group_id	String	Security group ID, which is the same as the request parameter.
subnet_id	String	Subnet ID, which is the same as the request parameter.
flavor_ref	String	Specification code, which is the same as the request parameter. For details, see **Table 4-6**.
charge_info	Object	Billing mode, which is yearly/monthly or pay-per-use. For details, see **Table 4-18**.

Table 4-16 datastore field data structure description

Name	Type	Description
type	String	**DB Engine**
version	String	DB version.

Table 4-17 backup_strategy field data structure description

Name	Type	Description
start_time	String	Backup time window. Automated backups will be triggered during the backup time window.
keep_days	Integer	Backup retention days.

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Table 4-18 charge_info field data structure description

Name	Type	Description
charge_mode	String	Billing mode.
period_num	Integer	Subscription duration, which is calculated by month. This parameter is valid when **charge_mode** is set to **prePaid** (this parameter is valid only for yearly/monthly instances).

NOTE

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

- Example normal response

```
{
   "instance":{
      "id":"5eebbb4c0f9f4a99b42ed1b6334569aain07",
      "name":"gaussdb-2d34",
      "status":"BUILD",
      "datastore":{
         "type":"gaussdb-mysql",
         "version":"8.0"
      },
      "mode":"Cluster",
      "configuration_id": "",
      "port":null,
      "backup_strategy":{
         "start_time":null,
         "keep_days":"7"
      },
      "enterprise_project_id": "0",
      "region":"aaa",
      "availability_zone_mode":"multi",
      "master_availability_zone":"aaa",
      "vpc_id":"f7ee62e2-9705-4523-ba49-a85ea1a1fa87",
      "security_group_id":"c7f69884-fe2b-4630-8114-70a11499d902",
      "subnet_id":"140af7bf-a9da-4dcf-8837-34199fd6d186"
      "charge_info":{
         "charge_mode":"postPaid"
      },
      "flavor_ref":"gaussdb.mysql.large.x86.4"
   },
   "job_id":"43672fe5-56bd-47f1-8fd1-595cded08a7c"
   }
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

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4.3.2 Querying DB Instances

Function

This API is used to query instances according to search criteria. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  GET https://{endpoint}/mysql/v3/{project_id}/instances?id={id}&name={name}&type={type}&datastore_type={datastore_type}&vpc_id={vpc_id}&subnet_id={subnet_id}&offset={offset}&limit={limit}

- Example

  GET https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances?id=ed7cc6166ec24360a5ed5c5c9c2ed726in01&name=hy&type=Cluster&datastore_type=gaussdb-mysql&vpc_id=19e5d45d-70fd-4a91-87e9-b27e71c9891f&subnet_id=bd51fb45-2dcb-4296-8783-8623bfe89bb7&offset=0&limit=10

- Parameter description

  Table 4-19 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
id	String	No	DB instance ID. The asterisk (*) is reserved for the system. If the instance ID starts with an asterisk (*), the value following asterisk (*) is used for fuzzy matching. Otherwise, the instance ID is used for exact matching.
name	String	No	DB instance name. The asterisk (*) is reserved for the system. If the instance name starts with an asterisk (*), the value following asterisk (*) is used for fuzzy matching. Otherwise, the instance name is used for exact matching.
type	String	No	DB instance type to be queried. Currently, only the cluster type is supported.

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Name	Type	Mandatory	Description
datastore_type	String	No	DB type. Currently, only gaussdb-mysql is supported.
vpc_id	String	No	VPC ID. • Method 1: Log in to the VPC console and view the VPC ID on the VPC details page. • Method 2: See "Querying VPCs" in the *Virtual Private Cloud API Reference*.
subnet_id	String	No	Network ID of the subnet. • Method 1: Log in to the VPC console and click the target subnet on the **Subnets** page. You can view the network ID on the displayed page. • Method 2: See "Querying Subnets" in the *Virtual Private Cloud API Reference*.
offset	Integer	No	Index offset. If **offset** is set to *N*, the resource query starts from the N+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	Number of records to be queried. The default value is **100**. The value must be a positive integer. The minimum value is **1** and the maximum value is **100**.

Request

None

Response

- Normal response

Table 4-20 Parameter description

Name	Type	Description
instances	Array of objects	Instance information. For details, see **Table 4-21**.
total_count	Integer	Total number of records.

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Table 4-21 instances field data structure description

Name	Type	Description
id	String	DB instance ID.
name	String	DB instance name.
status	String	DB instance status.
private_ips	List<String>	Private IP address for write. It is a blank string until an ECS is created.
public_ips	List<String>	Public IP addresses.
port	String	Database port.
type	String	DB instance type. The value is **Cluster**.
region	String	Region where the DB instance is deployed.
datastore	Object	Database information. For details, see **Table 4-22**.
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. The value is empty unless the instance creation is complete.
updated	String	Update time. The format is the same as that of the **created** field. The value is empty unless the instance creation is complete.
db_user_name	String	Default username.
vpc_id	String	VPC ID.
subnet_id	String	Network ID of the subnet.
security_group_id	String	Security group ID.
flavor_ref	String	Specification code. For details, see **Table 4-6**.
flavor_info	Object	Specification description.
volume	Object	Volume information. For details, see **Table 4-23**.

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Name	Type	Description
backup_strategy	Object	Backup policy. For details, see **Table 4-25**.
enterprise_project_id	String	Enterprise project ID.
time_zone	String	Time zone.
charge_info	Object	Billing mode, which is yearly/monthly or pay-per-use. By default, pay-per-use is used. For details, see **Table 4-26**.

Table 4-22 datastore field data structure description

Name	Type	Description
type	String	DB engine.
version	String	DB version.

Table 4-23 volume field data structure description

Name	Type	Description
type	String	Disk type.
size	String	Used disk size in GB.

Table 4-24 flavor_ref field data structure description

Name	Type	Description
vcpus	String	Number of vCPUs.
ram	String	Memory size in GB.

Table 4-25 backup_strategy field data structure description

Name	Type	Description
start_time	String	Backup time window. Automated backups will be triggered during the backup time window.

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Name	Type	Description
keep_days	String	Backup retention days.

Table 4-26 charge_info field data structure description

Name	Type	Description
charge_mode	String	Billing mode. Values: • **prePaid**: indicates the yearly/monthly billing mode. • **postPaid**: indicates the pay-per-use billing mode.

NOTE

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

- Example normal response

```
{
   "total_count":6,
   "instances":[
      {
         "id":"d738399de028480fabb2b8120d4e01a4in07",
         "status":"ACTIVE",
         "name":"oMoS_001",
         "port":3306,
         "type":"Cluster",
         "private_ips": ["192.168.0.142"],
         "public_ips": ["10.154.219.187"],
         "db_user_name": "root",
         "region": "aaa",
         "datastore": {"type": "gaussdb-mysql", "version":"8.0"},
         "created": "2018-08-20T02:33:49+0800",
         "updated": "2018-08-20T02:33:50+0800",
         "volume": {
                "type": "POOL",
                "used_size": 100
         },
         "vpc_id": "f7ee62e2-9705-4523-ba49-a85ea1a1fa87",
         "subnet_id": "140af7bf-a9da-4dcf-8837-34199fd6d186",
         "security_group_id":"c7f69884-fe2b-4630-8114-70a11499d902",
         "flavor_ref":"gaussdb.mysql.c3.small.4",
         "backup_strategy": {"start_time": "19:00-20:00", "keep_days": 7},
         "charge_info": {
            "charge_mode": "postPaid"
         },
         "enterprise_project_id": "0",
             "time_zone": "",
      }
   ]
}
```


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Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.3.3 Querying DB Instances

Function

This API is used to query DB instances according to search criteria. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances

Table 4-27 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

Table 4-28 Query parameters

Parameter	Mandatory	Type	Description
id	No	String	Instance ID. The asterisk (*) is reserved for the system. If the instance ID starts with *, it indicates that fuzzy match is performed based on the value following *. Otherwise, the exact match is performed based on the instance ID. The value cannot contain only asterisks (*).

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Parameter	Mandatory	Type	Description
name	No	String	Instance name. The asterisk (*) is reserved for the system. If the instance name starts with *, it indicates that fuzzy match is performed based on the value following *. Otherwise, the exact match is performed based on the instance name. The value cannot contain only asterisks (*).
type	No	String	Instance type to be queried. Currently, only the cluster type is supported.
datastore_type	No	String	DB type. Currently, only gaussdb-mysql is supported.
vpc_id	No	String	VPC ID.
subnet_id	No	String	Network ID of the subnet.
private_ip	No	String	Private IP address.
readonly_private_ip	No	String	Private IP address for read.
offset	No	Integer	Index offset. If **offset** is set to *N*, the resource query starts from the N+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	Integer	Number of records to be queried. The default value is **100**. The value must be a positive integer. The minimum value is **1** and the maximum value is **100**.

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Parameter	Mandatory	Type	Description
tags	No	String	Query based on the instance tag key and value. • *{key}* indicates the tag key. • *{value}* indicates the tag value. To query instances with multiple tag keys and values, separate key-value pairs with commas (,). The key must be unique. Multiple keys are in AND relationship.

Request Parameters

Table 4-29 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

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Response Parameters

Status code: 200

Table 4-30 Response body parameters

Parameter	Type	Description
instances	Array of **MysqlInstanceListInfo** objects	Instance list information.
total_count	Integer	Total number of records.

Table 4-31 MysqlInstanceListInfo

Parameter	Type	Description
id	String	Instance ID.
name	String	Instance name.
status	String	Instance status.
private_ips	Array of strings	Private IP address for write. It is left blank until an ECS is created.
readonly_private_ips	Array of strings	Private IP addresses for read. It is left blank until an ECS is created.
public_ips	Array of strings	Public IP addresses.
port	String	Database port.
type	String	DB instance type. The value is **Cluster**.
region	String	Region where the DB instance is deployed.
datastore	**MysqlDatastore** object	Database information.
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. **NOTE** The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.

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Parameter	Type	Description
updated	String	Update time. The format is the same as that of the **created** field. **NOTE** The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
db_user_name	String	Default username.
vpc_id	String	VPC ID.
subnet_id	String	Network ID of the subnet.
security_group_id	String	Security group ID.
flavor_ref	String	Specification code.
flavor_info	**MysqlFlavorInfo** object	Flavor information.
volume	**MysqlVolumeInfo** object	Storage disk information.
backup_strategy	**MysqlBackupStrategy** object	Automated backup policy.
enterprise_project_id	String	Enterprise project ID.
time_zone	String	Time zone.
charge_info	**MysqlChargeInfo** object	Billing mode, which is yearly/monthly or pay-per-use (default setting).
dedicated_resource_id	String	Dedicated resource pool ID. This parameter is returned only when the instance belongs to a dedicated resource pool.
tags	Array of **InstanceTagItem** objects	Tag list.

Table 4-32 MysqlDatastoreWithKernelVersion

Parameter	Type	Description
type	String	DB engine. Currently, only **gaussdb-mysql** is supported.

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Parameter	Type	Description
version	String	DB version. To obtain details about supported DB engine versions, call the API for **querying the DB engine versions**.
kernel_version	String	Database kernel version.

Table 4-33 MysqlFlavorInfo

Parameter	Type	Description
vcpus	String	Number of vCPUs.
ram	String	Memory size in GB.

Table 4-34 MysqlVolumeInfo

Parameter	Type	Description
type	String	Disk type.
size	String	Used disk size in GB.

Table 4-35 MysqlBackupStrategy

Parameter	Type	Description
start_time	String	Automated backup start time. The automated backup will be triggered within one hour after the time specified by this parameter. 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. 1. The **HH** value must be 1 greater than the **hh** value. 2. The values of **mm** and **MM** must be the same and must be set to **00**.
keep_days	String	Automated backup retention days. Range: 1–732

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Table 4-36 MysqlChargeInfo

Parameter	Type	Description
charge_mode	String	Billing mode. Values: • **prePaid**: indicates the yearly/monthly billing mode. • **postPaid**: indicates the pay-per-use billing mode.
period_type	String	Subscription period. This parameter is available and mandatory only when **charge_mode** is set to **prePaid**. Values: • **month**: The service is subscribed by month. • **year**: The service is subscribed by year.
period_num	Integer	This parameter is valid and mandatory only when **charge_mode** is set to **prePaid**. Values: • When **period_type** is set to **month**, the parameter value ranges from **1** to **9**. • When **period_type** is set to **year**, the parameter value ranges from **1** to **3**.
is_auto_renew	String	Whether automatic renewal is enabled for yearly/monthly DB instances. The renewal period is the same as the original period and the order will be automatically paid during the subscription renewal. • **true**: indicates that automatic renewal is enabled. • **false**: indicates that automatic renewal is disabled. The default value is **false**.
is_auto_pay	String	Whether the order will be automatically paid after yearly/monthly instances are created. This parameter does not affect the payment method of automatic renewal. • **true**: indicates the order will be automatically paid from your account. The default value is **true**. • **false**: indicates the order will be manually paid.

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Table 4-37 InstanceTagItem

Parameter	Type	Description
key	String	Tag key.
value	String	Tag value.

Status code: 400

Table 4-38 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-39 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying TaurusDB instances whose private IP addresses are 192.168.0.142

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances?id=61a4ea66210545909d74a05c27a7179ein07&name=hyAbc&type=Cluster&datastore_type=gaussdb-mysql&vpc_id=19e5d45d-70fd-4a91-87e9-b27e71c9891f&subnet_id=bd51fb45-2dcb-4296-8783-8623bfe89bb7&private_ip=192.168.0.142&offset=0&limit=10&tags=taurusKey1=value1
```

Example Response

Status code: 200

NOTE

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

Success.

```
{
  "total_count" : 1,
  "instances" : [ {
    "id" : "d738399de028480fabb2b8120d4e01a4in07",
    "name" : "gaussdb-mysql-instance01",
```

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```
  "status" : "ACTIVE",
  "port" : 3306,
  "type" : "Cluster",
  "private_ips" : [ "192.168.0.142" ],
  "db_user_name" : "root",
  "region" : "aaa",
  "datastore" : {
    "type" : "gaussdb-mysql",
    "version" : "8.0",
    "kernel_version" : "2.0.29.1"
  },
  "created" : "2018-08-20T02:33:49_0800",
  "updated" : "2018-08-20T02:33:49_0800",
  "volume" : {
    "type" : "POOL",
    "size" : 100
  },
  "vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
  "flavor_ref" : "gaussdb.mysql.xlarge.x86.4",
  "flavor_info" : {
    "vcpus" : 4,
    "ram" : 16
  },
  "backup_strategy" : {
    "start_time" : "19:00-20:00",
    "keep_days" : 7
  },
  "charge_info" : {
    "charge_mode" : "postPaid"
  },
  "enterprise_project_id" : 0,
  "time_zone" : "UTC",
  "tags" : [ ]
 } ]
}
```


Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.3.4 Deleting a DB Instance

Function

This API is used to delete a DB instance.

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  DELETE https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}
- Example

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DELETE https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/instances/dsfae23fsfdsae3435in01

- Parameter description

Table 4-40 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	Instance ID, which is compliant with the UUID format.

Request

None

Response

- Normal response

Table 4-41 Parameter description

Name	Type	Description
job_id	String	ID of the task for deleting a DB instance.

- Example normal response

```
{
    "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.3.5 Querying Details of a DB Instance

Function

This API is used to query the details of a specified DB instance. Before calling this API:

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- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}

Table 4-42 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID.

Request Parameters

Table 4-43 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 4-44 Response body parameters

Parameter	Type	Description
instance	**MysqlInstanceInfoDetail** object	Instance information.

Table 4-45 MysqlInstanceInfoDetail

Parameter	Type	Description
id	String	Instance ID.
name	String	DB instance name.
project_id	String	Project ID of a tenant in a region.

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Parameter	Type	Description
status	String	DB instance status. Values: • **BUILD**: The DB instance is being created. • **ACTIVE**: The DB instance is normal. • **FAILED**: The DB instance is abnormal. • **FROZEN**: The DB instance is frozen. • **MODIFYING**: The DB instance is being scaled up. • **REBOOTING**: The DB instance is being rebooted. • **RESTORING**: The DB instance is being restored. • **MODIFYING INSTANCE TYPE**: The DB instance is changing from primary to standby. • **SWITCHOVER**: A primary/standby switchover is being performed. • **MIGRATING**: The DB instance is being migrated. • **BACKING UP**: The DB instance is being backed up. • **MODIFYING DATABASE PORT**: The database port is being changed. • **STORAGE FULL**: The DB instance storage space is full.
port	String	Database port.
alias	String	Instance description.
type	String	Instance type. The value is **Cluster**.
charge_info	**MysqlInstanceChargeInfo** object	Billing mode, which is yearly/monthly or pay-per-use (default setting).
node_count	Integer	Number of nodes.
datastore	**MysqlDatastore** object	Database information.
backup_used_space	Double	Used backup space in GB.

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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. **NOTE** The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
updated	String	Update time. The format is the same as that of the **created** field. **NOTE** The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
private_write_ips	Array of strings	Private IP address for write.
public_ips	String	Public IP address of the instance.
db_user_name	String	Default username.
vpc_id	String	VPC ID.
subnet_id	String	Network ID of the subnet.
security_group_id	String	Security group ID.
configuration_id	String	ID of the parameter template used for creating an instance or ID of the latest parameter template that is applied to an instance.
backup_strategy	**MysqlBackupStrategy** object	Automated backup policy.
nodes	Array of **MysqlInstanceNodeInfo** objects	Node information.
enterprise_project_id	String	Enterprise project ID.
time_zone	String	Time zone.
az_mode	String	AZ type. Values: • **single**: single AZ • **multi**: multiple AZs

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Parameter	Type	Description
master_az_code	String	Primary AZ.
maintenance_window	String	Maintenance window in the UTC format.
tags	Array of **MysqlTags** objects	Tags for managing instances.
dedicated_resource_id	String	Dedicated resource pool ID. This parameter is returned only when the instance belongs to a dedicated resource pool.
proxies	Array of **MysqlProxyInfo** objects	Proxy instance information.

Table 4-46 MysqlInstanceChargeInfo

Parameter	Type	Description
charge_mode	String	Billing mode.
order_id	String	Order ID.

Table 4-47 MysqlDatastoreWithKernelVersion

Parameter	Type	Description
type	String	DB engine. Currently, only **gaussdb-mysql** is supported.
version	String	DB version. For details about supported DB versions, see **Querying Version Information About a DB Engine**.
kernel_version	String	DB kernel version.

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Table 4-48 MysqlBackupStrategy

Parameter	Type	Description
start_time	String	Automated backup start time. The automated backup will be triggered within one hour after the time specified by this parameter. 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. 1. The **HH** value must be 1 greater than the **hh** value. 2. The values of **mm** and **MM** must be the same and must be set to **00**.
keep_days	String	Automated backup retention days. Range: 1–732

Table 4-49 MysqlInstanceNodeInfo

Parameter	Type	Description
id	String	Instance ID.
name	String	Node name.
type	String	Node type. Values: • **master**: primary node • **slave**: read replica
status	String	Node status.
port	Integer	Database port.
private_read_ips	Array of strings	Private IP address for read of the node.
volume	**MysqlInstanceNodeVolumeInfo** object	Storage disk information.
az_code	String	AZ.
region_code	String	Region where the instance is located.

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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. **NOTE** The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
updated	String	Update time. The format is the same as that of the **created** field. **NOTE** The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
flavor_id	String	Specification ID.
flavor_ref	String	Specification code.
max_connections	String	Maximum number of connections.
vcpus	String	Number of vCPUs.
ram	String	Memory size in GB.
need_restart	Boolean	Whether to reboot the instance for the parameter modifications to take effect.
priority	Integer	Failover priority.

Table 4-50 MysqlInstanceNodeVolumeInfo

Parameter	Type	Description
type	String	Disk type.
used	String	Used disk size in GB.
size	Long	Disk size of the yearly/monthly instance in GB

Table 4-51 MysqlTags

Parameter	Type	Description
key	String	Tag key. The value can contain a maximum of 36 Unicode characters. The value cannot be an empty string, a space, or left blank. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed.

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Parameter	Type	Description
value	String	Tag value. It contains a maximum of 43 Unicode characters. The value can be an empty string. Only uppercase letters, lowercase letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.

Table 4-52 MysqlProxyInfo

Parameter	Type	Description
pool_id	String	Proxy instance ID.
name	String	Proxy instance name.
address	String	Proxy address.

Status code: 400

Table 4-53 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-54 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying details of a specified DB instance

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/
436aaafb689c4250a9a5bb33cb271e8cin07
```

Example Response

Status code: 201

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NOTE

The values of **region_code** and **az_code** are used as examples.

Success.


```
{
  "instance" : {
    "id" : "d738399de028480fabb2b8120d4e01a4in07",
    "name" : "gaussdb-mysql-instance01",
    "alias" : "",
    "status" : "ACTIVE",
    "project_id" : "3cedfc54-b105-4652-a4e0-847b11576628",
    "enterprise_project_id" : 0,
    "type" : "Cluster",
    "charge_info" : {
      "charge_mode" : "postPaid",
      "order_id" : ""
    },
    "node_count" : 2,
    "datastore" : {
      "type" : "gaussdb-mysql",
      "version" : "8.0",
      "kernel_version" : "2.0.29.1"
    },
    "created" : "2022-07-14T16:26:58+0800",
    "updated" : "2022-07-18T14:20:33+0800",
    "public_ips" : [ "10.154.219.187" ],
    "private_write_ips" : [ "192.168.0.142" ],

    "db_user_name" : "root",
    "port" : 3306,
    "vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    "security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
    "backup_strategy" : {
      "start_time" : "19:00-20:00",
      "keep_days" : 7
    },
    "nodes" : [ {
      "id" : "799a0f2fa49a4151bf9f7063c1fbba36no07",
      "name" : "gauss-d616-lb07_node01",
      "type" : "master",
      "status" : "ACTIVE",
      "port" : 3306,
      "private_read_ips" : [ "192.168.0.163" ],
      "volume" : {
        "type" : "POOL",
        "used" : 0.07
      },
      "az_code" : "az1xahz",
      "region_code" : "cn-xianhz-1",
      "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
      "flavor_ref" : "gaussdb.mysql.xlarge.x86.4",
      "max_connections" : 1500,
      "vcpus" : 4,
      "ram" : 16,
      "need_restart" : false,
      "priority" : 1,
      "created" : "2022-07-14T16:26:58+0800",
      "updated" : "2022-07-18T09:24:18+0800"
    }, {
      "id" : "799a0f2fa49a4151bf9f7063c1fbba35no07",
      "name" : "gauss-d616-lb07_node02",
      "type" : "slave",
      "status" : "ACTIVE",
      "port" : 3306,
      "private_read_ips" : [ "192.168.0.162" ],
      "volume" : {
```


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```
      "type" : "POOL",
      "used" : 0.07
    },
    "az_code" : "az1xahz",
    "region_code" : "cn-xianhz-1",
    "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
    "flavor_ref" : "gaussdb.mysqlxlarge.arm.2.ha",
    "max_connections" : 1500,
    "vcpus" : 1,
    "ram" : 4,
    "need_restart" : false,
    "priority" : 1,
    "created" : "2022-07-14T16:26:58+0800",
    "updated" : "2022-07-18T09:36:18+0800"
  } ],
  "time_zone" : "UTC+08:00",
  "backup_used_space" : 0.24,
  "az_mode" : "single",
  "master_az_code" : "az1",
  "maintenance_window" : "18:00-22:00",
  "tags" : [ ],
  "configuration_id" : "53570e0de54e40c5a15f331aa5sd2176pr07",
  "dedicated_resource_id" : "",
  "proxies" : [ {
    "pool_id" : "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",
    "address" : "192.168.10.76",
    "name" : "proxy-name"
  } ]
 }
}
```


Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.3.6 Querying Details of DB Instances in Batches

Function

This API is used to query details of DB instances in batches. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/details

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Table 4-55 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

Table 4-56 Query parameters

Parameter	Mandatory	Type	Description
instance_ids	Yes	String	Instance ID. A maximum of 20 instance IDs can be entered at a time. Separate them with commas (,).

Request Parameters

Table 4-57 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. To obtain this value, call the IAM API for **obtaining a user token**. The value of **X-Subject-Token** in the response header is the token value. **Constraints**: N/A **Range**: N/A **Default value**: N/A

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Parameter	Mandatory	Type	Description
X-Language	No	String	**Definition**: Request language type. **Constraints**: N/A **Range**: • en-us • zh-cn **Default value**: en-us

Response Parameters

Status code: 200

Table 4-58 Response body parameters

Parameter	Type	Description
instances	Array of **MysqlInstanceInfoDetail** objects	Instance details.

Table 4-59 MysqlInstanceInfoDetail

Parameter	Type	Description
id	String	Instance ID.
name	String	Instance name.
project_id	String	Project ID of a tenant in a region.

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Parameter	Type	Description
status	String	Instance status. Values: • **BUILD**: The DB instance is being created. • **ACTIVE**: The DB instance is normal. • **FAILED**: The instance failed to be created. • **FROZEN**: The DB instance is frozen. • **MODIFYING**: The DB instance is being scaled up. • **REBOOTING**: The DB instance is being rebooted. • **RESTORING**: The DB instance is being restored. • **SWITCHOVER**: A primary/standby switchover is being performed. • **MIGRATING**: The DB instance is being migrated. • **BACKING UP**: The DB instance is being backed up. • **MODIFYING DATABASE PORT**: The database port is being changed. • **STORAGE FULL**: The DB instance storage space is full.
port	String	Database port.
alias	String	Instance description.
type	String	Instance type. The value is **Cluster**.
charge_info	**MysqlInstanceChargeInfo** object	Billing mode, which is yearly/monthly or pay-per-use (default setting).
node_count	Integer	Number of nodes.
datastore	**MysqlDatastoreWithKernelVersion** object	Database information.
backup_used_space	Double	Used backup space in GB.

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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. **NOTE** The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
updated	String	Update time. The format is the same as that of the **created** field. **NOTE** The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
private_write_ips	Array of strings	Private IP address for write.
public_ips	String	Public IP address of the instance.
db_user_name	String	Default username.
vpc_id	String	VPC ID.
subnet_id	String	Network ID of the subnet.
security_group_id	String	Security group ID.
configuration_id	String	ID of the parameter template used for creating an instance or ID of the latest parameter template that is applied to an instance.
backup_strategy	**MysqlBackupStrategy** object	Automated backup policy.
nodes	Array of **MysqlInstanceNodeInfo** objects	Node information.
enterprise_project_id	String	Enterprise project ID.
time_zone	String	Time zone.
az_mode	String	AZ type. Values: • **single**: single AZ • **multi**: multiple AZs

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Parameter	Type	Description
master_az_code	String	Primary AZ.
maintenance_window	String	Maintenance window in the UTC format.
tags	Array of **MysqlTags** objects	Tags for managing instances.
dedicated_resource_id	String	Dedicated resource pool ID. This parameter is returned only when the instance belongs to a dedicated resource pool.
proxies	Array of **MysqlProxyInfo** objects	Proxy instance information.

Table 4-60 MysqlInstanceChargeInfo

Parameter	Type	Description
charge_mode	String	Billing mode.
order_id	String	Order ID.

Table 4-61 MysqlDatastoreWithKernelVersion

Parameter	Type	Description
type	String	DB engine. Currently, only **gaussdb-mysql** is supported.
version	String	DB version. For details about supported DB versions, see **Querying Version Information About a DB Engine**.
kernel_version	String	Database kernel version.

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Table 4-62 MysqlBackupStrategy

Parameter	Type	Description
start_time	String	Automated backup start time. The automated backup will be triggered within one hour after the time specified by this parameter. 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. 1. The **HH** value must be 1 greater than the **hh** value. 2. The values of **mm** and **MM** must be the same and must be set to **00**.
keep_days	String	Automated backup retention days. Range: 1–732

Table 4-63 MysqlInstanceNodeInfo

Parameter	Type	Description
id	String	Instance ID.
name	String	Node name.
type	String	Node type. Values: • **master**: primary node • **slave**: read replica
status	String	Node status.
port	Integer	Database port.
private_read_ips	Array of strings	Private IP address for read of the node.
volume	**MysqlInstanceNodeVolumeInfo** object	Storage disk information.
az_code	String	AZ.
region_code	String	Region where the instance is located.

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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. **NOTE** The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
updated	String	Update time. The format is the same as that of the **created** field. **NOTE** The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
flavor_id	String	Specification ID.
flavor_ref	String	Specification code.
max_connections	String	Maximum number of connections.
vcpus	String	Number of vCPUs.
ram	String	Memory size in GB.
need_restart	Boolean	Whether to reboot the instance for the parameter modifications to take effect.
priority	Integer	Failover priority.

Table 4-64 MysqlInstanceNodeVolumeInfo

Parameter	Type	Description
type	String	Disk type.
used	String	Used disk size in GB.
size	Long	Disk size of the yearly/monthly instance in GB

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Table 4-65 MysqlTags

Parameter	Type	Description
key	String	Tag key. The value can contain a maximum of 36 Unicode characters. The value cannot be an empty string, a space, or left blank. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed.
value	String	Tag value. It contains a maximum of 43 Unicode characters. The value can be an empty string. Only uppercase letters, lowercase letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.

Table 4-66 MysqlProxyInfo

Parameter	Type	Description
pool_id	String	Proxy instance ID.
name	String	Proxy instance name.
address	String	Proxy address.

Status code: 400

Table 4-67 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-68 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

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Example Request

Querying details of DB instances in batches

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/details?
instance_ids=436aaafb689c4250a9a5bb33cb271e8cin07,d738399de028480fabb2b8120d4e01a4in07
```

Example Response

Status code: 200

Success.


```
{
  "instances" : [ {
    "id" : "d738399de028480fabb2b8120d4e01a4in07",
    "name" : "gaussdb-mysql-instance01",
    "alias" : "",
    "status" : "ACTIVE",
    "project_id" : "3cedfc54-b105-4652-a4e0-847b11576628",
    "enterprise_project_id" : 0,
    "type" : "Cluster",
    "charge_info" : {
      "charge_mode" : "postPaid",
      "order_id" : ""
    },
    "node_count" : 2,
    "datastore" : {
      "type" : "gaussdb-mysql",
      "version" : "8.0",
      "kernel_version" : "2.0.29.1"
    },
    "created" : "2022-07-14T16:26:58+0800",
    "updated" : "2022-07-18T14:20:33+0800",
    "public_ips" : [ "10.154.219.187" ],
    "private_write_ips" : [ "192.168.0.142" ],

    "db_user_name" : "root",
    "port" : 3306,
    "vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    "security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
    "backup_strategy" : {
      "start_time" : "19:00-20:00",
      "keep_days" : 7
    },
    "nodes" : [ {
      "id" : "799a0f2fa49a4151bf9f7063c1fbba36no07",
      "name" : "gauss-d616-lb07_node01",
      "type" : "master",
      "status" : "ACTIVE",
      "port" : 3306,
      "private_read_ips" : [ "192.168.0.163" ],
      "volume" : {
        "type" : "POOL",
        "used" : 0.07
      },
      "az_code" : "az1xahz",
      "region_code" : "cn-xianhz-1",
      "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
      "flavor_ref" : "gaussdb.mysql.xlarge.x86.4",
      "max_connections" : 1500,
      "vcpus" : 4,
      "ram" : 16,
      "need_restart" : false,
      "priority" : 1,
      "created" : "2022-07-14T16:26:58+0800",
      "updated" : "2022-07-18T09:24:18+0800"
```


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```
  }, {
    "id" : "799a0f2fa49a4151bf9f7063c1fbba35no07",
    "name" : "gauss-d616-lb07_node02",
    "type" : "slave",
    "status" : "ACTIVE",
    "port" : 3306,
    "private_read_ips" : [ "192.168.0.162" ],
    "volume" : {
      "type" : "POOL",
      "used" : 0.07
    },
    "az_code" : "az1xahz",
    "region_code" : "cn-xianhz-1",
    "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
    "flavor_ref" : "gaussdb.mysql.xlarge.x86.4",
    "max_connections" : 1500,
    "vcpus" :4,
    "ram" : 16,
    "need_restart" : false,
    "priority" : 1,
    "created" : "2022-07-14T16:26:58+0800",
    "updated" : "2022-07-18T09:36:18+0800"
  } ],
  "time_zone" : "UTC+08:00",
  "backup_used_space" : 0.24,
  "az_mode" : "single",
  "master_az_code" : "az1",
  "maintenance_window" : "18:00-22:00",
  "tags" : [ ],
  "configuration_id" : "53570e0de54e40c5a15f331aa5sd2176pr07",
  "dedicated_resource_id" : "",
  "proxies" : [ {
    "pool_id" : "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",
    "address" : "192.168.10.76",
    "name" : "proxy-name"
  } ]
 } ]
}
```


Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.3.7 Querying Details of a DB Instance

Function

This API is used to query the details of a specified DB instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  GET https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}

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- Example

  GET https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/436aaafb689c4250a9a5bb33cb271e8cin07

- Parameter description

  Table 4-69 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	String	Yes	DB instance ID.

Request

None

Response

- Normal response

  Table 4-70 Parameter description

Name	Type	Description
instance	Object	Instance information. For details, see **Table 4-71**.

  Table 4-71 instance field data structure description

Name	Type	Description
id	String	DB instance ID.
name	String	DB instance name.
project_id	String	Project ID of a tenant in a region.

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Name	Type	Description
status	String	DB instance status. Values: If the value is **BUILD**, the DB instance is being created. If the value is **ACTIVE**, the DB instance is normal. If the value is **FAILED**, the DB instance is abnormal. If the value is **FROZEN**, the DB instance is frozen. If the value is **MODIFYING**, the DB instance is being scaled up. If the value is **REBOOTING**, the DB instance is being rebooted. If the value is **RESTORING**, the DB instance is being restored. If the value is **MODIFYING INSTANCE TYPE**, the DB instance is changing from primary to standby. If the value is **SWITCHOVER**, the primary/standby switchover is being performed. If the value is **MIGRATING**, the DB instance is being migrated. If the value is **BACKING UP**, the DB instance is being backed up. If the value is **MODIFYING DATABASE PORT**, the database port is being changed. If the value is **STORAGE FULL**, the instance storage space is full.
enterprise_project_id	String	Enterprise project ID.
type	String	DB instance type. Currently, only the cluster type is supported.
node_count	Integer	Number of nodes.
datastore	Object	Database information. For details, see **Table 4-72**.
backup_used_space	Double	Used backup space in GB.

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Name	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. The value is empty unless the instance creation is complete.
updated	String	Update time. The format is the same as that of the **created** field. The value is empty unless the instance creation is complete.
public_ips	String	Public IP address of the instance.
private_write_ips	Array of List	Private IP address for write.
db_user_name	String	Default username.
port	String	Database port.
vpc_id	String	VPC ID.
subnet_id	String	Network ID of the subnet.
security_group_id	String	Security group ID.
volume	Object	Disk information. For details, see **Table 4-75**.
backup_strategy	Object	Backup policy. For details, see **Table 4-73**.
nodes	Array of objects	Node information. For details, see **Table 4-74**.
time_zone	String	Time zone.
az_mode	String	AZ type. It can be **single** or **multi**.
master_az_code	String	Primary AZ.
maintenance_window	String	Maintenance window in the UTC format.
configuration_id	String	ID of the parameter template used for creating an instance or ID of the latest parameter template that is applied to an instance.
tags	Array of objects	Tags for managing instances. For details, see **Table 4-76**.

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Table 4-72 datastore field data structure description

Name	Type	Description
type	String	DB engine.
version	String	DB version.

Table 4-73 backup_strategy field data structure description

Name	Type	Description
start_time	String	Backup time window. Automated backups will be triggered during the backup time window.
keep_days	Integer	Backup retention days.

Table 4-74 nodes field data structure description

Name	Type	Description
id	String	Node ID.
name	Array of objects	Node name.
type	String	Node type, which can be **master** or **slave**.
status	String	Node status.
port	Integer	Database port.
private_read_ips	Array of strings	Private IP address for read.
volume	Object	Disk information.
az_code	String	AZ.
region_code	String	Region where the DB instance is deployed.
created	String	DB instance creation time.
updated	String	Update time.
flavor_ref	String	Specification code. For details, see **Table 4-6**.
max_connections	String	Maximum number of connections.
vcpus	String	Number of vCPUs.

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Name	Type	Description
ram	String	Memory size in GB.
need_restart	Boolean	Whether to reboot the DB instance for the modifications to take effect.
priority	String	Failover priority.

Table 4-75 volume field data structure description

Name	Type	Description
type	String	Storage type. Currently, only POOL is supported.
used	String	Used storage size in GB.

Table 4-76 tags field data structure description

Name	Type	Description
type	String	Tag key. The value can contain a maximum of 36 Unicode characters. The value cannot be an empty string, a space, or left blank. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed.
used	String	Tag value. The value contains a maximum of 43 Unicode characters and can also be an empty string. Only uppercase letters, lowercase letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.

NOTE

The values of **region_code** and **az_code** are used as examples.

- Example normal response

```
{
  "instance": {
    "id": "d2cda7b97a39488e8b30e3cea4066204in07",
    "name": "gauss-d616-lb07",
    "status": "FAILED",
    "project_id": "053f533ead80d5102f0cc012e8d468a4",
    "enterprise_project_id": "0",
    "type": "Cluster",
    "charge_info": {
      "charge_mode": "postPaid",
      "order_id": ""
```

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```
},
"node_count": 2,
"datastore": {
  "type": "GaussDB(for MySQL)",
  "version": "8.0"
},
"created": "2020-07-21T09:13:56+0800",
"updated": "2020-07-21T09:27:54+0800",
"public_ips": "",
"private_write_ips": [
  "192.168.0.235"
],
"db_user_name": "root",
"port": "3306",
"vpc_id": "f7ee62e2-9705-4523-ba49-a85ea1a1fa87",
"subnet_id": "140af7bf-a9da-4dcf-8837-34199fd6d186",
"security_group_id": "c7f69884-fe2b-4630-8114-70a11499d902",
"backup_strategy": {
  "start_time": "00:00-00:00",
  "keep_days": "0"
},
"nodes": [
  {
    "id": "799a0f2fa49a4151bf9f7063c1fbba36no07",
    "name": "gauss-d616-lb07_node01",
    "type": "master",
    "status": "FAILED",
    "port": 3306,
    "private_read_ips": [
      "192.168.0.163"
    ],
    "volume": {
      "type": "POOL",
      "used": "0.0"
    },
    "az_code": "az1xahz",
    "region_code": "cn-xianhz-1",
    "flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
    "flavor_ref": "gaussdb.large.4",
    "max_connections": null,
    "vcpus": "1",
    "ram": "4",
    "need_restart": false,
    "priority": 1
  },
  {
    "id": "816459d771c444db9fa4c1d5c173cb1cno07",
    "name": "gauss-d616-lb07_node02",
    "type": "slave",
    "status": "FAILED",
    "port": 3306,
    "private_read_ips": [
      "192.168.0.160"
    ],
    "volume": {
      "type": "POOL",
      "used": "0.0"
    },
    "az_code": "az1xahz",
    "region_code": "cn-xianhz-1",
    "flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
    "flavor_ref": "gausssdb.large.4",
```


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```
      "max_connections": null,
      "vcpus": "1",
      "ram": "4",
      "need_restart": false,
      "priority": 1
    }
  ],
  "time_zone": "UTC+08:00",
  "backup_used_space": 0,
  "az_mode": "single",
  "master_az_code": "az1xahz",
  "maintenance_window": "18:00-22:00"
 }
}
```


Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.3.8 Creating a Read Replica

Function

This API is used to create a read replica. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  POST https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/nodes/enlarge

- Example

  POST https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/instances/dsfae23fsfdsae3435in01/nodes/enlarge

- Parameter description

  Table 4-77 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

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Name	Mandatory	Description
instance_id	Yes	Instance ID, which is compliant with the UUID format.

Request

Table 4-78 Parameter description

Name	Mandatory	Type	Description
priorities	Yes	List<Integer>	Failover priority of a read replica. Failover priority ranges from 1 for the first priority to 16 for the last priority. This priority determines the order in which read replicas are promoted when recovering from a primary node failure. Read replicas with the same priority have the same probability of being promoted to the new primary node.
is_auto_pay	No	String	Whether the order will be automatically paid after yearly/monthly instances are created. • **true**: indicates the order will be automatically paid from your account. The default value is **true**. • **false**: indicates the order will be manually paid.

- Request example

```
{
"priorities":[1],

}
```

Response

- Normal response

Table 4-79 Parameter description

Name	Type	Description
instance_id	String	DB instance ID.
node_names	List<String>	Node name.

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Name	Type	Description
job_id	String	ID of the task for creating a read replica.
order_id	String	Order ID. This parameter is returned only when yearly/monthly instances are created.

- Example normal response

```
{
   "instance_id":"f381d0b539e644df8f5b0d3a62129515in07",
   "node_names":["gauss-ccf5_node03"],
   "job_id":"0f6b6a9e-bd39-4e95-9374-e4d134e5a3d1"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.3.9 Deleting a Read Replica

Function

This API is used to delete a read replica. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  DELETE https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/nodes/{node_id}

- Example

  DELETE https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/instances/dsfae23fsfdsae3435in01/nodes/d11ae66fsfdsaer3w3ino9

- Parameter description

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Table 4-80 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	Instance ID, which is compliant with the UUID format.
node_id	Yes	Read-only node ID, which is compliant with the UUID format.

Request

None

Response

- Normal response

  Table 4-81 Parameter description

Name	Type	Description
job_id	String	ID of the task for deleting a read replica.

- Example normal response

```
{
    "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.3.10 Scaling up Storage of a Yearly/Monthly DB Instance

Function

This API is used to scale up storage space of a yearly/monthly DB instance. Before calling this API:

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- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  POST https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/volume/extend

- Example

  POST https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/instances/dsfae23fsfdsae3435in01/volume/extend

- Parameter description

  Table 4-82 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	Instance ID, which is compliant with the UUID format.

Request

Table 4-83 Parameter description

Name	Mandatory	Type	Description
size	Yes	Integer	Storage space after expansion. The value ranges from 40 GB to 128,000 GB. The minimum increment for each scaling is 10 GB.
is_auto_pay	No	String	Whether the order will be automatically paid. • **true**: indicates the order will be automatically paid from your account. The default value is **true**. • **false**: indicates the order will be manually paid.

- Request example

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```
{
"size":50,
"is_auto_pay":"true"
}
```

Response

- Normal response

  Table 4-84 Parameter description

Name	Type	Description
size	Integer	Storage space after expansion.
order_id	String	Order ID.

- Example normal response

```
{
"size":50,
"order_id": "CS20062319501I8NQA"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.3.11 Changing a DB Instance Name

Function

This API is used to change a DB instance name. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  PUT https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/name

- Example

  PUT https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/c3ec2c6148ad4d71b1a8411a62df0d3cin07/name

- Parameter description

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Table 4-85 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	String	Yes	DB instance ID.

Request

Table 4-86 Parameter description

Name	Type	Mandatory	Description
name	String	Yes	DB instance name. Instances of the same type can have same names under the same tenant. The value consists of 4 to 64 characters and starts with a letter. It is case-sensitive and contains only letters, digits, hyphens (-), and underscores (_).

- Request example

```
{
  "name": "gaussdb-name"
}
```

Response

- Normal response

Table 4-87 Parameter description

Name	Type	Description
job_id	String	Task ID for changing an instance name.

- Example normal response

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```
{
"job_id": "0f6b6a9e-bd39-4e95-9374-e4d134e5a3d1"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.3.12 Resetting a Database Password

Function

This API is used to reset a database password. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  POST https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/password
- Example

  POST https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/c3ec2c6148ad4d71b1a8411a62df0d3cin07/password
- Parameter description

  Table 4-88 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	String	No	DB instance ID.

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Request

Table 4-89 Parameter description

Name	Type	Mandatory	Description
password	String	Yes	Database password. Values: The password consists of 8 to 32 characters and contains at least three types of the following: uppercase letters, lowercase letters, digits, and special characters ~!@#$%^*-_=+?,()& You are advised to enter a strong password to improve security and prevent security risks such as brute force cracking. If you enter a weak password, the system automatically determines that the password is invalid.

- Request example

```
{
  "password": "Test_345612"
}
```

Response

- Normal response

  None

- Example normal response

```
{}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

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4.3.13 Modifying DB Instance Specifications

Function

This API is used to change DB instance specifications. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  POST https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/action
- Example

  POST https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/c3ec2c6148ad4d71b1a8411a62df0d3cin07/action
- Parameter description

  Table 4-90 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	String	No	DB instance ID.

Request

Table 4-91 Parameter description

Name	Type	Mandatory	Description
resize_flavor	Object	Yes	For details, see **Table 4-92**.

Table 4-92 resize_flavor field data structure description

Name	Type	Mandatory	Description
spec_code	String	Yes	Specification code.

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- Request example

```
{
  "resize_flavor": {
     "spec_code":"gaussdb.large.4"
  }
}
```

Example Request

Changing instance specifications

```
{
  "resize_flavor" : {
    "spec_code" : "taurus.large.4"
  }
}
```

Example Response

None

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.4 Backup Management

4.4.1 Modifying the Backup Policy

Function

This API is used to modify the backup policy. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  PUT https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/backups/policy/update

- Example

  PUT https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/c3ec2c6148ad4d71b1a8411a62df0d3cin07/backups/policy/update

- Parameter description

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Table 4-93 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	String	No	DB instance ID.

Request

Table 4-94 Parameter description

Name	Type	Mandatory	Description
backup_policy	object	Yes	Backup policy information. For details, see **Table 4-95**.

Table 4-95 backup_policy field data structure description

Name	Type	Mandatory	Description
keep_days	Integer	Yes	Backup retention days. Value range: 1–732.
start_time	String	Yes	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 **00**. Example value: • **21:00-22:00**

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Name	Type	Mandatory	Description
period	String	Yes	Backup cycle configuration. Data will be automatically backed up on the selected days every week. The value is a number separated by commas (,), indicating the days of the week. For example, the value **1,2,3,4** indicates that the backup period is Monday, Tuesday, Wednesday, and Thursday.
retention_num_backup_level1	Integer	No	Number of retained level-1 backups. The default value is **0**. This parameter is mandatory when the level-1 backup function is enabled. This parameter is unavailable when the level-1 backup function is disabled. Values: • **0** • **1**

- Request example

```
{
   "backup_policy": {
      "keep_days": 7,
      "start_time": "19:00-20:00",
      "period": "1,2,3,4,5"
   }
}
```

Response

- Normal response

Table 4-96 Parameter description

Name	Type	Description
status	String	Backup status. Values: • **BUILDING**: Modification in progress • **COMPLETED**: Modification completed • **FAILED**: Modification failed
instance_id	String	DB instance ID.

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Name	Type	Description
instance_name	String	DB instance name.

- Example normal response

```
{
"status": "COMPLETED",
"instance_id": "ef25188419f941309882d2986b2210b9in07",
"instance_name": "gauss-fhc"
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.4.2 Creating a Manual Backup

Function

This API is used to create a manual backup. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  POST https://{endpoint}/mysql/v3/{project_id}/backups/create

- Example

  POST https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/backups/create

- Parameter description

  Table 4-97 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

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Request

Table 4-98 Parameter description

Name	Mandatory	Type	Description
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
name	Yes	String	Backup name. The value consists of 4 to 64 characters and starts with a letter. It is case-sensitive and contains only letters, digits, hyphens (-), and underscores (_).
description	No	String	Backup description. It contains up to 256 characters and cannot contain the following special characters: >!<"&'=

- Request example

```
{
  "instance_id": "d8e6ca5a624745bcb546a227aa3ae1cfin01",
  "name": "backup-1",
  "description": "manual backup"
}
```

Response

- Normal response

Table 4-99 Parameter description

Name	Type	Description
backup	Object	Backup information. For details, see **Table 4-100**.

Table 4-100 backup field data structure description

Name	Type	Description
id	String	Backup ID.
name	String	Backup name.
description	String	Backup description.

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Name	Type	Description
begin_time	String	Backup start time in the "yyyy-mm-ddThh:mm:ssZ" format, where "T" indicates the start time of the time field, and "Z" indicates the time zone offset.
status	String	Backup status. Values: • **BUILDING**: Backup in progress • **COMPLETED**: Backup completed • **FAILED**: Backup failed • **AVAILABLE**: Backup available
type	String	Backup type. Value: • **manual**: manual full backup
instance_id	String	DB instance ID.

- Example normal response

```
{
"backup": {
"id": "2f4ddb93-b901-4b08-93d8-1d2e472f30fe",
"name": "backup-1",
"begin_time": "2020-07-07T01:17:05+0800",
"status": "BUILDING",
"type": "manual",
"instance_id": "d8e6ca5a624745bcb546a227aa3ae1cfin01",
"description": "desc"
}
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.4.3 Querying Backups

Function

This API is used to query backups according to search criteria. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

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URI

- URI format

  GET https://{endpoint}/mysql/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}

- Example

  GET https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/backups?instance_id=c3ec2c6148ad4d71b1a8411a62df0d3cin07&backup_id=43e4feaab48f11e89039fa163ebaa7e4br01&backup_type=auto&offset=0&limit=10&begin_time=2020-07-06T10:41:14+0800&end_time=2020-07-16T10:41:14+0800

- Parameter description

  Table 4-101 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	String	No	DB instance ID.
backup_id	String	No	Backup ID.
backup_type	String	No	Backup type. Values: • **auto**: automated full backup • **manual**: manual full backup
offset	String	No	Index offset. If **offset** is set to *N*, the resource query starts from the N+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	String	No	Number of records to be queried. The default value is **100**. The value must be a positive integer. The minimum value is **1** and the maximum value is **100**.
begin_time	String	No	Query start 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.

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Name	Type	Mandatory	Description
end_time	String	No	Query end time. The format is "yyyy-mm-ddThh:mm:ssZ" and the end time must be later than the start time. **T** is the separator between the calendar and the hourly notation of time. **Z** indicates the time zone offset.

Request

None

Response

- Normal response

Table 4-102 Parameter description

Name	Type	Description
backups	Array of objects	Backup information. For details, see **Table 4-103**.
total_count	Integer	Total number of records.

Table 4-103 backups field data structure description

Name	Type	Description
id	String	Backup ID.
name	String	Backup name.
begin_time	String	Backup 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.
end_time	String	Backup 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.

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Name	Type	Description
status	String	Backup status. Values: • **BUILDING**: Backup in progress • **COMPLETED**: Backup completed • **FAILED**: Backup failed • **AVAILABLE**: Backup available
take_up_time	Integer	Backup duration in minutes.
type	String	Backup type. Values: • **auto**: automated full backup • **manual**: manual full backup
size	Double	Backup size in MB.
datastore	Object	Database information. For details, see **Table 4-104**.
instance_id	String	DB instance ID.
backup_level	String	Backup level. This parameter is returned when the level-1 backup function is enabled. Values: • **1**: level-1 backup • **2**: level-2 backup • **0**: Backup being created or creation failed

Table 4-104 datastore field data structure description

Name	Type	Description
type	String	DB engine.
version	String	DB version.

- Example normal response

```
{
"backups": [{
"id": "43e4feaab48f11e89039fa163ebaa7e4br01",
"name": "TaurusDB-gauss-e747-20200705185048266",
"begin_time": "2018-08-06T12:41:14+0800",
"end_time": "2018-08-06T12:45:14+0800",
"take_up_time": 2,
"status": "COMPLETED",
"type": "auto",
"size": 2803,
"datastore": {
"type": "gaussdb-mysql",
"version": "8.0"
},
```


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"instance_id": "c3ec2c6148ad4d71b1a8411a62df0d3cin07",
"backup_level": "2"
}],
"total_count": 1
}

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.4.4 Querying an Automated Backup Policy

Function

This API is used to query an automated backup policy. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  GET https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/backups/policy
- Example

  GET https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/c3ec2c6148ad4d71b1a8411a62df0d3cin07/backups/policy
- Parameter description

  Table 4-105 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	String	Yes	DB instance ID.

Request

None

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Response

- Normal response

Table 4-106 Parameter description

Name	Type	Description
backup_policy	object	Backup policy information. For details, see **Table 4-107**.

Table 4-107 backup_policy field data structure description

Name	Type	Description
keep_days	Integer	Backup retention days. Value range: 1–732. Minimum value: **1**. Maximum value: **732**
start_time	String	Backup time window. Automated backups will be triggered during the backup time window. The value must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format.
period	String	Backup cycle configuration. Data will be automatically backed up on the selected days every week. The value is a number separated by commas (,), indicating the days of the week.
retention_num_backup_level1	Integer	Number of retained level-1 backups. This parameter is returned when level-1 backup is enabled.

- Example normal response

```
{
"backup_policy": {
"keep_days": 7,
"start_time": "19:00-20:00",
"period": "1,2",
" retention_num_backup_level1": 1
}
}
```


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Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.5 Parameter Template Management

4.5.1 Querying Parameter Templates

Function

This API is used to query parameter templates, including all databases' default and custom parameter templates. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format
- Example

  GET https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/configurations
- Parameter description

  Table 4-108 Parameter description

Name	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

Request

None

Response

- Normal response

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Table 4-109 Parameter description

Name	Type	Description
configurations	Array of objects	Parameter template list. For details, see **Table 4-110**.
total_count	Integer	Total number of parameter templates.

Table 4-110 configuration field data structure description

Name	Type	Description
id	String	Parameter template ID.
name	String	Parameter template name.
description	String	Parameter template description.
datastore_version_name	String	DB version name.
datastore_name	String	DB name.
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	Whether the parameter template is a custom template. • **false**: The parameter template is a default template. • **true**: The parameter template is a custom template.

- Example normal response

```
{
   "configurations":[
      {
         "id":"1ad028f5f6b8482483948860feb33339pr07",
         "name":"DBS_GaussDB_ParameterTemple_Apply_001",
         "description":"GaussDB-Test",
         "datastore_version_name":"8.0",
         "datastore_name":"gaussdb-mysql",
```


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```
            "created":"2020-04-08 07:12:17",
            "updated":"2020-04-08 07:12:17",
            "user_defined":true,
        }
]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.6 Quota Management

4.6.1 Querying the Instance Quotas of a Tenant

Function

This API is used to modify the resource quotas of a specified enterprise project. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /mysql/v3/{project_id}/project-quotas

Table 4-111 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. To obtain this value, see **Obtaining a Project ID**.

Table 4-112 Query parameters

Parameter	Mandatory	Type	Description
type	No	String	Resource type used to filter quotas. Its value can be **instance**.

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Request Parameters

Table 4-113 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token.
X-Language	No	String	Language.

Response Parameters

Status code: 200

Table 4-114 Response body parameters

Parameter	Type	Description
quotas	Object	Tenant instance quota information.

Table 4-115 project-quotas

Parameter	Type	Description
resources	Array of objects	Resource list objects.

Table 4-116 resource

Parameter	Type	Description
type	String	Quota of the specified type. The value is **instance**, which indicates the instance quota.
used	Integer	Number of created resources.
quota	Integer	Maximum resource quota.

Status code: 400

Table 4-117 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

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Parameter	Type	Description
error_msg	String	Error message.

Status code: 500

Table 4-118 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

```
GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/quotas?type=instance
```

Example Response

Status code: 200

Success.

```
{
  "quotas" : {
    "resources" : [ {
      "type" : "instance",
      "used" : 4,
      "quota" : 50
    } ]
  }
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see **Error Codes**.

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4.6.2 Querying Resource Quotas

Function

This API is used to obtain the resource quotas of a specified enterprise project. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  GET https://{endpoint}/mysql/v3/{project_id}/quotas

- Example

  GET https://{endpoint}/mysql/v3/619d3e78f61b4be68bc5aa0b59edcf7b/quotas

- Parameter description

  Table 4-119 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
offset	No	Index offset. If **offset** is set to *N*, the resource query starts from the N+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	Number of records to be queried. The default value is **10**. The value must be a positive integer. The minimum value is **1** and the maximum value is **100**.
enterprise_project_name	No	Enterprise project name.

Request

None

Response

- Parameter description

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Table 4-120 Parameter description

Name	Type	Description
quota_list	Array of objects	Quota information list. For details, see **Table 4-121**.
total_count	Integer	Number of quota records.

Table 4-121 quota_list field data structure description

Name	Type	Description
enterprise_project_id	String	Enterprise project ID.
enterprise_project_name	String	Enterprise project name.
instance_quota	Integer	Quota of the DB instance quantity.
vcpus_quota	Integer	Quota of vCPUs.
ram_quota	Integer	Memory quota in GB.
availability_instance_quota	Integer	Remaining quota of DB instances.
availability_vcpus_quota	Integer	Remaining quota of vCPUs.
availability_ram_quota	Integer	Remaining memory quota.

- Example response

```
"quota_list": [
 {
   "enterprise_project_id": "0",
   "enterprise_project_name":"default",
   "instance_quota": 20,
   "vcpus_quota": 20,
   "ram_quota": 40,
   "availability_instance_quota": 1,
   "availability_vcpus_quota ": 4,
   "availability_ram_quota": 8
 },
 {
   "enterprise_project_id": "d72ebb42-9110-464c-a8e2-f9b9f349f80f",
   "enterprise_project_name":"eps_auto_test",
   "instance_quota": 0,
   "vcpus_quota": 0,
   "ram_quota": 0,
   "availability_instance_quota ": 1,
   "availability_vcpus_quota ": 4,
   "availability_ram_quota ": 8
 }
],
```


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```
"total_count": 2
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.6.3 Configuring Resource Quotas

Function

This API is used to configure resource quotas for a specified enterprise project. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  POST https://{endpoint}/mysql/v3/{project_id}/quotas

- Example

  POST https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/quotas

- Parameter description

  Table 4-122 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

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4.6.4 Modifying Resource Quotas

Function

This API is used to modify the resource quotas of a specified enterprise project. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  PUT https://{endpoint}/mysql/v3/{project_id}/quotas

- Example

  PUT https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/quotas

- Parameter description

  Table 4-123 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.

Request

- Parameter description

  Table 4-124 quota_list field data structure description

Name	Type	Description
enterprise_project_id	String	Enterprise project ID.
instance_quota	Integer	Quota of the DB instance quantity. Value range: 0–1000. (If there are already DB instances created, this parameter value must be at least the number of existing DB instances.)
vcpus_quota	Integer	Quota of vCPUs. Value range: 0–3600000. (If there are already DB instances created, this parameter value must be at least the number of used vCPUs.)

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Name	Type	Description
ram_quota	Integer	Memory quota in GB. Memory quota in GB. Value range: 0–19200000. (If there are already DB instances created, this parameter value must be at least the used memory size.)

- Request example

```
{
  "quota_list": [
    {
      "enterprise_project_id": "0",
      "instance_quota": 1,
      "vcpus_quota": 4,
      "ram_quota": 8
    }
  ]
}
```

Response

- Parameter description

Table 4-125 Parameter description

Name	Type	Description
quota_list	Array of objects	Configured quota information. For details, see **Table 4-126**.

Table 4-126 quota_list field data structure description

Name	Type	Description
enterprise_project_id	String	Enterprise project ID.
instance_quota	Integer	Quota of the DB instance quantity.
vcpus_quota	Integer	Quota of vCPUs.
ram_quota	Integer	Memory quota in GB.

- Example response

```
{
  "quota_list": [
    {
      "enterprise_project_id": "0",
      "instance_quota": 1,
      "vcpus_quota": 4,
      "ram_quota": 8
    }
```


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```
 ]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.7 Database Proxy

4.7.1 Creating Proxy Instance

Function

This API is used to create a proxy instance in ELB mode. Before calling this API:

- Proxy instances are unavailable for DB instances in a DeC.
- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format
  POST https://{endpoint}/mysql/v3/{project_id}/instances/{*instance_id*}/proxy
- Example
- Parameter description

Table 4-127 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	DB instance ID.

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Request

Table 4-128 Parameter description

Name	Mandatory	Type	Description
flavor_ref	Yes	String	Proxy specification code.
node_num	Yes	Integer	Number of proxy instance nodes. It is an integer from 2 to 32.

- Request example

  {
  " flavor_ref ":"gaussdb.mysql.large.x86.4",
  " node_num ":2
  }

Response

- Normal response

  Table 4-129 Parameter description

Name	Type	Description
job_id	String	Job ID for creating a proxy instance.

  - Example normal response

    {
    " job_id ":"3a4ea53b-3c6c-4f88-9dd0-e21ed77b7e6a"
    }

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.7.2 Deleting a Proxy Instance

Function

This API is used to delete a proxy instance. Before calling this API:

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- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.
- Proxy instances are unavailable for DB instances in a DeC.

URI

- URI format

  DELETE https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/proxy
- Example
- Parameter description

  Table 4-130 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	Instance ID, which is compliant with the UUID format.

Request

None

Response

- Normal response

  Table 4-131 Parameter description

Name	Type	Description
job_id	String	Job ID for deleting a proxy instance.

- Example normal response

```
{
    "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see **Status Codes**.

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Error Code

For details, see **Error Codes**.

4.7.3 Querying Information About a Proxy Instance

Function

This API is used to query information of a proxy instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/proxy

Table 4-132 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID.

Request Parameters

Table 4-133 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token.
X-Language	No	String	Language.

Response Parameters

Status code: 200

Table 4-134 Response body parameters

Parameter	Type	Description
proxy	**MysqlProxy** object	Proxy instance information.

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Parameter	Type	Description
master_node	**MysqlProxyNode** object	Primary node information.
readonly_nodes	Array of **MysqlProxyNode** objects	Read replica information.

Table 4-135 MysqlProxy

Parameter	Type	Description
pool_id	String	Proxy instance ID.
status	String	Operating status of the proxy instance. Value: **closed**, **open**, **frozen**, **opening**, **closing**, **enlarging**, **freezing**, or **unfreezing**.
address	String	Proxy address.
port	Integer	Proxy port information.
pool_status	String	Proxy instance status. Value: **ACTIVE**, **BUILD**, **FAILED**, or **DELETED**.
delay_threshold_in_seconds	Integer	Delay threshold in seconds.
elb_vip	String	Virtual IP address in ELB mode.
eip	String	EIP information.
vcpus	String	Number of vCPUs of the proxy instance.
ram	String	Memory size of the proxy instance.
node_num	Integer	Number of proxy nodes.
mode	String	Proxy instance mode. The value is **Cluster**.
nodes	Array of **MysqlProxyNodes** objects	Proxy node information.
flavor_ref	String	Proxy specifications.
name	String	Proxy instance name.

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Table 4-136 MysqlProxyNodes

Parameter	Type	Description
id	String	Proxy node ID.
status	String	Proxy node status. Value: **normal**, **abnormal**, **creating**, or **deleted**.
name	String	Proxy node name.
role	String	Role of the proxy node. It can be **master** or **slave**.
az_code	String	AZ.
frozen_flag	Integer	Whether the proxy node is frozen. It can be **0** (unfrozen), **1** (frozen), or **2** (deleted after being frozen).

Table 4-137 MysqlProxyNode

Parameter	Type	Description
id	String	Node ID.
instance_id	String	Instance ID.
status	String	Node status.
name	String	Node name.
weight	Integer	Read weight of the node.
available_zones	Array of **MysqlProxyAvailable** objects	AZ information.

Table 4-138 MysqlProxyAvailable

Parameter	Type	Description
code	String	AZ code.
description	String	AZ description.

Status code: 400

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Table 4-139 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-140 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
096c0fc43e804757b59946b80dc27f8bin07/proxy
```

Example Response

Status code: 200

Success.

```
{
  "proxy" : {
    "pool_id" : "2e7cf21d14794bafab623a334efd9ad8po01",
    "status" : "open",
    "address" : "192.168.125.69",
    "port" : 3306,
    "pool_status" : "ACTIVE",
    "delay_threshold_in_seconds" : 30,
    "elb_vip" : "192.168.125.60",
    "eip" : "192.168.125.50",
    "vcpus" : 4,
    "ram" : 8,
    "node_num" : 2,
    "mode" : "Cluster",
    "nodes" : {
      "id" : "db53a238a02240c49365e72e284a4890pn01",
      "name" : "PROXY-2e7cf21d14794bafab623a334efd9ad8po01_0",
      "role" : "master",
      "az_code" : "az1xahz",
      "status" : "ACTIVE",
      "frozen_flag" : 0
    },
    "name" : "proxy-name"
  },
  "master_node" : {
    "id" : "5ee8010ab992460d8d9cffcc5edabb59no07",
    "instance_id" : "7a871d6d494e4327ad2e326afb591108in07",
    "status" : "ACTIVE",
    "name" : "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node01",
    "weight" : 0,
```


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```
    "available_zones" : {
      "code" : "az1xahz",
        "description": "AZ1"
    }
  },
  "readonly_nodes" : {
    "id" : "d23535333138462880bfa1838fdfced2no07",
    "instance_id" : "7a871d6d494e4327ad2e326afb591108in07",
    "status" : "ACTIVE",
    "name" : "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node02",
    "weight" : 100,
    "available_zones" : {
      "code" : "az1xahz",
        "description": "AZ1"
    }
  }
}
```


Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.7.4 Querying Proxy Instance Information

Function

This API is used to query information of a proxy instance. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.
- Proxy instances are unavailable for DB instances in a DeC.

URI

- URI format

  GET https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/proxy
- Example
- Parameter description

Table 4-141 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	String	Yes	DB instance ID.

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Request

None

Response

- Normal response

Table 4-142 Parameter description

Name	Type	Description
proxy	Object	Proxy instance information. For details, see **Table 4-143**.
master_node	Object	Primary node. For details, see **Table 4-144**.
readonly_nodes	Array of Object	Read replica information. For details, see **Table 4-145**.

Table 4-143 proxy field data structure description

Name	Type	Description
pool_id	String	Proxy instance ID.
status	String	Whether the proxy instance is enabled. It can be **closed**, **open**, **frozen**, **opening**, **closing**, **enlarging**, **freezing**, or **unfreezing**.
address	String	Proxy address.
port	Integer	Proxy port information.
pool_status	String	Proxy instance status. It can be **abnormal**, **normal**, **creating**, or **deleted**.
delay_threshold_in_seconds	Integer	Delay threshold in seconds.
elb_vip	String	Virtual IP address in ELB mode.
eip	String	EIP information.
vcpus	String	Number of vCPUs of the proxy instance.

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Name	Type	Description
ram	String	Memory size of the proxy instance.
node_num	Integer	Number of proxy nodes.
mode	String	Proxy instance mode. The value is **Cluster**.
nodes	Object	Proxy node information. For details, see **Table 4-146**.
flavor_ref	String	Proxy specification code.

Table 4-144 master_node data structure description

Name	Type	Description
id	String	Primary node ID.
instance_id	String	DB instance ID.
status	String	Primary node status.
name	String	Primary node name.
weight	Integer	Read/write splitting weight of the primary node.
available_zones	Array of object	AZ information. For details, see **Table 4-147**.

Table 4-145 readonly_nodes field data structure description

Name	Type	Description
id	String	Read replica ID.
instance_id	String	DB instance ID.
status	String	Read replica status.
name	String	Read replica name.
weight	Integer	Read weight of read replicas.
available_zones	Array of object	AZ information.

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Table 4-146 nodes field data structure description

Name	Type	Description
id	String	Proxy node ID.
status	String	Proxy node status. It can be **normal**, **abnormal**, **creating**, or **deleted**.
name	String	Proxy node name.
role	String	Role of the proxy node. It can be **master** or **slave**.
az_code	String	AZ.
frozen_flag	Integer	Whether the proxy node is frozen. It can be **0** (unfrozen), **1** (frozen), or **2** (deleted after being frozen).

Table 4-147 available_zones field data structure description

Name	Type	Description
code	String	AZ code.
description	String	AZ description.

- Example normal response

```
{
"proxy":{
"pool_id":null,
"status":"closed",
"address":null,
"port":null,
"pool_status":null,
"delay_threshold_in_seconds":null,
"elb_vip":null,
"eip":null,
"vcpus":null,
"ram":null,
"node_num":null,
"mode":null,
"nodes":[
],
"flavor_ref": "gaussdb.proxy.xlarge.arm.2"
},
```


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"master_node":{
"id":"294daeb0ec9e4c4eacaf2c6dbd8246a9no07",
"instance_id":"71215aadf19c428db088e51b157583f2in07",
"status":"ACTIVE",
"name":"BUG-gauss-dw_node01",
"weight":null,
"available_zones":[
{
"code":"az1xahz",
"description":"az1xahz"
}
]
},
"readonly_nodes":[
{
"id":"b36d70cc3c3b4ef680e34c5b25b168dano07",
"instance_id":"71215aadf19c428db088e51b157583f2in07",
"status":"ACTIVE",
"name":"BUG-gauss-dw_node02",
"weight":null,
"available_zones":[
{
"code":"az1xahz",
"description":"az1xahz"
}
]
}
]
}

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.7.5 Querying Proxy Instance Specifications

Function

This API is used to query proxy instance specifications. Before calling this API:

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- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.
- Proxy instances are unavailable for DB instances in a DeC.

URI

- URI format

  GET https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/proxy/flavors
- Example
- Parameter description

Table 4-148 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	String	Yes	DB instance ID.

Request

None

Response

- Normal response

Table 4-149 Parameter description

Name	Type	Description
proxy_flavor_groups	Array of Object	Proxy specification groups. For details, see **Table 4-150**.

Table 4-150 proxy_flavor_groups field data structure description

Name	Type	Description
group_type	String	Specification group type. It can be **x86** or **arm**.

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Name	Type	Description
proxy_flavors	Array of Object	Proxy specifications. For details, see Table 4-151.

Table 4-151 proxy_flavors field data structure description

Name	Type	Description
id	String	Proxy specification ID.
spec_code	String	Proxy specification code.
vcpus	String	Number of vCPUs. For example, the value **1** indicates 1 vCPU.
ram	String	Memory size in GB.
db_type	String	Database type.
az_status	Map<String, String>	**key** indicates the AZ ID and **value** indicates the status of the AZ where the proxy specifications reside. It can be **normal** or **unsupported**.

- Example normal response

```
{
"proxy_flavor_groups":[
{
"group_type":"x86",
"proxy_flavors":[
{
"id":"19be4c5d-d363-3342-bdbc-0dd9dbf7fafe",
"spec_code":"gaussdb.proxy.large.x86.2",
"vcpus":"2",
"ram":"4",
"db_type":"Proxy",
"az_status":{
"az1xahz":"normal"
}
}
]
},
{
"group_type":"arm",
"proxy_flavors":[
```


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{
"id":"2ff9a704-f238-3e7a-9ed2-208c2542c8b9",
"spec_code":"gaussdb.proxy.large.arm.2",
"vcpus":"2",
"ram":"4",
"db_type":"Proxy",
"az_status":{
"az1xahz":"normal"
}
}
]
}
]
}

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.7.6 Adding Proxy Nodes

Function

This API is used to add proxy nodes. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.
- Proxy instances are unavailable for DB instances in a DeC.

URI

- URI format

  POST https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/proxy/enlarge
- Example
- Parameter description

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Table 4-152 Parameter description

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request

Table 4-153 Parameter description

Parameter	Mandatory	Type	Description
node_num	Yes	Integer	The number of proxy nodes to be added. The value is an integer from 1 to 30. Restrictions: The total number of proxy nodes for an instance is no more than 32.

- Request example

```
{
  "node_num" : 2
}
```

Response

- Normal response

Table 4-154 Parameter description

Parameter	Type	Description
job_id	String	Task ID.

– Example normal response

```
{
"job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"
}
```


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Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.8 Log Management

4.8.1 Querying Database Error Logs

Function

This API is used to query database error logs. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  GET https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/errorlog?offset={offset}&limit={limit}&level={level}&start_date={start_date}&end_date={end_date}&node_id={node_id}

- Example

  GET https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/c3ec2c6148ad4d71b1a8411a62df0d3cin07/errorlog?offset=0&limit=100&level=ALL&start_date=2018-08-06T10:41:14+0800&end_date=2018-08-07T10:41:14+0800&node_id=cc07c60e94ec4575989840e648fb4f66no07

- Parameter description

  Table 4-155 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	String	Yes	DB instance ID.
node_id	String	Yes	Instance node ID.

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Name	Type	Mandatory	Description
start_date	String	Yes	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.
end_date	String	Yes	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.
offset	Integer	No	Index offset. If **offset** is set to *N*, the resource query starts from the N+1 piece of data. The default value is **0**, indicating that the query starts from the first piece of data. The value must be an integer and the minimum value is **0**.
limit	Integer	No	Number of records to be queried. The default value is **10**. The value must be a positive integer. The minimum value is **1** and the maximum value is **100**.
level	String	No	Log level. The default value is **ALL**. Values: • **ALL** • **INFO** • **WARNING** • **ERROR** • **FATAL** • NOTE

Request

None

Response

- Normal response

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Table 4-156 Parameter description

Name	Type	Description
error_log_list	Array of objects	Error log details. For details, see Table 3.
total_record	Integer	Total number of records.

Table 4-157 error_log_list parameter description

Name	Type	Description
node_id	String	Node ID.
time	String	Time in the UTC format.
level	String	Log level. • **ALL** • **INFO** • **WARNING** • **ERROR** • **FATAL** • NOTE
content	String	Error log content.

- Example normal response

```
{
"error_log_list":[
{
"node_id":"cc07c60e94ec4575989840e648fb4f66no07",
"time":" 2021-03-06T12:07:05",
"level":"ERROR",
"content":"[MY013508] [Repl] do failed: 1"
}
],
"total_record":15
}
```

Status Code

For details, see **Status Codes**.

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Error Code

For details, see **Error Codes**.

4.8.2 Querying Database Error Logs

Function

This API is used to query database error logs. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/errorlog

Table 4-158 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID.

Table 4-159 Query parameters

Parameter	Mandatory	Type	Description
start_date	Yes	String	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.
end_date	Yes	String	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.

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Parameter	Mandatory	Type	Description
offset	No	Integer	Index offset. If **offset** is set to *N*, the resource query starts from the N+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	Integer	Number of records to be queried. The default value is **100**. The value must be a positive integer. The minimum value is **1** and the maximum value is **100**.
level	No	String	Log level. The default value is **ALL**. Values: • **ALL** • **INFO** • **WARNING** • **ERROR** • **FATAL** • NOTE
node_id	Yes	String	Node ID.

Request Parameters

Table 4-160 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token.
X-Language	No	String	Language.

Response Parameters

Status code: 200

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Table 4-161 Response body parameters

Parameter	Type	Description
error_log_list	Array of **MysqlErrorLogList** objects	Error log details.
total_record	Integer	Total number of records.

Table 4-162 MysqlErrorLogList

Parameter	Type	Description
node_id	String	Node ID.
time	String	Time in the UTC format.
level	String	Log level. • **ALL** • **INFO** • **WARNING** • **ERROR** • **FATAL** • NOTE
content	String	Error log content.

Status code: 400

Table 4-163 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-164 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

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Example Request

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
096c0fc43e804757b59946b80dc27f8bin07/errorlog?
offset=0&limit=1&level=ALL&start_date=2022-07-10T00:00:00+0800&end_date=2022-07-19T00:00:00+0800&
node_id=cc07c60e94ec4575989840e648fb4f66no07
```

Example Response

Status code: 200

Success.

```
{
  "error_log_list" : [ {
    "node_id" : "cc07c60e94ec4575989840e648fb4f66no07",
    "time" : "2022-07-17T07:34:33",
    "level" : "ERROR",
    "content" : "[MY013508] [Repl] do failed: 1"
  } ]
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.8.3 Querying Database Slow Logs

Function

This API is used to query database slow logs. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  GET https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/slowlog?offset={offset}&limit={limit}&level={level}&start_date={start_date}&end_date={end_date}&node_id={node_id}

- Example

  GET https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/c3ec2c6148ad4d71b1a8411a62df0d3cin07/slowlog?offset=0&limit=100&level=ALL&start_date=2018-08-06T10:41:14+0800&end_date=2018-08-07T10:41:14+0800&node_id=cc07c60e94ec4575989840e648fb4f66no07

  – Parameter description

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Table 4-165 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	String	Yes	DB instance ID.
node_id	String	Yes	Instance node ID.
start_date	String	Yes	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.
end_date	String	Yes	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.
offset	Integer	No	Index offset. If **offset** is set to *N*, the resource query starts from the N+1 piece of data. The default value is **0**, indicating that the query starts from the first piece of data. The value must be an integer and the minimum value is **0**.
limit	Integer	No	Number of records to be queried. The default value is **10**. The value must be a positive integer. The minimum value is **1** and the maximum value is **100**.

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Name	Type	Mandatory	Description
type	String	No	Statement type. The default value **All**. If this parameter is left empty, all statement types are queried. Values: • **ALL** • **INSERT** • **UPDATE** • **SELECT** • **DELETE** • **CREATE** • **DROP** • **ALTER**

Request

None

Response

- Normal response

Table 4-166 Parameter description

Name	Type	Description
slow _log_list	Array of objects	Slow log information. For details, see Table 3.
long_query_time	String	Threshold of slow logs in seconds.
total_record	Integer	Total number of records.

Table 4-167 error_log_list parameter description

Name	Type	Description
node_id	String	Node ID.
time	String	Execution time.
count	String	Number of executions.
lock_time	String	Lock wait time.
rows_sent	String	Number of sent rows.

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Name	Type	Description
rows_examined	String	Number of scanned rows.
database	String	Database which slow logs belong to.
users	String	Account.
query_sample	String	Execution syntax.
type	String	Statement type.
start_time	String	Time in the UTC format.
client_ip	String	IP address.

- Example normal response

{
"slow_log_list":[
{
"node_id":"cc07c60e94ec4575989840e648fb4f66no07",
"count":"1",
"time":"1.04899 s",
"lock_time":"0.00003 s",
"rows_sent":"0",
"rows_examined":"0",
"database":"gaussdb-mysql",
"users":"root",
"query_sample":"INSERT INTO time_zone_name (Name, Time_zone_id) VALUES (N, @time_zone_id);",
"type":"INSERT",
"start_time":"2121-03-25T10:55:16",
"client_ip ":"192.*.*.1"
}
],
"long_query_time":" 10",
"total_record":15
}

Status Code

For details, see **Status Codes**.

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Error Code

For details, see **Error Codes**.

4.8.4 Querying Database Slow Logs

Function

This API is used to query database slow logs. Before calling this API:

- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

GET /v3/{project_id}/instances/{instance_id}/slowlog

Table 4-168 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
instance_id	Yes	String	Instance ID.

Table 4-169 Query parameters

Parameter	Mandatory	Type	Description
start_date	Yes	String	Start time in the "yyyy-mm-ddThh:mm:ssZ" format.
end_date	Yes	String	End time in the "yyyy-mm-ddThh:mm:ssZ" format. Only error logs generated within the last month can be queried.
offset	No	Integer	Index offset. If **offset** is set to *N*, the resource query starts from the N+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.

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Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records to be queried. The default value is **100**. The value must be a positive integer. The minimum value is **1** and the maximum value is **100**.
type	No	String	Statement type. The default value **All**. If this parameter is left empty, all statement types are queried. Values: • **ALL** • **INSERT** • **UPDATE** • **SELECT** • **DELETE** • **CREATE** • **DROP** • **ALTER**
node_id	Yes	String	Node ID.

Request Parameters

Table 4-170 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token.
X-Language	No	String	Language.

Response Parameters

Status code: 200

Table 4-171 Response body parameters

Parameter	Type	Description
slow_log_list	Array of **MysqlSlowLogList** objects	Error log details.

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Parameter	Type	Description
long_query_time	String	Slow query log threshold.
total_record	Integer	Total number of records.

Table 4-172 MysqlSlowLogList

Parameter	Type	Description
node_id	String	Node ID.
count	String	Number of executions.
time	String	Execution time.
lock_time	String	Lock wait time.
rows_sent	String	Number of sent rows.
rows_examined	String	Number of scanned rows.
database	String	Database which slow logs belong to.
users	String	Account.
query_sample	String	Execution syntax.
type	String	Statement type.
start_time	String	Start time in the UTC format.
client_ip	String	IP address.

Status code: 400

Table 4-173 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

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Table 4-174 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/096c0fc43e804757b59946b80dc27f8bin07/slowlog?offset=0&limit=1&start_date=2022-07-10T00:00:00+0800&end_date=2022-07-19T00:00:00+0800&node_id=cc07c60e94ec4575989840e648fb4f66no07&type=INSERT
```

Example Response

Status code: 200

Success.

```
{
  "slow_log_list" : [ {
    "node_id" : "cc07c60e94ec4575989840e648fb4f66no07",
    "count" : 1,
    "time" : "1.04899 s",
    "lock_time" : "0.00003 s",
    "rows_sent" : 0,
    "rows_examined" : 0,
    "database" : "gaussdb-mysql",
    "users" : "root",
    "query_sample" : "INSERT INTO time_zone_name (Name, Time_zone_id) VALUES (N @time_zone_id);",
    "type" : "INSERT",
    "start_time" : "2121-03-25T10:55:16.000Z",
    "client_ip" : "192.*.*.1"
  } ],
  "long_query_time" : 10,
  "total_record" : 15
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

4.9 Task Information Queries

4.9.1 Obtaining Information About a Task

Function

This API is used to obtain task information from the task center. Before calling this API:

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- Learn how to **authorize and authenticate** it.
- Obtain the required **region and endpoint**.

URI

- URI format

  GET https://{endpoint}/mysql/v3/{project_id}/jobs?id={id}

- Example

  GET https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/jobs?id=a9767ede-fe0f-4888-9003-e843a4c90514

- Parameter description

  Table 4-175 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see **Obtaining a Project ID**.
id	Yes	Task ID.

Request

None

Response

- Normal response

  Table 4-176 Parameter description

Name	Type	Description
job	Object	Task information. For details, see **Table 4-177**.

  Table 4-177 job field data structure description

Name	Type	Description
id	String	Task ID.
name	String	Task name.

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Name	Type	Description
status	String	Task execution status. Values: • **Running**: The task is being executed. • **Completed**: The task is successfully executed. • **Failed**: The task failed to be executed.
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.
ended	String	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.
process	String	Task execution progress.
instance	Object	DB instance on which the task is executed. For details, see **Table 4-178**.
entities	Object	Displayed information varies depending on tasks. For details, see **Table 4-179**.
fail_reason	String	Task failure information.

Table 4-178 instances field data structure description

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

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Table 4-179 entities field data structure description

Name	Type	Description
instance	Object	DB instance queried in the task. For details, see **Table 4-180**.
resource_ids	List<String>	Resource ID involved in a task.

Table 4-180 entities.instance field data structure description

Name	Type	Description
endpoint	String	DB instance connection address.
type	String	DB instance type.
datastore	Object	DB information. For details, see **Table 4-181**.

Table 4-181 datastore field data structure description

Name	Type	Description
type	String	DB engine.
version	String	DB version.

Table 4-182 entities field data structure description (binding or unbinding an EIP)

Name	Type	Description
public_ip	String	EIP used in the task.

NOTE

In the response example, some tasks in the task center are used as examples.

- Example normal response

```
{
  "job": {
    "id": "31b8ae23-c687-4d80-b7b4-42a66c9bb886",
    "name": " RestartGaussDBInstance",
    "status": "Completed",
    "created": "2018-08-06T10:41:14+0000",
    "ended": "2018-08-06T16:41:14+0000",
    "process": "",
    "instance": {
      "id": "a48e43ff268f4c0e879652d65e63d0fbin01",
```


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```
    "name": "DO-NOT-TOUCH-mgr2-gaussdb"
   },
   "entities": {}
   }
}
```

Status Code

For details, see **Status Codes**.

Error Code

For details, see **Error Codes**.

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5 Permissions Policies and Supported Actions

5.1 Permissions Policies and Supported Actions

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

By default, new IAM users do not have permissions assigned. You need to add a user to one or more groups, and attach permissions policies or roles to these groups. Users inherit permissions from the groups to which they are added and can perform specified operations on cloud services based on the permissions.

You can grant users permissions by using **Roles** and **Policies**. Roles are a type of coarse-grained authorization mechanism that defines permissions related to user responsibilities. Policies define API-based permissions for operations on specific resources under certain conditions, allowing for more fine-grained, secure access control of cloud resources.

NOTE

Policy-based authorization is useful if you want to allow or deny the access to an API.

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 GaussDB instances using an API, the user must have been granted permissions that allow the **gaussdb:instance:list** action.

Supported Actions

TaurusDB provides system-defined policies that can be directly used in IAM. You can also create custom policies to supplement system-defined policies for more refined access control. Operations supported by policies are specific to APIs. The following are common concepts related to policies:

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- 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.
- Related actions: Actions on which a specific action depends to take effect. When assigning permissions for the action to a user, you also need to assign permissions for the dependent actions.
- 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 supporting both IAM and enterprise projects can be assigned to user groups and take effect in both IAM and Enterprise Management. Policies that only contain actions supporting IAM projects can be assigned to user groups and only take effect for IAM. Such policies will not take effect if they are assigned to user groups in Enterprise Management. For details about the differences between IAM and enterprise projects, see **Differences Between IAM and Enterprise Management**.

  NOTE

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

5.2 TaurusDB Actions

Table 5-1 Actions

Permission	API	Action	IAM Project	Enterprise Project
Querying Resource Quotas	GET /mysql/v3/{project_id}/quotas	gaussdb:instance:list	√	√
Configuring Resource Quotas	POST /mysql/v3/{project_id}/quotas	gaussdb:quota:modify	√	√
Modifying Resource Quotas	PUT /mysql/v3/{project_id}/quotas	gaussdb:quota:modify	√	√
Querying Version Information About a DB Engine	GET /mysql/v3/{project_id}/datastores/{database_name}	gaussdb:instance:list	√	√

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Permission	API	Action	IAM Project	Enterprise Project
Querying Database Specifications	GET /mysql/v3/{project_id}/flavors/{database}?version_name={version_name}&spec_code={spec_code}	gaussdb:instance:list	√	√
Creating a DB Instance	POST /mysql/v3/{projectId}/instances	gaussdb:instance:create	√	√
Querying DB Instances	GET /mysql/v3/{projectId}/instances	gaussdb:instance:list	√	√
Querying Details of a DB Instance	GET /mysql/v3/{project_id}/instances/{instance_id}	gaussdb:instance:list	√	√
Deleting a DB Instance	DELETE /mysql/v3/{project_id}/instances/{instance_id}	gaussdb:instance:delete	√	√
Querying Parameter Templates	GET /mysql/v3/{project_id}/configurations	gaussdb:param:list	√	√
Obtaining Task Information	GET /mysql/v3/{projectId}/jobs	gaussdb:instance:list	√	√
Creating a Read Replica	POST /mysql/v3/{project_id}/instances/{instance_id}/nodes/enlarge	gaussdb:instance:create	√	√

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Permission	API	Action	IAM Project	Enterprise Project
Deleting a Read Replica	DELETE /mysql/v3/{project_id}/instances/{instance_id}/nodes/{node_id}	gaussdb:instance:delete	√	√
Scaling up Storage Space of a Yearly/Monthly Instance	POST /mysql/v3/{project_id}/instances/{instance_id}/volume/extend	gaussdb:instance:modifySpec	√	√
Changing a DB Instance Name	PUT /mysql/v3/{project_id}/instances/{instance_id}/name	gaussdb:instance:modify	√	√
Resetting a Database Password	POST /mysql/v3/{project_id}/instances/{instance_id}/password	gaussdb:instance:modify	√	√
Changing DB Instance Specifications	POST /mysql/v3/{project_id}/instances/{instance_id}/action	gaussdb:instance:modifySpec	√	√
Creating a Manual Backup	POST /mysql/v3/{project_id}/backups/create	gaussdb:backup:create	√	√
Querying a Backup List	GET /mysql/v3/{project_id}/backups	gaussdb:backup:list	√	√

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Permission	API	Action	IAM Project	Enterprise Project
Querying an Automated Backup Policy	GET /mysql/v3/{project_id}/instances/{instance_id}/backups/policy	gaussdb:backup:list	√	√
Modifying an Automated Backup Policy	PUT /mysql/v3/{project_id}/instances/{instance_id}/backups/policy/update	gaussdb:instance:modifyBackupPolicy	√	√

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A Appendix

A.1 Abnormal Request Results

- Abnormal response description

  Table A-1 Abnormal response description

Name	Type	Description
error_code	String	Returned error code when a task submission exception occurs. For details, see **Error Codes**.
error_msg	String	Returned error description when a task submission exception occurs.

- Example response

```
{
    "error_code": "DBS.280234",
    "error_msg": "Invalid DB instance name."
}
```

A.2 Status Codes

The following table describes status codes.

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Table A-2 Status codes

Status Code	Message	Description
100	Continue	The client should continue with its request. This interim response is used to inform the client that the initial part of the request has been received and has not yet been rejected by the server.
101	Switching Protocols	The protocol should be switched. The protocol can only be switched to a more advanced protocol. For example, the current HTTP protocol is switched to a later version.
200	OK	Request succeeded.
201	Created	The request for creating a resource or task has been fulfilled.
202	Accepted	The request has been accepted, but the processing has not been completed.
203	Non-Authoritative Information	Unauthorized information. The request is successful.
204	NoContent	The server has successfully processed the request, but has not returned any content. The status code is returned in response to an HTTP OPTIONS request.
205	Reset Content	The server has fulfilled the request, but the requester is required to reset the content.
206	Partial Content	The server has processed certain GET requests.
300	Multiple Choices	There are multiple options for the location of the requested resource. The response contains a list of resource characteristics and addresses from which the user or user agent (such as a browser) can choose the most appropriate one.
301	Moved Permanently	The requested resource has been assigned a new permanent URI, and the new URI is contained in the response.
302	Found	The requested resource was temporarily moved.
303	See Other	The response to the request can be found under a different URI and should be retrieved using a GET or POST method.

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Status Code	Message	Description
304	Not Modified	The requested resource has not been modified. In such a case, there is no need to retransmit the resource since the client still has a previously-downloaded copy.
305	Use Proxy	The requested resource must be accessed through a proxy.
306	Unused	The HTTP status code is no longer used.
400	BadRequest	Invalid request. The client should not repeat the request without modifications.
401	Unauthorized	The status code is returned after the client provides the authentication information, indicating that the authentication information is incorrect or invalid.
402	Payment Required	This status code is reserved for future use.
403	Forbidden	The server understood the request, but is refusing to fulfill it. The client should not repeat the request without modifications.
404	NotFound	The requested resource cannot be found. The client should not repeat the request without modifications.
405	MethodNotAllowed	The method specified in the request is not supported for the requested resource. The client should not repeat the request without modifications.
406	Not Acceptable	The server cannot fulfill the request according to the content characteristics of the request.
407	Proxy Authentication Required	This status code is similar to 401, but indicates that the client must first authenticate itself with the proxy.
408	Request Time-out	The server timed out waiting for the request. The client may repeat the request without modifications at any later time.

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Status Code	Message	Description
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 exits, or the request fails to be processed because of the update of the conflict request.
410	Gone	The requested resource is no longer available. The requested resource has been deleted permanently.
411	Length Required	The server refuses to process the request without a defined Content-Length.
412	Precondition Failed	The server does not meet one of the preconditions that the requester puts on the request.
413	Request Entity Too Large	The request is larger than 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.
414	Request-URI Too Large	The URI provided was too long for the server to process.
415	Unsupported Media Type	The server is unable to process the media format in the request.
416	Requested Range Not Satisfiable	The requested range is invalid.
417	Expectation Failed	The server fails to meet the requirements of the Expect request-header field.
422	UnprocessableEntity	The request is well-formed but is unable to be processed due to semantic errors.
429	TooManyRequests	The client has sent more requests than its rate limit is allowed within a given amount of time, or the server has received more requests than it is able to process within a given amount of time. In this case, it is advisable for the client to re-initiate requests after the time specified in the Retry-After header of the response expires.
500	InternalServerError	The server is able to receive the request but it could not understand the request.

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Status Code	Message	Description
501	Not Implemented	The server does not support the requested function.
502	Bad Gateway	The server acting as a gateway or proxy receives an invalid response from a remote server.
503	ServiceUnavailable	The requested service is invalid. The client should not repeat the request without modifications.
504	ServerTimeout	The request cannot be fulfilled within a given time. The response will reach the client only if the request carries a timeout parameter.
505	HTTP Version not supported	The server does not support the HTTP protocol version used in the request.

A.3 Error Codes

The following table describes error codes.

Status Code	Error Code	Error Message	Description	Troubleshooting
500	DBS.05000000	server error.	Server error.	Contact customer service.
400	DBS.05000001	The kernel version is too early.	Proxy instances cannot be created due to an early kernel version.	Upgrade the kernel version.
400	DBS.05000006	The username and password must be different.	The username and password must be different.	Enter a strong password.
400	DBS.05000007	The password cannot be the username spelled backwards.	The password cannot be the username spelled backwards.	Enter a strong password.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000008	The current version is the latest. No update is available.	The current version is the latest. No updates are available.	Select a version later than the current version.
400	DBS.05000009	The truncate_lsn value exceeds the threshold. Change the value during off-peak hours or contact technical support.	The value of **truncate_lsn** exceeds the threshold. Change the value during off-peak hours or contact technical support.	The value of **truncate_lsn** exceeds the threshold. Change the value during off-peak hours or contact technical support.
400	DBS.05000010	The write priority of proxy nodes must be unique.	The write priority of proxy nodes must be unique.	Reset the write priority.
400	DBS.05000011	The value must be a positive integer and less than the number of primary nodes.	The value must be a positive integer and less than the number of primary nodes.	Reset the value.
400	DBS.05000012	Please contact Huawei cloud customer service to upgrade.	Contact Huawei Cloud customer service to perform the upgrade.	Contact customer service to perform the upgrade.
400	DBS.05000014	Dedicated edition cannot be changed to general-purpose edition.	Dedicated edition cannot be changed to general-purpose edition.	Do not change dedicated edition to general-purpose edition.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000015	General-purpose edition is not supported.	General-purpose edition is not supported.	Do not choose general-purpose edition.
400	DBS.05000018	Request parameter list is empty.	The request parameter list is empty.	Check the parameter list.
400	DBS.05000019	DBA Assistant is not supported.	DBA Assistant is not supported.	Contact customer service to enable DBA Assistant.
400	DBS.05000020	No more ip addresses are available, need ${ipNumNeed} ,left ${ipNumLeft}.	Insufficient IP addresses in the subnet. Required IP addresses: ${ipNumNeed}. Remaining IP addresses: ${ipNumLeft}.	Select another subnet to create an instance.
400	DBS.05000021	dnsName has already exist.	The private domain name already exists.	Change the private domain name.
400	DBS.05000022	InstanceId do not match proxy.	The proxy instance does not belong to the DB instance.	Change the proxy instance.
400	DBS.05000023	The operation not supported. Contact the administrator please.	This operation is not supported. Contact customer service.	Contact customer service.
400	DBS.05000024	This operation cannot be performed because there are large transactions in the database.	There are large transactions in the database.	Contact customer service.
400	DBS.05000025	Failed to lock the resource package.	Failed to lock the resource package.	Contact customer service.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000026	Resource package already exists.	The resource package already exists.	Contact customer service.
400	DBS.05000027	If read replicas can be automatically added or deleted during the auto scaling policy, you cannot create or delete proxy instances.	If read replicas can be automatically added or deleted during the auto scaling policy, you cannot create or delete proxy instances.	Do not create or delete proxy instances.
400	DBS.05000028	You do not have operation permissions ${agencyName}. Check account permissions on IAM.	You do not have operation permission ${agencyName}. Check account permissions on IAM.	Check account permissions on IAM.
400	DBS.05000029	Encrypted backup and cross-region backup cannot be both enabled.	Cross-region and encrypted backup cannot be both enabled.	Disable encrypted backup first.
400	DBS.05000030	Encrypted backup and cross-region backup cannot be both enabled.	Encrypted backup and cross-region backup cannot be both enabled.	Disable cross-region backup first.
400	DBS.05000031	The current KMS algorithm does not support encrypted backup.	The current KMS algorithm does not support encrypted backup.	Select the SM4 or AES algorithm.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000032	Proxy not support this port.	The proxy instance does not support this port. Enter a correct port by referring to the official document.	Enter a correct port by referring to the official document.
400	DBS.05000033	Proxy dns duplicate, please reset it.	The domain name of the proxy address already exists. Reset it.	Reset the domain name of the proxy address.
400	DBS.05000034	The kernel version of the new instance must be later than or equal to original instance, please reset it.	The kernel version of the new instance must be later than or equal to that of the original instance. Reset it.	Select a later kernel version.
400	DBS.05000036	Invalid records. Enter a valid value.	Invalid records. Enter a valid value.	Enter a valid value.
400	DBS.05000037	Invalid database charset. Enter a valid charset from [${charsets}].	Invalid database character set. Enter a value within value range [${charsets}].	Correct the character set.
400	DBS.05000038	The tag is not compliant. The tag must comply with the corresponding tag policy.	The tag is not compliant. The tag must comply with the tag policy.	Contact customer service.
400	DBS.05000042	Invalid databases. Enter a valid value.	Invalid database table. Reset it.	Check whether the database table name is correct.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000043	Invalid last_table_info. Enter a valid value.	Invalid final database table. Reset it.	Check whether the final database table is correct.
400	DBS.05000044	Param error: [${parameter}].	Parameter error: [${parameter}].	Enter a correct parameter based on the error description.
400	DBS.05000045	Some databases name are repeated.	There are duplicate databases in the request.	Check whether there are duplicate databases in the request.
400	DBS.05000046	Some tables name are repeated.	There are duplicate tables in the request.	Check whether there are duplicate tables in the request.
400	DBS.05000047	Some databases name are not exists.	The source database is not found.	Check whether the source database is correct.
400	DBS.05000048	Some tables name are not exists.	The source database table is not found.	Check whether the source database table is correct.
400	DBS.05000049	Binlog meta data is not exist.	The Binlog metadata is not found.	Contact customer service.
400	DBS.05000058	The non-extended-use specifications cannot be changed to extended-use specifications or the other way around.	The non-extended-use specifications cannot be changed to extended-use specifications or the other way around.	Select correct specifications.
400	DBS.05000062	Kernel parameter [${parameter}] must be [${paraValue}].	The kernel parameter [${parameter}] must be set to [${paraValue}].	Change the parameter value based on the error description.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000068	Not support open TDE function.	TDE cannot be enabled.	Contact customer service to enable the corresponding whitelist feature.
400	DBS.05000069	The current kernel version does not support the TDE function.	The current kernel version does not support TDE.	Select a kernel version that supports TDE.
400	DBS.05000070	Invalid TDE encryption type. Only SM4 or AES256 is supported.	Invalid TDE encryption type. Only SM4 or AES-256 is supported.	Select a supported TDE encryption type.
400	DBS.05000071	Failed to update the TDE information.	Failed to update TDE information.	Contact customer service.
400	DBS.05000072	The current user is in the blacklist. They have no permissions to create DB instances.	The current user is in the blacklist. They have no permissions to create DB instances.	Contact customer service.
400	DBS.05000073	The TDE instance cannot change to a kernel version that does not support TDE.	TDE is enabled for the instance, but the kernel version that instance will be changed to does not support TDE.	Select a kernel version that supports TDE.
400	DBS.05000074	You cannot specify AZs for read replicas.	You cannot specify AZs for read replicas.	Contact customer service to enable the corresponding whitelist feature.
400	DBS.05000076	Invalid proxy name.	Invalid proxy instance name.	Choose a valid proxy instance name.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000077	Node deletion failed. Delete residual data on the node first.	Node deletion failed. Delete residual data on the node first.	Delete residual data on the node first.
400	DBS.05000078	New node weight is null. Please input it.	The weight of the new node is left blank. Enter a weight.	When adding a node, enter its weight.
400	DBS.05000079	Failed to verify the database synchronization configuration. Please check: [${parameter}].	Failed to verify the database synchronization configuration. Check [${parameter}].	Check the error parameter based on the error description.
400	DBS.05000080	Failed to verify the table synchronization configuration. Please check: [${parameter}].	Failed to verify the table synchronization configuration. Check [${parameter}].	Check the error parameter based on the error description.
400	DBS.05000081	Too many nodes.	Too many nodes.	Select the number of nodes allowed.
400	DBS.05000084	Read replicas are being created.	Read replicas are being created.	Disable the auto scaling policy after the read replicas are created.
400	DBS.05000085	The availability zone mode is not supported: [${parameter}].	The AZ type [${parameter}] is not supported.	Check the error parameter based on the error description.
400	DBS.05000086	Invalid AZ: [${parameter}].	Invalid AZ: [${parameter}].	Check the error parameter based on the error description.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000087	Invalid dedicated resource id: [${parameter}].	Invalid dedicated resource ID: [${parameter}].	Check the error parameter based on the error description.
400	DBS.05000088	Invalid backup time: [${parameter}].	Invalid backup time: [${parameter}].	Check the error parameter based on the error description.
400	DBS.05000089	Invalid node quantity: [${parameter}].	Invalid number of nodes: [${parameter}].	Check the error parameter based on the error description.
400	DBS.05000090	Invalid security group: [${parameter}].	Invalid security group: [${parameter}].	Check the error parameter based on the error description.
400	DBS.05000091	Unsupported operation: [${parameter}].	Unsupported operation: [${parameter}].	Check the error parameter based on the error description.
400	DBS.05000092	General volume is not supported.	General-purpose storage is not supported.	Contact customer service to enable the corresponding whitelist feature.
400	DBS.05000093	Readonly proxy with balance route not support route to master.	When load balancing is enabled for a read-only proxy instance, requests cannot be routed to the primary node.	Contact customer service.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000094	The cv_lsn value exceeds the threshold.Change the value during off-peak hours or contact technical support.	The value of **cv_lsn** exceeds the threshold. Change the value during off-peak hours or contact technical support.	Contact customer service.
400	DBS.05000095	This operation cannot be performed because there are long transactions in the database.	There are long-running transactions in the database.	Contact customer service.
400	DBS.05000096	CPU usage is too high or tables number exceeds the upper limit not support re-diagnose.	If the CPU usage is too high or the number of tables exceeds the upper limit, re-diagnosis is not supported.	Contact customer service.
409	DBS.05000097	The same account name and host IP already exist.	The account name and host IP address already exist.	Select a different account name or host IP address.
400	DBS.05000098	The current kernel version does not support level-1 backups.	The current kernel version does not support level-1 backups.	Select a proper kernel version.
400	DBS.05000099	The flavor of arm standard don't support to resize.	Specifications of the standard edition cannot be changed.	Select a correct specification code.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000100	The failover priority cannot be set to 1 because the specifications of this node are different from those of the primary node.	The failover priority cannot be set to 1 because the specifications of this node are different from those of the primary node.	Set a different failover priority.
400	DBS.05000101	A manual switchover can be performed only for nodes with the failover priority set to 1.	A manual switchover can be performed only for nodes with the failover priority set to 1.	A manual switchover can be performed only for nodes with the failover priority set to 1.
400	DBS.05000102	A node with failover priority set to 1 is required.	A node with failover priority set to 1 is required.	When changing the failover priority, ensure that there is at least one node with the failover priority set to 1.
400	DBS.200001	Parameter error.	Parameter error.	Check whether the transferred parameters or URLs are correct.
400	DBS.200004	Parameter error.	Parameter error.	Check whether the transferred parameters or URLs are correct.
400	DBS.200006	The request is null. Enter a request parameter.	The request is null. Enter a request parameter.	Check whether any mandatory request parameter is empty.
400	DBS.200021	Invalid DB instance name.	Invalid DB instance name.	Check whether the instance name is correct.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.200023	Storage space is out of range.	The storage space is out of range.	Check whether the storage space exceeds the allowed range.
400	DBS.200024	Invalid region.	Invalid region.	Check whether the region name is correct and whether the region is available.
400	DBS.200025	Invalid AZ.	Invalid AZ.	Check whether the AZ name is correct and whether the AZ is available.
400	DBS.200026	Invalid storage type.	Invalid storage type.	Check whether the storage type is correct.
400	DBS.200027	Storage space must be a multiple of 10.	Storage space must be a multiple of 10.	Check whether the storage space is a multiple of 10.
400	DBS.200040	The DB engine or version is not supported.	The DB engine or version is not supported.	Check whether the DB engine and version match and meet the requirements.
400	DBS.200041	Invalid database version.	Invalid database version.	Check whether the database version is supported.
400	DBS.200042	The DB engine does not exist.	The engine version is not found.	Check whether the DB engine is supported by TaurusDB.
400	DBS.200043	Invalid synchronize model.	Invalid HA synchronization mode.	Check whether the HA synchronization model meets the requirements.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.200048	Invalid VPC ID.	Invalid VPC ID.	Check whether the VPC ID and name are correct and meet the requirements.
400	DBS.200049	Invalid subnet ID.	Invalid subnet ID.	Check whether the subnet ID and name are correct and meet the requirements.
400	DBS.200051	Invalid HA mode.	Invalid HA mode.	Check whether the HA mode meets the requirements.
400	DBS.200052	Invalid database root password.	Invalid database root password.	Check whether the username and password match and whether the password meets the requirements.
400	DBS.200053	The selected specifications do not exist.	The selected specifications are not found.	Check whether the specifications are correct and available in the current AZ.
400	DBS.200054	Invalid specifications.	Invalid specifications.	Check whether the specifications are correct and available in the current AZ.
400	DBS.200056	The maximum number of nodes has been reached.	There are too many nodes.	Check whether the number of instance nodes reaches the upper limit.
400	DBS.200063	Invalid cluster mode.	Invalid cluster mode.	Check whether the cluster mode is valid.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.200086	This operation is not allowed by the DB instance status.	This operation is not allowed by the DB instance status.	Check whether the instance status or the ongoing operation on the instance conflicts with the request.
400	DBS.200087	The number of tags added for the DB instance has reached the quota.	The number of tags added for the DB instance has reached the quota.	Check whether the number of tags for the DB instance exceeds the upper limit.
400	DBS.200098	The tag already exists.	The tag already exists.	Check whether the tag exists.
400	DBS.200302	Storage space must be a multiple of 10.	Storage space must be a multiple of 10.	Check whether the storage space is a multiple of 10.
400	DBS.200306	The new storage space must be greater than or equal to the original storage space.	The new storage space must be at least the original storage space.	Check whether the storage space exceeds the upper limit.
400	DBS.200461	The parameter value is out of range.	The parameter value is out of range.	Check whether the port is valid.
400	DBS.200504	Invalid database version.	Invalid database version.	Check whether the database version is valid.
400	DBS.200543	The job does not exist.	The task is not found.	Check whether the task ID is valid.
400	DBS.200823	The database does not exist.	The database is not found.	Check whether the database can be found.
400	DBS.200824	The database account does not exist.	The database account is not found.	Check whether the database account exists.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.201014	This operation is not allowed by the DB instance status.	This operation is not allowed by the DB instance status.	Check whether the instance status or the ongoing operation on the instance conflicts with the request.
400	DBS.201101	Invalid backup cycle.	Invalid backup cycle.	Check whether the backup cycle meets the requirements.
400	DBS.201103	Invalid backup start time.	Invalid backup start time.	Check whether the start time meets the requirement.
400	DBS.201106	Invalid retention days.	The retention period of backups is invalid.	Check whether the backup retention period meets the requirements.
400	DBS.201203	The backup file does not exist.	The backup is not found.	Check whether the backup exists and matches the instance.
400	DBS.201207	The DB engine or version is not supported.	The DB engine or version is not supported.	Check whether the DB engine is supported by TaurusDB.
400	DBS.201208	The operation is not allowed by the backup status.	The operation is not allowed by the backup status.	Check whether the status of the backup is **Completed**.
400	DBS.212002	Incorrect parameter group quota.	Incorrect parameter template quota.	Delete unnecessary parameter templates and create a new one.
400	DBS.212003	Operation not allowed.	The operation is not allowed.	Default parameter templates cannot be reset or deleted.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.212004	Parameter group update error.	The parameter template fails to be updated.	Check whether the new parameter values are valid.
400	DBS.212005	The node does not belong to the group.	The node does not belong to the group.	Check whether the instance ID or node ID is correct.
400	DBS.212007	The DB engine does not exist.	The DB engine is not found.	Check whether the DB engine exists.
400	DBS.212008	The DB engine is not supported.	The DB engine is not supported.	Check whether the DB engine is supported by TaurusDB.
400	DBS.212009	Task processing failed.	The task fails to be processed.	Contact customer service.
400	DBS.212010	The parameter group is being applied.	The parameter template is being applied.	Perform the operation after the application is complete.
400	DBS.212011	Application failed.	Failed to apply the parameter template.	Contact customer service.
400	DBS.212012	The parameter does not exist.	The parameter is not found.	Check whether the new parameter is valid.
400	DBS.212014	The node does not have a default parameter group.	The node does not have a default parameter template.	Check whether the node ID or parameter template ID is correct.
400	DBS.212015	Partial success.	Partial success.	Check whether the parameters to be modified are correct.
400	DBS.212016	Parameter update failed.	Parameter update failed.	Contact customer service.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.212017	Invalid parameter.	Parameter error.	Check whether the parameter name is valid.
400	DBS.212025	Update failed.	Update failed.	Contact customer service.
400	DBS.212030	Parameter error.	Parameter error.	The parameter template name already exists.
400	DBS.212032	The parameter template has been applied.	The parameter template has been applied.	The parameter template has been applied and cannot be deleted.
400	DBS.212037	Parameters are incorrectly set.	Parameters are incorrectly configured.	Check whether the parameter values are valid or within the valid range.
400	DBS.270024	Proxy instance does not exist.	The proxy instance is not found.	Check whether the tenant has the proxy instance, whether the input proxy instance ID is correct, and whether the proxy instance exists.
400	DBS.270025	Invalid weight.	Invalid weight.	Check whether the weight format and range are correct.
400	DBS.270026	Invalid proxy mode.	The proxy type is invalid.	Check whether the database proxy type is correct.
400	DBS.270027	Select a proxy instance.	No proxy instances are specified.	Check whether the proxy instance ID is null.
400	DBS.280001	Parameter error.	Parameter error.	Check whether the transferred parameters or URLs are correct and meet the requirements.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.280127	Invalid backup description.	Invalid backup description.	Check whether the backup description is correct and meets the requirements.
400	DBS.280128	The database name does not exist.	The database name is not found.	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.280203	This is a weak password. Please enter a strong password.	This is a weak password. Enter a strong password.	The password is too weak. Change it to a strong one.
400	DBS.280204	Invalid parameter.	Invalid parameter.	Check whether the parameter value is valid or within the valid range.
400	DBS.280214	The backup does not exist.	The backup is not found.	Check whether the backup retention period is correct.
400	DBS.280216	Invalid backup start time.	Invalid backup start time.	Check whether the backup start time meets the requirements and whether the requirements between the backup start time and end time are correct.
400	DBS.280235	Invalid database type.	Invalid database type.	Check whether the DB engine is correct.
400	DBS.280237	Datastore not specified.	Datastore is not specified.	Check whether the DB engine is supported by TaurusDB.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.280238	The DB engine or version is not supported.	The DB engine or version is not supported.	Check whether the DB engine and version match and meet the requirements.
400	DBS.280239	Invalid specifications.	Invalid specifications.	Check whether the specification code is correct, whether the specifications exist in the current AZ, and whether the specifications are supported.
400	DBS.280241	Invalid storage type.	Invalid storage type.	Check whether the storage type is correct and meets the requirements.
400	DBS.280242	Storage space is out of range.	The storage space is out of range.	Check whether the specified storage space is correct.
400	DBS.280246	Invalid database root password.	Invalid database root password.	Check whether the username and password match and whether the password meets the requirements.
400	DBS.280250	Invalid backup retention days.	Invalid backup retention days.	Check whether the backup data retention period is valid or within the valid range.
400	DBS.280251	Invalid backup cycle.	Invalid backup cycle.	Check whether the backup cycle is valid or within the valid range.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.280253	Invalid backup start time.	Invalid backup start time.	Check whether the backup start time meets the requirements and whether the requirements between the backup start time and end time are correct.
400	DBS.280260	Invalid AZ mode.	Invalid AZ mode.	Check whether the AZ mode is valid.
400	DBS.280270	The parameter does not exist.	The parameter is not found.	Check whether the new parameter is valid.
400	DBS.280271	The parameter value is out of range.	The parameter value is out of range.	Check whether the parameter value is within the valid range.
400	DBS.280272	The tag key must be unique.	The tag key must be unique.	Check whether the new tag exists.
400	DBS.280277	Invalid backup name.	Invalid backup name.	Check whether the backup name is correct and meets the requirements.
400	DBS.280285	Invalid AZ.	Invalid AZ.	Check whether the AZ name is correct and whether the AZ is available.
400	DBS.280288	Invalid FlavorRef.	Invalid specifications.	Check whether the specification ID is null or a null string.
400	DBS.280311	Invalid storage space size.	Invalid storage space.	Check whether the specified storage space is correct and meets the requirements.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.280325	Invalid storage information.	Invalid storage information.	Check whether the storage space or type is valid.
400	DBS.280342	Invalid cluster mode.	Invalid instance mode.	Check whether the instance mode is correct and whether the instance mode matches the instance ID.
400	DBS.280364	Invalid database port.	Invalid database port.	Check whether the database port is available.
400	DBS.280402	Invalid HA mode.	Invalid HA mode.	Check whether the HA mode meets the requirements.
400	DBS.280404	Invalid DB instance ID or node ID format.	Invalid DB instance ID.	Check whether the instance ID is valid.
400	DBS.280434	Invalid specification code.	Invalid specification code.	Check whether the specification code complies with the rules, whether the specifications exist, and whether the specifications are available.
400	DBS.280439	Invalid records. Enter a positive integer less than 100.	Invalid value. Enter a positive integer of no more than 100.	Check whether the number of queried records is within the valid range.
400	DBS.280448	The storage type is sold out.	The storage type is sold out.	Check whether the current storage type is available.

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Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.280449	Operation not allowed on frozen objects.	The operation is not allowed on frozen objects.	Check whether the instance is frozen and whether the current operation can be performed when the instance is frozen.
400	DBS.280450	The DB instance specifications are sold out.	The DB instance specifications are sold out.	Select another AZ or contact customer service.
400	DBS.280500	ELB must be enabled.	ELB must be enabled.	Enable ELB.
400	DBS.280505	CBC error: There are unprocessed orders.	CBC error: There are unprocessed orders.	Check whether the current order has been processed.
400	DBS.290000	Parameter error.	Parameter error.	Check whether the transferred parameters or URLs are correct and meet the requirements.
400	DBS.290001	Invalid parameter letter case.	Invalid parameter letter case.	Check whether the parameter letter case is correct and meets the requirements.
403	DBS.200010	The DB instance ID or user ID may be null, or the operation is not authorized.	The DB instance ID or user ID may be null, or the operation is not authorized.	Check whether the input parameters are correct, whether the instance exists, and whether the tenant performs unauthorized operations.

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Status Code	Error Code	Error Message	Description	Troubleshooting
403	DBS.200044	Resource not found or permission denied.	Resources are not found or permissions are denied.	Check whether the input parameters are correct, whether the resource exists, and whether the tenant has the access permission.
403	DBS.200604	The DB instance ID or user ID may be null, or the operation is not authorized.	The DB instance ID or user ID may be null, or the operation is not authorized.	Check whether the input parameters are correct, whether the instance exists, and whether the tenant performs unauthorized operations.
403	DBS.200810	You are not allowed to create databases on read replicas.	You are not allowed to create databases on read replicas.	Create databases on the primary node.
403	DBS.200819	You are not allowed to delete database users on read replicas.	You are not allowed to delete database users on read replicas.	Database users cannot be deleted from read replicas.
403	DBS.201003	Resource not found or permission denied.	Resources are not found or permissions are denied.	Check whether the parameters are correctly configured, whether the access resources exist, and whether the tenant has the access permission.

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Status Code	Error Code	Error Message	Description	Troubleshooting
403	DBS.280015	Resource not found or permission denied.	Resources are not found or permissions are denied.	Check whether the parameters are correctly configured, whether the access resources exist, and whether the tenant has the access permission.
403	DBS.280056	Invalid token.	Invalid token.	Check whether the instance belongs to the tenant and whether the token has been obtained again.
404	DBS.200002	The DB instance does not exist.	The DB instance is not found.	Check whether the instance and its ID are correct and whether the instance exists.
404	DBS.200008	The ECS information of the DB instance cannot be found.	The ECS information of the DB instance cannot be found.	Check whether the parameters are correctly configured and whether the instance status is normal.
404	DBS.200013	The original DB instance does not exist.	The original DB instance is not found.	Check whether the instance and its ID are correct and whether the instance exists.
404	DBS.200045	The DB instance does not exist.	The DB instance is not found.	Check whether the instance and its ID are correct and whether the instance exists.

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Status Code	Error Code	Error Message	Description	Troubleshooting
404	DBS.200050	The security group does not exist or does not belong to the VPC.	The security group is not found or does not belong to the VPC.	Check whether the security group ID is valid, whether the security group exists, and whether the private IP address for read of the node belongs to the security group.
404	DBS.200408	The DB instance does not exist.	The instance is not found or has been deleted.	Check whether the instance and its ID are correct and whether the instance exists.
404	DBS.200470	The region or AZ does not exist.	The region or AZ is not found.	Check whether the region or AZ is correct.
404	DBS.200501	The subnet does not exist or does not belong to the VPC.	The subnet is not found or does not belong to the VPC.	Check whether the subnet ID and name exist and whether the subnet belongs to the VPC.
404	DBS.200503	The VPC does not exist or does not belong to the user.	The VPC is not found or does not belong to the user.	Check whether the tenant has the VPC.
404	DBS.200602	The DB instance does not exist.	The DB instance is not found.	Check whether the instance and its ID are correct and whether the instance exists.
404	DBS.201010	The backup information does not exist.	The backup information is not found.	Check whether the backup exists and matches the instance.
404	DBS.201028	The DB instance does not exist.	The instance is not found or has been deleted.	Check whether the instance and its ID are correct and whether the instance exists.

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Status Code	Error Code	Error Message	Description	Troubleshooting
404	DBS.212001	The parameter group does not exist.	The parameter template is not found.	Check whether the parameter template exists.
404	DBS.290002	The selected specifications do not exist.	The selected specifications are not found.	Check whether the specifications are correct and available in the current AZ.
404	DBS.290005	The DB instance does not exist.	The DB instance is not found.	Check whether the instance and its ID are correct and whether the instance exists.
404	DBS.290011	The DB instance does not exist.	The DB instance is not found.	Check whether the instance and its ID are correct and whether the instance exists.
404	DBS.290013	Resource not found.	Resources are not found.	Check whether the parameters are correct and whether the DB instance exists.
409	DBS.200011	Another operation is being performed on the DB instance or the DB instance is faulty.	Another operation is being performed on the DB instance or the DB instance is faulty.	Check the instance status or whether the ongoing operation on the instance conflicts with the request.
409	DBS.200019	Another operation is being performed on the DB instance or the DB instance is faulty.	Another operation is being performed on the DB instance or the DB instance is faulty.	Check the instance status or whether the ongoing operation on the instance conflicts with the request.

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Status Code	Error Code	Error Message	Description	Troubleshooting
409	DBS.200022	The DB instance name already exists.	The DB instance name already exists.	Check whether the instance name exists.
409	DBS.200047	Another operation is being performed on the DB instance or the DB instance is faulty.	Another operation is being performed on the DB instance or the DB instance is faulty.	Check the instance status or whether the ongoing operation on the instance conflicts with the request.
409	DBS.200316	This operation cannot be performed because the DB instance status is Storage full.	This operation cannot be performed because the DB instance status is **Storage full**.	Adjust the storage space.
409	DBS.200826	The database name already exists.	The database name already exists.	Check whether the database name is valid.
409	DBS.200827	The database user already exists.	The database user already exists.	Check whether the database user is valid.
409	DBS.200828	You are not allowed to create a database built-in account.	You are not allowed to create a database built-in account.	Check whether the database user is valid.
409	DBS.201202	Another operation is being performed on the DB instance or the DB instance is faulty.	Another operation is being performed on the DB instance or the DB instance is faulty.	Check the instance status or whether the ongoing operation on the instance conflicts with the request.
409	DBS.201205	Backup is in progress, please wait.	Backup is in progress.	Try again after the backup is complete.

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Status Code	Error Code	Error Message	Description	Troubleshooting
409	DBS.212006	Another operation is being performed on the DB instance or the DB instance is faulty.	Another operation is being performed on the DB instance or the DB instance is faulty.	Check the instance status or whether the ongoing operation on the instance conflicts with the request.
409	DBS.280406	Operation not allowed by the DB instance type or status.	The operation is not allowed by the DB instance type or status.	Check whether the instance type and instance status meet requirements.
413	DBS.200046	The number of DB instances has reached the quota.	The number of DB instances has reached the quota.	Contact the database administrator to adjust the quota.
413	DBS.290003	The number of DB instances has reached the quota.	The number of DB instances has reached the quota.	Contact the database administrator to adjust the quota.
422	DBS.212019	The parameter cannot be processed.	The parameter or object in the request cannot be identified.	Check whether the parameter is valid.
500	DBS.108000	Server failure.	Server failure.	Contact customer service.
500	DBS.108002	Server failure.	Server failure.	Contact customer service.
500	DBS.108005	Server failure.	Server failure.	Contact customer service.
500	DBS.200005	Server failure.	Server failure.	Contact customer service.
500	DBS.200208	Server failure.	Server failure.	Contact customer service.

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Status Code	Error Code	Error Message	Description	Troubleshooting
500	DBS.200811	Failed to create the database.	Failed to create the database.	Check whether resources are insufficient and then contact customer service.
500	DBS.200821	Failed to modify database user permissions.	Failed to modify database user permissions.	This operation is not allowed in the current instance status. Try again later.
500	DBS.213002	Failed to process the request.	Failed to process the request.	Internal service error. Contact customer service.
500	DBS.213004	Failed to process the request.	Failed to process the request.	Internal service error. Contact customer service.
500	DBS.290006	Failed to process the request.	Failed to process the request.	Internal service error. Contact customer service.
500	DBS.290015	Failed to process the request.	Failed to process the request.	Contact customer service.

A.4 Obtaining a Project ID

Scenarios

When calling APIs, you need to specify the project ID in some URLs. To do so, you need to obtain the project ID first. Two methods are available:

- **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 API used to **query project information based on the specified criteria**.

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

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

```
{
    "projects": [
```

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```
    {
        "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

Step 1 Register yourself on the management console and log in to it.

Step 2 Move your pointer over the username and select My Credentials in the displayed drop-down list.

On the **My Credentials** page, view project IDs in the project list.

----End

A.5 TaurusDB Metrics

Function Description

This section describes namespaces, descriptions, and dimensions of metrics to be reported to Cloud Eye. You can use APIs provided by Cloud Eye to retrieve metrics and alarm information generated for TaurusDB.

Namespace

SYS.GAUSSDB

Metrics

Table A-3 Metrics

Metric	Name	Description	Value Range	Remarks
gaussdb_mysql001_cpu_util	CPU Usage	CPU usage of the monitored object	0–100%	Monitored object: ECS Monitored instance type: TaurusDB instance

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Metric	Name	Description	Value Range	Remarks
gaussdb_mysql002_mem_util	Memory Usage	Memory usage of the monitored object	0–100%	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql004_bytes_in	Network Input Throughput	Incoming traffic in bytes per second	≥0 Bytes/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql005_bytes_out	Network Output Throughput	Outgoing traffic in bytes per second	≥0 Bytes/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql006_conn_count	Total Connections	Total number of connections that connect to the MySQL server	≥0 Connections	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql007_conn_active_count	Current Active Connections	Number of active connections	≥0 Connections	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql008_qps	QPS	Query times of SQL statements (including DDL, DML, SHOW, SET statements and storage procedures) per second	≥0 Times/s	Monitored object: ECS Monitored instance type: TaurusDB instance

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Metric	Name	Description	Value Range	Remarks
gaussdb_mysql009_tps	TPS	Execution times of submitted and rollback transactions per second	≥0 Times/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql010_innodb_buf_usage	Buffer Pool Usage	Ratio of used pages to total pages in the InnoDB buffer	0–100%	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql011_innodb_buf_hit	Buffer Pool Hit Ratio	Ratio of read hits to read requests in the InnoDB buffer	0–100%	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql012_innodb_buf_dirty	Buffer Pool Dirty Block Ratio	Ratio of dirty data to all data in the InnoDB buffer	0–100%	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql013_innodb_reads	InnoDB Read Throughput	Number of read bytes per second in the InnoDB buffer	≥0 Bytes/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql014_innodb_writes	InnoDB Write Throughput	Number of write bytes per second in the InnoDB buffer	≥0 Bytes/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql017_innodb_log_write_req_count	InnoDB Log Write Requests per Second	Number of InnoDB log write requests per second	≥0 Requests/s	Monitored object: ECS Monitored instance type: TaurusDB instance

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Metric	Name	Description	Value Range	Remarks
gaussdb_mysql020_temp_tbl_count	Temporary Tables	Number of temporary tables automatically created on hard disks when MySQL statements are executed	≥0 Tables	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql028_comdml_del_count	DELETE Statements per Second	Number of DELETE statements executed per second	≥0 Statements/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql029_comdml_ins_count	INSERT Statements per Second	Number of INSERT statements executed per second	≥0 Statements/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql030_comdml_ins_sel_count	INSERT_SELECT Statements per Second	Number of INSERT_SELECT statements executed per second	≥0 Statements/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql031_comdml_rep_count	REPLACE Statements per Second	Number of REPLACE statements executed per second	≥0 Statements/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql032_comdml_rep_sel_count	REPLACE_SELECTION Statements per Second	Number of REPLACE_SELECTION statements executed per second	≥0 Statements/s	Monitored object: ECS Monitored instance type: TaurusDB instance

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Metric	Name	Description	Value Range	Remarks
gaussdb_mysql033_comdml_sel_count	SELECT Statements per Second	Number of SELECT statements executed per second	≥0 Statements/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql034_comdml_upd_count	UPDATE Statements per Second	Number of UPDATE statements executed per second	≥0 Statements/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql035_innodb_del_row_count	Row Delete Frequency	Number of rows deleted from the InnoDB table per second	≥0 Rows/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql036_innodb_ins_row_count	Row Insert Frequency	Number of rows inserted into the InnoDB table per second	≥0 Rows/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql037_innodb_read_row_count	Row Read Frequency	Number of rows read from the InnoDB table per second	≥0 Rows/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql038_innodb_upd_row_count	Row Update Frequency	Number of rows updated into the InnoDB table per second	≥0 Rows/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql048_disk_used_size	Used Storage Space	Used storage space of the monitored object	0 GB-128 TB	Monitored object: ECS Monitored instance type: TaurusDB instance

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Metric	Name	Description	Value Range	Remarks
gaussdb_mysql072_conn_usage	Connection Usage	Percent of used MySQL connections to the total number of connections	0-100%	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql074_slow_queries	Slow Query Logs	Number of MySQL slow query logs generated per minute	≥0 Queries/min	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql077_replication_delay	Replication Delay	Data replication latency between the primary node and read replicas	≥ 0s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql104_dfv_write_delay	Storage Write Latency	Average latency of writing data to the storage layer in a specified period	≥0 ms	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql105_dfv_read_delay	Storage Read Latency	Average latency of reading data from the storage layer in a specified period	≥0 ms	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql106_innodb_row_lock_current_waits	InnoDB Row Locks	Number of row locks being waited by operations on the InnoDB table	≥0 Locks	Monitored object: ECS Monitored instance type: TaurusDB instance

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Metric	Name	Description	Value Range	Remarks
gaussdb_mysql107_comdml_ins_and_ins_sel_count	INSERT and INSERT_SELECT Statements per Second	Number of INSERT and INSERT_SELECT statements executed per second	≥0 Statements/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql108_com_commit_count	COMMIT Statements per Second	Number of COMMIT statements executed per second	≥0 Statements/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql109_com_rollback_count	ROLLBACK Statements per Second	Number of ROLLBACK statements executed per second	≥0 Statements/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql110_innodb_bufpool_reads	InnoDB Storage Layer Read Requests per Second	Number of times that InnoDB reads data from the storage layer per second	≥0 Times/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql111_innodb_bufpool_read_requests	InnoDB Read Requests per Second	Number of InnoDB read requests per second	≥0 Requests/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql114_innodb_bufpool_read_ahead	InnoDB Bufpool Read Ahead	Number of pages read into the InnoDB buffer pool by the read-ahead background thread	≥0 Pages	Monitored object: database Monitored instance type: TaurusDB instance

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Metric	Name	Description	Value Range	Remarks
gaussdb_mysql115_innodb_bufpool_read_ahead_evicted	InnoDB Bufpool Read Ahead Evicted	Number of pages read into the InnoDB buffer pool by the read-ahead background thread that were subsequently evicted without having been accessed by queries	≥0 Pages	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql116_innodb_bufpool_read_ahead_rnd	InnoDB Bufpool Read Ahead Rnd	Number of random read-aheads initiated by InnoDB	≥0 Read-aheads	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql117_innodb_pages_read	InnoDB Pages Read	Number of pages read from the InnoDB buffer pool by operations on InnoDB tables	≥0 Pages	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql118_innodb_pages_written	InnoDB Pages Written	Number of pages written by operations on InnoDB tables	≥0 Pages	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql019_innodb_log_writes	InnoDB Log Writes	Number of physical writes to the InnoDB redo log file	≥0 Writes	Monitored object: database Monitored instance type: TaurusDB instance

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Metric	Name	Description	Value Range	Remarks
gaussdb_mysql342_iostat_iops_write	I/O Write IOPS	Number of disk writes per second	≥0 Operations/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql344_iostat_iops_read	I/O Read IOPS	Number of disk reads per second	≥0 Operations/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql346_iostat_throughput_write	I/O Write Bandwidth	Disk write bandwidth per second	≥0 Bytes/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql348_iostat_throughput_read	I/O Read Bandwidth	Disk read bandwidth per second	≥0 Bytes/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql119_disk_used_ratio	Disk Usage	Disk usage of the monitored object	0-100%	Monitored object: database Monitored instance type: TaurusDB instance 1 minute
gaussdb_mysql371_taurus_binlog_total_file_counts	Binlog Files	Number of TaurusDB binlog files	≥0	Monitored object: database Monitored instance type: TaurusDB instance 5 minutes

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Metric	Name	Description	Value Range	Remarks
gaussdb_mysql378_create_temp_tbl_per_min	Temporary Tables Created per Minute	Number of temporary tables automatically created on disks per minute when TaurusDB statements are executed	≥0 Tables/min	Monitored object: database Monitored instance type: TaurusDB instance 1 minute

Dimension

Key	Value
gaussdb_mysql_instance_id	TaurusDB instance ID.
gaussdb_mysql_node_id	Node ID of the TaurusDB instance.

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B Change History

Released On	Description
2025-05-30	Modified the following content: • Added **Querying User Session Threads on a Node**. • Added **Terminating User Session Threads on a Node**.
2024-02-29	Modified the following content: • Added parameter **availability_zone** to the API for creating a read replica. • Modified the description of the parameter **name** in the APIs for creating a DB instance and changing a DB instance name.
2023-05-30	Modified the following content: • Added the **restore_point** parameter in **Creating a DB Instance**. • Added **Restoring Data to the Original Instance or an Existing Instance**. • Added **Querying the Restoration Time Range**.
2023-03-15	This is the first official release.

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