Database Security Service

# API Reference

**Issue** 01

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# 1 Before You Start

## 1.1 Overview

Database Security Service (DBSS) can be used to audit your databases, detect SQL injection attacks, and identify high-risk operations based on the big data analytics technologies.

This document describes how to use application programming interfaces (APIs) to create, query, and delete instance and rules. For details about all supported operations, see **API**.

Before calling DBSS APIs, ensure that you have understood the concepts related to DBSS. For more information, see **Service Overview**.

## 1.2 API Calling

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

## 1.3 Endpoints

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

## 1.4 Concepts

- Account

  An account is created upon successful registration. The account has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. The account is a payment entity and should not be used to perform routine management. For security purposes, create IAM users and grant them permissions for routine management.

- User

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

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

- Region

  Regions are divided based on geographical location and network latency. Public services, such as Elastic Cloud Server (ECS), Elastic Volume Service (EVS), Object Storage Service (OBS), Virtual Private Cloud (VPC), Elastic IP (EIP), and Image Management Service (IMS), are shared within the same region. Regions are classified as universal regions and dedicated regions. A universal region provides universal cloud services for common tenants. A dedicated region provides services of the same type only or for specific tenants.

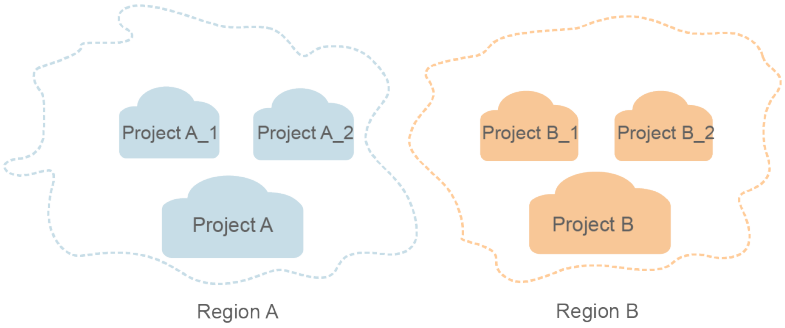
- Availability Zone (AZ)

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

- Project

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

  **Figure 1-1** Project isolation model



# 2 Calling APIs

## 2.1 Making an API Request

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

### Request URI

A request URI is in the following format:

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

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

- **URI-scheme**:

  Protocol used to transmit requests. All APIs use HTTPS.
- **Endpoint**:

  Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from **Regions and Endpoints**.

  For example, the endpoint of IAM in region **CN-Hong Kong** is **iam.ap-southeast-1.myhuaweicloud.com**.
- **resource-path**:

  Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the **resource-path** of the API used to obtain a user token is **/v3/auth/tokens**.
- **query-string**:

  Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of "Parameter name=Parameter value". For example, **?limit=10** indicates that a maximum of 10 data records will be displayed.

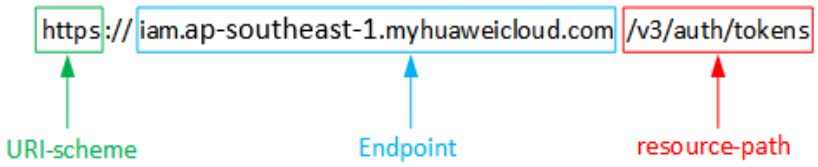
For example, to obtain an IAM token in the **CN-Hong Kong** region, obtain the endpoint of IAM (iam.ap-southeast-1.myhuaweicloud.com)) for this region and

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

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

**Figure 2-1** Example URI




NOTE

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

## Request Methods

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

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

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

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

## Request Header

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

Common request header fields are as follows:

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

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

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

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

## Request Body

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

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

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

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

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
{
    "auth": {
        "identity": {
            "methods": [
                "password"
            ],
            "password": {
                "user": {
                    "name": "username",
                    "password": "*********",
                    "domain": {
                        "name": "domainname"
                    }
                }
            }
        },
        "scope": {
            "project": {
                "name": "xxxxxxxxxxxxxxxxx"
            }
        }
```

```
    }
}
```

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

# 2.2 Authentication

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

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

## Token-based Authentication

NOTE

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

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

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

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

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

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

### AK/SK-based Authentication

NOTE

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

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

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

In AK/SK-based authentication, you can use an AK/SK to sign requests based on the signature algorithm or use the signing SDK to sign requests. For details about how to sign requests and use the signing SDK, see **API Signature Guide**.

NOTICE

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

## 2.3 Response

### Status Code

After sending a request, you will receive a response, including a 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 request. 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

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

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

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


## (Optional) Response Body

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

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

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

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

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

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

# 3 API

## 3.1 Management APIs

### 3.1.1 Enabling or Disabling a Risk Rule

#### Function

This API is used to enable or disable a risk rule.

#### URI

POST /v1/{project_id}/{instance_id}/audit/rule/risk/switch

**Table 3-1** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| instance_id | Yes | String | Instance ID |
| project_id | Yes | String | Project ID |

#### Request Parameters

**Table 3-2** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| Content-type | Yes | String | The fixed value of this parameter is **application/json;charset=UTF-8**, which cannot be changed. |

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| X-Auth-Token | Yes | String | User token.The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. |

**Table 3-3** Request body parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| ids | Yes | String | Risk IDs. Values are separated by commas (,).Risk id can be obtained from this interface:/v1/{project_id}/{instance_id}/dbss/audit/rule/risk |
| status | Yes | String | Its value can be OFF or ON.<br>Enumeration values:<br>• **OFF**<br>• **ON** |

## Response Parameters

**Status code: 200**

**Table 3-4** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| status | String | response status |

**Status code: 400**

**Table 3-5** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-6** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-7** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-8** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v1/{project_id}/{instance_id}/audit/rule/risk/switch

{
  "ids" : "c7ILB3kBCwCqSg3B2OpF",
  "status" : "OFF"
}
```

## Example Responses

**Status code: 200**

Request succeeded.

```
{
  "status" : "SUCCESS"
}
```

**Status code: 400**

Invalid request parameter.

```
{
  "error" : {
    "error_code" : "DBSS.XXX",
    "error_msg" : "XXX"
  }
}
```

**Status code: 403**

Authentication failed.

```
{
  "error" : {
    "error_code" : "DBSS.XXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Request succeeded. |
| 400 | Invalid request parameter. |
| 403 | Authentication failed. |

## Error Codes

See **Error Codes**.

# 3.1.2 Enabling or Disabling an Agent

## Function

This API is used to enable or disable the agent. An enabled agent collects user access information.

## URI

POST /v1/{project_id}/{instance_id}/audit/agent/switch

**Table 3-9** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| instance_id | Yes | String | Instance ID |
| project_id | Yes | String | Project ID |

## Request Parameters

**Table 3-10** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| Content-type | Yes | String | The fixed value of this parameter is **application/json;charset=UTF-8**, which cannot be changed. |
| X-Auth-Token | Yes | String | User token.The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. |

**Table 3-11** Request body parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| agent_id | Yes | String | Audit agent ID |
| status | Yes | Integer | Agent status. 1: enabled; 0: disabled |

## Response Parameters

**Status code: 200**

**Table 3-12** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| result | String | Response status. |

**Status code: 400**

**Table 3-13** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-14** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-15** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-16** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v1/{project_id}/{instance_id}/audit/agent/switch

{
  "agent_id" : "ASWDSDSDSWEWDSDSD",
  "status" : 1
}
```

## Example Responses

**Status code: 200**

Request succeeded.

```
{
  "result" : "SUCCESS"
}
```

**Status code: 400**

Invalid request parameter.

```
{
  "error" : {
    "error_code" : "DBSS.XXX",
    "error_msg" : "XXX"
  }
}
```

**Status code: 403**

Authentication failed.

```
{
  "error" : {
    "error_code" : "DBSS.XXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Request succeeded. |
| 400 | Invalid request parameter. |
| 403 | Authentication failed. |

## Error Codes

See **Error Codes**.

# 3.1.3 Querying Quota Information About an Account

## Function

This API is used to query quota information about an account.

## URI

GET /v1/{project_id}/dbss/audit/quota

**Table 3-17** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | No | String | Project ID |

## Request Parameters

**Table 3-18** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| X-Auth-Token | Yes | String | User token |

## Response Parameters

**Status code: 200**

**Table 3-19** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| audit_quota | Long | Remaining instance quota. |
| cpu | Long | Remaining CPU quota. |
| project_id | String | Project ID. |
| ram | Long | Remaining memory quota. |

**Status code: 400**

**Table 3-20** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-21** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-22** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-23** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-24** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-25** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v1/{project_id}/dbss/audit/quota
```

## Example Responses

**Status code: 200**

Success

```
{
  "projectId" : "0250cb8a80c24c0b9f20f557cb159aad",
  "cpu" : 796,
  "ram" : 1622016,
  "audit_quota" : 1
}
```

**Status code: 400**

Client error.

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Client error. |
| 403 | Authentication failed. |
| 500 | Server error. |

### Error Codes

See **Error Codes**.

## 3.1.4 Querying ECS Specifications

### Function

This API is used to query ECS specifications.

### URI

GET /v1/{project_id}/dbss/audit/specification

**Table 3-26** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |

### Request Parameters

**Table 3-27** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| X-Auth-Token | Yes | String | User token |

### Response Parameters

**Status code: 200**

**Table 3-28** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| specification | Array of **EcsSpecificationBean** objects | ECS specifications set |

**Table 3-29** EcsSpecificationBean

| Parameter | Type | Description |
| --- | --- | --- |
| azs | Array of strings | Az information list |
| id | String | ECS specification ID |
| level | String | Level. [low,medium,high] |
| name | String | Name. ECS Type name. |
| proxy | Integer | Proxy<br>Database audit editions Basic:3<br>Database audit editions Professional:6<br>Database audit editions Advanced:30 |
| ram | Integer | Memory |
| vcpus | Integer | CPU |
| azType | String | Retrun : [null]. There's meaningless at the moment |

**Status code: 400**

**Table 3-30** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-31** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-32** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-33** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-34** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-35** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

/v1/{project_id}/dbss/audit/specification

## Example Responses

**Status code: 200**

Success

```
{
  "specification" : [ {
    "level" : "low",
    "id" : "s2.xlarge.4",
    "name" : "s2.xlarge.4",
    "vcpus" : 4,
    "ram" : 16384,
    "proxy" : 3,
    "azs" : [ "region-01-7a" ]
  }, {
    "level" : "medium",
    "id" : "s2.2xlarge.4",
    "name" : "s2.2xlarge.4",
    "vcpus" : 8,
    "ram" : 32768,
    "proxy" : 6,
    "azs" : [ "region-01-7a" ]
  }, {
    "level" : "high",
    "id" : "s3.4xlarge.4",
    "name" : "s3.4xlarge.4",
    "vcpus" : 16,
```

```
    "ram" : 65536,
    "proxy" : 30,
    "azs" : [ "region-01-7a", "region-01-7b" ]
  } ]
}
```

**Status code: 400**

Client error.

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Client error. |
| 403 | Authentication failed. |
| 500 | Server error. |

## Error Codes

See **Error Codes**.

# 3.1.5 Querying AZ Information

## Function

This API is used to query AZ information.

## URI

GET /v2/{project_id}/dbss/audit/availability-zone

**Table 3-36** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |

## Request Parameters

**Table 3-37** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| X-Auth-Token | Yes | String | User token |

## Response Parameters

**Status code: 200**

**Table 3-38** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| azs | Array of **AzInfo** objects | List of available zone information |

**Table 3-39** AzInfo

| Parameter | Type | Description |
| --- | --- | --- |
| zone_name | String | available zone name |
| zone_number | Integer | available zone number |
| az_type | String | available zone type |
| alias | String | available zone alias |
| alias_us | String | available zone alias in English |

**Status code: 400**

**Table 3-40** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-41** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |

| Parameter | Type | Description |
| --- | --- | --- |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-42** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-43** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-44** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-45** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v2/{project_id}/dbss/audit/availability-zone
```

## Example Responses

**Status code: 200**

Success

```
{
  "azs" : [ {
    "zone_name" : "region-01-7a",
    "zone_number" : 2,
    "az_type" : "normal",
    "alias" : "AZ 2",
    "alias_us" : "AZ2"
  }, {
    "zone_name" : "region-01-7b",
    "zone_number" : 1,
    "az_type" : "normal",
    "alias" : "AZ 1",
    "alias_us" : "AZ1"
  }, {
    "zone_name" : "region-01-7c",
    "zone_number" : 3,
    "az_type" : "normal",
    "alias" : "AZ3",
    "alias_us" : "AZ3"
  } ]
}
```

**Status code: 400**

Client error.

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Client error. |
| 403 | Authentication failed. |
| 500 | Server error. |

## Error Codes

See **Error Codes**.

# 3.1.6 Query Operation Logs

## Function

This API is used to query user operation logs.

## URI

POST /v1/{project_id}/{instance_id}/dbss/audit/operate-log

**Table 3-46** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |
| instance_id | Yes | String | Instance ID |

## Request Parameters

**Table 3-47** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| Content-type | Yes | String | The fixed value of this parameter is **application/json;charset=UTF-8**, which cannot be changed. |
| X-Auth-Token | Yes | String | User token |

**Table 3-48** Request body parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| time | No | **TimeRangeBean** object | Time range |
| user_name | No | String | Filter users to obtain operation logs |
| operate_name | No | String | Filter object names to obtain operation logs<br>The value can be : DOWNLOAD |
| result | No | String | Filter execution results to obtain operation logs [success, fail] |
| page | No | String | Page number |
| size | No | String | Number of records on each page |

**Table 3-49** TimeRangeBean

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| end_time | No | String | Start time. This parameter must be used together with end_time. The format must be yyyy-MM-dd HH:mm:ss.(UTC) |
| start_time | No | String | End time. This parameter must be used together with start_time. The format must be yyyy-MM-dd HH:mm:ss. (UTC) |
| time_range | No | String | Query time segment. The value can be : HALF_HOUR HOUR THREE_HOUR TWELVE_HOUR DAY (24 hours), WEEK (7 days), or MONTH (30 days). Enumerated value: HALF_HOUR HOUR THREE_HOUR TWELVE_HOUR DAY WEEK MONTH |

## Response Parameters

**Status code: 200**

**Table 3-50** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| total_num | Integer | Total |
| operate_log | Array of **OperateLogInfo** objects | Operation log list |

**Table 3-51** OperateLogInfo

| Parameter | Type | Description |
| --- | --- | --- |
| id | String | Operation log ID |
| user | String | Operation log user |
| time | String | Time when a record is generated. The format is timestamp. |

| Parameter | Type | Description |
| --- | --- | --- |
| function | String | Function type of the record.[Create new protected database, Create new user's email config, Update user's email config, Update user's alarm config, Delete system alarm record, Rules -> Sensitive Data Protect and so on.] |
| action | String | Operation type of the record. create: create update: update operate: operation (switch) delete: delete |
| name | String | Operation object of the record. |
| description | String | Description of the record. |
| result | String | Execution result of the user in the record. success indicates success. fail indicates failure. |

**Status code: 400**

**Table 3-52** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-53** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-54** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-55** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-56** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-57** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v1/{project_id}/{instance_id}/dbss/audit/operate-log

{
  "time" : {
    "time_range" : "HOUR"
  },
  "page" : 1,
  "size" : 10
}
```

## Example Responses

**Status code: 200**

Success

```
{
  "total_num" : 3,
  "operate_log" : [ {
    "id" : "1LJP-HgBCwCqSg3BVuAp",
    "user" : "hby-test",
    "time" : "2021-04-22 06:40:52",
    "function" : "Database list",
    "action" : "Delete",
    "name" : "db01 ",
    "description" : "Delete an audited database.",
    "result" : "success"
  }, {
    "id" : "07JO-HgBCwCqSg3ByOAD",
    "user" : "hby-test",
```

```
    "time" : "2021-04-22 06:40:15",
    "function" : "Database list",
    "action" : "Update",
    "name" : "db01 ",
    "description" : "Close the audit agent.",
    "result" : "success"
  }, {
    "id" : "ULKM93gBCwCqSg3BZeD1",
    "user" : "hby-test",
    "time" : "2021-04-22 03:07:56",
    "function" : "Database list",
    "action" : "Create",
    "name" : "db01",
    "description" : "Create a database.",
    "result" : "success"
  } ]
}
```


**Status code: 400**

Invalid parameter.


```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```


**Status code: 500**

Internal server error.


```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```


## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Invalid parameter. |
| 403 | Authentication failed. |
| 500 | Internal server error. |

## Error Codes

See **Error Codes**.

# 3.1.7 Modifying a Security Group

## Function

This API is used to modify a security group.

## URI

POST /v1/{project_id}/dbss/audit/security-group

**Table 3-58** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |

## Request Parameters

**Table 3-59** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| Content-type | Yes | String | The fixed value of this parameter is **application/json;charset=UTF-8**, which cannot be changed. |
| X-Auth-Token | Yes | String | User token |

**Table 3-60** Request body parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| resource_id | Yes | String | Resource ID (DBSS instances ID, the instance ID is not in the basic information.)<br>This parameter can be obtained through the interface : GET /v1/{project_id}/dbss/audit/instances |
| securitygroup_ids | Yes | Array of strings | Security group ID list (Only one update is allowed at present) |

## Response Parameters

**Status code: 200**

**Table 3-61** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| result | String | Response status. |

**Status code: 400**

**Table 3-62** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-63** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-64** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-65** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-66** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-67** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v1/{project_id}/dbss/audit/security-group

{
  "resource_id" : "062212d8-8e30-4783-9671-43f3f1f3bb1e",
  "securitygroup_ids" : [ "f0fbec06-bcf6-4c7e-99fa-f0ddfbb1d9bd" ]
}
```

## Example Responses

**Status code: 200**

Success

```
""
```

**Status code: 400**

Failure

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Failure |
| 403 | Authentication failed. |
| 500 | Server error. |

## Error Codes

See **Error Codes**.

# 3.2 Instance Purchase and Query APIs

# 3.2.1 Querying the Audit Instance List

## Function

This API is used to query the audit instance list.

## URI

GET /v1/{project_id}/dbss/audit/instances

**Table 3-68** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |

**Table 3-69** Query Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| offset | No | String | Offset. |
| limit | No | String | Number of query records |

## Request Parameters

**Table 3-70** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| X-Auth-Token | Yes | String | User token |

## Response Parameters

**Status code: 200**

**Table 3-71** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| servers | Array of **AuditInstanceListBean** objects | Instance information list |
| total | Integer | Total |

**Table 3-72** AuditInstanceListBean

| Parameter | Type | Description |
| --- | --- | --- |
| charge_model | String | Payment mode. Its value can be Period (yearly/monthly) or (Demand) pay-per-use. |
| comment | String | Remarks. |
| config_num | Integer | Total number of configured databases. |
| connect_ip | String | Connection address. |
| connect_ipv6 | String | IPv6 address. |
| cpu | Integer | Number of CPUs |
| created | String | Creation time |
| database_limit | Integer | Total number of supported databases |
| effect | Integer | **1**: The resource is frozen and can be released. **2**: The resource is frozen and cannot be released. **3**: The resource is frozen and cannot be renewed.<br>If the preceding information is not involved, null is returned. |
| expired | String | Expired time of instances. |
| id | String | ID (This is an auto-increment parameter and is meaningless at present.) |
| keep_days | String | Days until expiration. |
| name | String | Instance alias |
| new_version | String | If a value is returned, the upgrade is required. If no value is returned, the value is null. |
| port_id | String | ID of the port that the EIP is bound to |
| ram | Integer | Memory |
| region | String | Region where the instance is located |
| remain_days | String | Days past the expiration date. |
| resource_id | String | Resource ID (DBSS instances ID, the instance ID is not in the basic information.)<br>This parameter can be obtained through the interface : GET /v1/{project_id}/dbss/audit/instances |
| resource_spec_code | String | Instance specifications |

| Parameter | Type | Description |
| --- | --- | --- |
| scene | String | Scenario: Dictionary Value[POLICE,ILLEGAL,VERIFY,PARTNER,ARREARS,null] |
| security_group_id | String | Security group |
| specification | String | Instance specifications |
| status | String | Instance status. Its value can be: SHUTOFF (disabled), ACTIVE (operations allowed), DELETING (no operations allowed), BUILD (no operations allowed), DELETED (not displayed), ERROR (only deletion allowed), HAWAIT (waiting for the standby to be created; no operations allowed), FROZEN (only renewal, binding, and unbinding allowed) UPGRADING (no operations allowed) |
| subnet_id | String | Subnet ID |
| task | String | Task status. Its value can be: powering-on (the instance is being started and can be bound or unbound), powering-off (the instance is being stopped and can be bound or unbound) rebooting (the instance is being restarted and can be bound or unbound), delete_wait (the instance is waiting to be deleted and no operations are allowed on the cluster or instance), NO_TASK (the instance is not displayed) |
| version | String | Current version of the instance |
| vpc_id | String | VPC |
| zone | String | AZ |
| upgrade_log | String | Database instance upgragde log. |

**Status code: 400**

**Table 3-73** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-74** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-75** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-76** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-77** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-78** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v1/{project_id}/dbss/audit/instances
```

## Example Responses

**Status code: 200**

Success


```
{
  "servers" : [ {
    "name" : "DBSS-Test",
    "comment" : "",
    "connect_ipv6" : null,
    "status" : "ACTIVE",
    "task" : "NO_TASK",
    "id" : "8c53ed03-8ed7-4ff2-ad97-7b2d6d1dd364",
    "specification" : "Low | 3 Proxy",
    "zone" : "region-01-7a",
    "created" : "2021-04-21 04:37:54",
    "expired" : null,
    "subnet_id" : "97ef0bb5-3759-4db4-aa49-0d087ed49ce5",
    "cpu" : 4,
    "ram" : 16384,
    "region" : "eu-de",
    "version" : "21.04.16.164614",
    "charge_model" : "Demand",
    "remain_days" : null,
    "config_num" : 1,
    "effect" : null,
    "scene" : null,
    "connect_ip" : "192.168.0.229",
    "port_id" : "dc4bd420-e01c-4d12-a7ff-814f17c63079",
    "resource_id" : "062212d8-8e30-4783-9671-43f3f1f3bb1e",
    "vpc_id" : "76d98391-5abc-46ed-b8a8-f664202cb166",
    "security_group_id" : "f0fbec06-bcf6-4c7e-99fa-f0ddfbb1d9bd",
    "resource_spec_code" : "dbss.bypassaudit.low",
    "keep_days" : null,
    "new_version" : null,
    "database_limit" : 3
  } ],
  "total" : 1
}
```


**Status code: 400**

Failure


```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```


## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Failure |
| 403 | Authentication failed. |
| 500 | Server error. |

## Error Codes

See **Error Codes**.

# 3.2.2 Query instance creation task information

## Function

This API is used to query instance creation task information.

## URI

GET /v1/{project_id}/dbss/audit/jobs/{resource_id}

**Table 3-79** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |
| resource_id | Yes | String | Resource ID (DBSS instances ID, the instance ID is not in the basic information.)<br>This parameter can be obtained through the interface : GET /v1/{project_id}/dbss/audit/instances |

## Request Parameters

**Table 3-80** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| X-Auth-Token | Yes | String | User token |

## Response Parameters

**Status code: 200**

**Table 3-81** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| jobs | Array of **JobBean** objects | job list |

**Table 3-82** JobBean

| Parameter | Type | Description |
| --- | --- | --- |
| job_id | String | Task ID, which is used for asynchronous query. |
| status | String | Status.[SUCCESS,RUNNING,FAIL,INIT,READY] |
| job_type | String | Job type.This field is not used |
| server_id | String | VM ID |
| server_name | String | VM name |
| begin_time | Long | Task Start time.Displayed with a 13-digit timestamp |
| end_time | Long | Task End time. Displayed with a 13-digit timestamp |
| charge_mode | String | Billing mode.[Period,Demand] |
| error_code | String | Error code(If the creation is successful, the returned value is null.) |
| fail_reason | String | Failure cause(If the creation is successful, the returned value is null.) |
| ha_id | String | Resource ID(This parameter is reserved for historical APIs and is meaningless.) |
| ha_name | String | Resource name(This parameter is reserved for historical APIs and is meaningless.) |

**Status code: 400**

**Table 3-83** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-84** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-85** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-86** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-87** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-88** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v1/{project_id}/dbss/audit/jobs/{resource_id}
```

## Example Responses

**Status code: 200**

Success

```
{
  "jobs" : [ {
    "status" : "SUCCESS",
    "job_type" : null,
    "job_id" : "8abf9647852a1daa01852e517e1a1a0b",
    "begin_time" : 1671519371000,
    "end_time" : 1671519417000,
    "error_code" : null,
    "fail_reason" : null,
    "charge_mode" : "Demand",
    "server_name" : "DBSS-qct-1220",
    "server_id" : "0aa8f621-bc19-4822-b66d-7ab9ae3c8693"
```

```
  } ]
}
```

**Status code: 400**

Failure

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

**Status code: 500**

Internal server error.

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Failure |
| 403 | Authentication failed. |
| 500 | Internal server error. |

## Error Codes

See **Error Codes**.

# 3.2.3 Creating an Audit Instance in Yearly/Monthly Billing Mode

## Function

This API is used to Creating an audit instance in yearly/monthly billing mode.

## URI

POST /v2/{project_id}/dbss/audit/charge/period/order

**Table 3-89** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |

## Request Parameters

**Table 3-90** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| Content-type | Yes | String | The fixed value of this parameter is **application/json;charset=UTF-8**, which cannot be changed. |
| X-Auth-Token | Yes | String | User token |

**Table 3-91** Request body parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| flavor_ref | Yes | String | Specifies the ID of the specifications used by the ECS. |
| name | Yes | String | ECS name. Value range: Enter a maximum of 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. If the number of ECSs to be created is greater than 1, the length cannot exceed 59 characters. |
| vpc_id | Yes | String | VPC ID |
| availability_zone | Yes | String | Availability zone to which the ECS belongs. (Primary and secondary AZs are separated by commas. Example: az1.dc1,az2.dc2) |
| enterprise_project_id | Yes | String | Enterprise project ID. |
| nics | Yes | Array of **nics** objects | NIC of the ECS. |
| security_groups | Yes | Array of **security_groups** objects | Information about the security group to which the ECS belongs. |

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| comment | No | String | Remarks |
| region | Yes | String | ID of the region where the ECS is located. |
| cloud_service_type | Yes | String | Service type. Default value: hws.service.type.dbss |
| charging_mode | Yes | Integer | Billing mode: 0: yearly/monthly 1: pay-per-use |
| period_type | Yes | Integer | Subscription period type: 0: day 1: week 2: month t3: year 4: hour 5: absolute time |
| period_num | Yes | Integer | Subscription period |
| subscription_num | Yes | Integer | Subscription quantity. Only one set of DBSS can be subscribed to. |
| product_infos | Yes | Array of **product_infos** objects | Product list |
| tags | No | Array of **KeyValueBean** objects | Resource tag |
| promotion_info | No | String | Discount information |
| is_auto_renew | No | Integer | Auto-renewal: The value 1 indicates auto-renewal is enabled, and the value 0 indicates auto-renewal is disabled. |

**Table 3-92** nics

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| subnet_id | Yes | String | Subnet ID of the NIC. |
| ip_address | No | String | Specifies the IP address. If the value of this parameter is left blank or is set to an empty string, the IP address is automatically assigned. |

**Table 3-93** security_groups

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| id | Yes | String | Specifies the ID of the security group corresponding to the ECS. This ID takes effect for the NIC configured on the ECS. |

**Table 3-94** product_infos

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| product_id | Yes | String | Product ID |
| cloud_service_type | Yes | String | Service type. Default value: hws.service.type.dbss |
| resource_type | Yes | String | Resource type. Default value: hws.resource.type.dbss |
| resource_spec_code | Yes | String | Resource specifications.dbss.bypassaudit.low, dbss.bypassaudit.medium, dbss.bypassaudit.high |
| product_spec_desc | Yes | String | Product specification description.JSON string format:<br>{"specDesc":{"zh-cn":{"key1":"value1"},"en-us":{"key1":"value1"}}} |

**Table 3-95** KeyValueBean

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| key | Yes | String | Key |
| value | Yes | String | Value |

## Response Parameters

**Status code: 200**

**Table 3-96** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| description | String | Description |
| code | String | Return code |
| order_id | String | Order ID |

**Status code: 400**

**Table 3-97** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-98** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-99** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-100** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-101** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-102** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

Create a medium edition instance "chargin_mode : 0" in the yearly/monthly billing mode "resource_spec_code" : "dbss.bypassaudit.medium".

```
{
    "flavor_ref": "c6.2xlarge.2",
    "name": "DBSS-test",
    "vpc_id": "4c035747-f77b-4c6d-b23b-cb3a2b96c7e6",
    "availability_zone": "cn-north-7b",
    "comment": "",
    "region": "cn-north-7",
    "nics": [
      {
        "subnet_id": "6201dcf2-1374-43ec-ae8b-78b4081572d3"
      }
    ],
    "security_groups": [
      {
        "id": "59c45017-a484-481b-8440-18c2214ccb06"
      }
    ],
    "cloud_service_type": "hws.service.type.dbss",
    "charging_mode": 0,
    "period_type": 2,
    "period_num": 1,
    "subscription_num": 1,
    "is_auto_renew": 0,
    "product_infos": [
      {
        "product_id": "00301-225396-0--0",
        "cloud_service_type": "hws.service.type.dbss",
        "resource_type": "hws.resource.type.dbss",
        "resource_spec_code": "dbss.bypassaudit.medium",
        "product_spec_desc": "{\"specDesc\":{\"zh-cn\":{\"key1\":\"value1\"},\"en-us\":
{\"key1\":\"value1\"}}}"
      }
    ],
    "promotion_info": "",
    "enterprise_project_id": "0"
  }
```

## Example Responses

**Status code: 200**

Success

```
{
  "description" : " Success",
  "code" : "0",
  "order_id" : "CS1710190909OGQIS"
}
```

**Status code: 400**

Failure

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Failure |
| 403 | Authentication failed. |
| 500 | Server error. |

## Error Codes

See **Error Codes**.

# 3.3 Database APIs

# 3.3.1 Querying Databases

## Function

This API is used to query databases.

## URI

GET /v1/{project_id}/{instance_id}/dbss/audit/databases

**Table 3-103** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| instance_id | Yes | String | Instance ID |

**Table 3-104** Query Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| status | No | String | Database status [ON,OFF] |
| offset | No | String | Offset |
| limit | No | String | Number of query records |

## Request Parameters

**Table 3-105** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| X-Auth-Token | Yes | String | User token |

## Response Parameters

**Status code: 200**

**Table 3-106** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| databases | Array of **DataBaseBean** objects | Database information list |
| total | Integer | Total |

**Table 3-107** DataBaseBean

| Parameter | Type | Description |
| --- | --- | --- |
| database | **DataBase** object | Database information |

**Table 3-108** DataBase

| Parameter | Type | Description |
| --- | --- | --- |
| id | String | Database ID. This parameter can be obtained through the interface provided by the RDS service: GET /v3/{project_id}/instances |
| name | String | Database name. This parameter can be obtained through the interface provided by the RDS service: GET /v3/{project_id}/instances |
| type | String | Type of the added database. Enumerated values: MYSQL ORACLE POSTGRESQL SQLSERVER DAMENG TAURUS DWS KINGBASE GAUSSDBOPENGAUSS GREENPLUM HIGHGO SHENTONG GBASE8A GBASE8S GBASEXDM MONGODB DDS |
| version | String | Database version |
| charset | String | Database character set |
| ip | String | IP address |
| port | String | Database port |
| os | String | Database OS |

| Parameter | Type | Description |
| --- | --- | --- |
| status | String | Database status.This parameter can be obtained through the interface provided by the RDS service: GET /v3/{project_id}/instances<br>GET https://{Endpoint}/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}<br>If the value is **BUILD**, the instance is being created.<br>If the value is **ACTIVE**, the instance is normal.<br>If the value is **FAILED**, the instance is abnormal.<br>If the value is **MODIFYING**, the instance is being scaled up.<br>If the value is **REBOOTING**, the instance is being rebooted.<br>If the value is **RESTORING**, the instance is being restored.<br>If the value is **MODIFYING INSTANCE TYPE**, the instance is changing from primary to standby.<br>If the value is **SWITCHOVER**, the primary/standby switchover is being performed.<br>If the value is **MIGRATING**, the instance is being migrated.<br>If the value is **BACKING UP**, the instance is being backed up.<br>If the value is **MODIFYING DATABASE PORT**, the database port is being changed.<br>If the value is **SHUTDOWN**, the DB instance is stopped. |
| instance_name | String | Database instance name |
| audit_status | String | Database running status. Enumerated values: ACTIVE SHUTOFF ERROR |
| agent_url | Array of strings | Unique ID of the agent |
| db_classification | String | Database type. Its value can be: RDS,ECS (customer-built) |
| rds_id | String | Rds database ID |
| rds_obj_info | String | Full Log Audit Bucket Information. |

| Parameter | Type | Description |
| --- | --- | --- |
| dws_obj_info | String | Full Log Audit Bucket Information. |

**Status code: 400**

**Table 3-109** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-110** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-111** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-112** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-113** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-114** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

/v1/{project_id}/{instance_id}/dbss/audit/databases

## Example Responses

**Status code: 200**

Success

```
{
  "databases" : [ {
    "database" : {
      "id" : "zLKv83gBCwCqSg3BJt0m",
      "name" : "db01",
      "type" : "MYSQL",
      "version" : "5.0",
      "charset" : "UTF8",
      "ip" : "192.168.0.204",
      "port" : "3306",
      "os" : "LINUX64",
      "status" : "OFF",
      "instance_name" : "",
      "audit_status" : null,
      "agent_url" : [ "zrKw83gBCwCqSg3Bkt1P" ],
      "db_classification" : "ECS"
    }
  } ]
}
```

**Status code: 400**

Invalid parameter.

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

**Status code: 500**

Internal server error.

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

### Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Invalid parameter. |
| 403 | Authentication failed. |
| 500 | Internal server error. |

### Error Codes

See **Error Codes**.

## 3.3.2 Adding an Agent-Free RDS Database

### Function

This API is used to add an agent-free RDS database.

### URI

POST /v1/{project_id}/{instance_id}/dbss/audit/databases/rds

**Table 3-115** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |
| instance_id | Yes | String | Instance ID |

### Request Parameters

**Table 3-116** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| Content-type | Yes | String | The fixed value of this parameter is **application/json;charset=UTF-8**, which cannot be changed. |
| X-Auth-Token | Yes | String | User token |

**Table 3-117** Request body parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| databases | Yes | Array of **databases** objects | List of added databases |
| total_count | No | Integer | Total |

**Table 3-118** databases

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| id | Yes | String | Database ID.This parameter can be obtained through the interface provided by the RDS service: GET /v3/{project_id}/instances |
| db_name | Yes | String | Database name.This parameter can be obtained through the interface provided by the RDS service: GET /v3/{project_id}/instances |

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| status | Yes | String | Database status. This parameter can be obtained through the interface provided by the RDS service: GET /v3/{project_id}/instances<br>GET https://{*Endpoint*}/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}<br>If the value is **BUILD**, the instance is being created.<br>If the value is **ACTIVE**, the instance is normal.<br>If the value is **FAILED**, the instance is abnormal.<br>If the value is **MODIFYING**, the instance is being scaled up.<br>If the value is **REBOOTING**, the instance is being rebooted.<br>If the value is **RESTORING**, the instance is being restored.<br>If the value is **MODIFYING INSTANCE TYPE**, the instance is changing from primary to standby.<br>If the value is **SWITCHOVER**, the primary/standby switchover is being performed.<br>If the value is **MIGRATING**, the instance is being migrated.<br>If the value is **BACKING UP**, the instance is being backed up.<br>If the value is **MODIFYING DATABASE PORT**, the database port is being changed.<br>If the value is **SHUTDOWN**, the DB instance is stopped. |
| port | Yes | String | Database port |
| ip | Yes | String | IP address |

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| instance_name | Yes | String | DB instance name |
| version | Yes | String | Database version.MySQL 8.0 |
| type | Yes | String | Database type.Support RDS |
| enterprise_id | Yes | String | Enterprise project ID |
| enterprise_name | No | String | Enterprise project name |

## Response Parameters

**Status code: 200**

**Table 3-119** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| illegal_db_id | Array of strings | ID of the database instance that fails to be added. |
| legal_db_id | Array of strings | ID of the database instance that is successfully added. |

**Status code: 400**

**Table 3-120** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-121** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-122** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-123** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-124** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-125** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v1/{project_id}/{instance_id}/dbss/audit/databases/rds
```

```
{
  "databases" : [ {
    "id" : "123751d3ee2f47aea64822e98318c6a8in01",
    "db_name" : "rds1",
    "status" : "ACTIVE",
    "port" : "3306",
    "ip" : "192.168.0.119",
    "instance_name" : "rds1",
    "version" : "8.0",
    "type" : "MySQL"
  }, {
    "id" : "2343f7285d684fed8b09fac201c3fc7ain01",
    "db_name" : "rds2",
    "status" : "ACTIVE",
    "port" : "3306",
    "ip" : "192.168.0.92",
    "instance_name" : "rds2",
    "version" : "8.0",
    "type" : "MySQL"
```

```
 } ]
}
```

## Example Responses

**Status code: 200**

Success

```
{
  "illegal_db_id" : [ ],
  "legal_db_id" : [ "123751d3ee2f47aea64822e98318c6a8in01", "2343f7285d684fed8b09fac201c3fc7ain01" ]
}
```

**Status code: 400**

Failure

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Failure |
| 403 | Authentication failed. |
| 500 | Server error. |

## Error Codes

See **Error Codes**.

# 3.4 Tag APIs

# 3.4.1 Querying Project Tags

## Function

This API is used to query project tags.

## URI

GET /v1/{project_id}/{resource_type}/tags

**Table 3-126** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |
| resource_type | Yes | String | Resource type.Default usage: auditInstance |

## Request Parameters

**Table 3-127** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| X-Auth-Token | Yes | String | User token |

## Response Parameters

**Status code: 200**

**Table 3-128** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| tags | Array of **tags** objects | Tag list |

**Table 3-129** tags

| Parameter | Type | Description |
| --- | --- | --- |
| key | String | Key. The value can contain up to 128 characters.The key must comply with the 3.1 KEY character set specifications. |
| values | Array of strings | Value list. Enter a maximum of 255 characters.The value must comply with specifications described in 3.2 Character Set Specifications for VALUE. |

**Status code: 400**

**Table 3-130** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-131** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-132** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-133** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-134** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-135** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

/v1/{project_id}/{resource_type}/tags

## Example Responses

**Status code: 200**

Success

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

**Status code: 400**

Failure

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Failure |
| 403 | Authentication failed. |
| 500 | Server error. |

## Error Codes

See **Error Codes**.

# 3.4.2 Querying Resource Instances by Tag

## Function

This API is used to query resource instances by tag.

## URI

POST /v1/{project_id}/{resource_type}/resource-instances/filter

**Table 3-136** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |
| resource_type | Yes | String | Resource type. Default usage: auditInstance |

**Table 3-137** Query Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| limit | No | String | Number of records to be queried. This parameter is not available when **action** is set to **count**. If **action** is set to **filter**, the default value is **1000**. The maximum value is **1000**, and the minimum value is **1**. The value cannot be a negative number. |
| offset | No | String | The index position. This parameter is not available when **action** is set to **count**. If **offset** is set to *N*, the resource query starts from the N+1 piece of data. If **action** is set to **filter**, the value of **offset** is **0** by default, indicating that the query starts from the first piece of data. The **offset** value must be a number and cannot be a negative number. |

## Request Parameters

**Table 3-138** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| Content-type | Yes | String | The fixed value of this parameter is **application/json;charset=UTF-8**, which cannot be changed. |
| X-Auth-Token | Yes | String | User token |

**Table 3-139** Request body parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| matches | No | Array of **matches** objects | Specifies the search field. The tag key is the field to be matched, for example, **resource_name**. The tag value indicates the value to be matched. The key is a fixed dictionary value and cannot be a duplicate key or unsupported key. Check whether fuzzy match is required based on the key value. For example, if key is set to resource_name, fuzzy search (case-insensitive) is performed by default. If value is empty, exact match is performed. Most services do not have resources without names. In this case, an empty list is returned. If key is resource_id, exact match is used. Only resource_name for key is supported. Other key values will be available later. |
| not_tags | No | Array of **TagKeyValuesBean** objects | Tags are excluded, a maximum of 50 tag keys are included, and each tag value can have a maximum of 10 values. Each tag value can be an empty array, but the tag structure cannot be missing. Keys must be unique and values of a key must be unique. The response returns instances containing no tag in this list. Keys are in the AND relationship and values in each key-value structure is in the OR relationship. If no filtering condition is specified, full data is returned. |

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| tags | No | Array of **TagKeyValuesBean** objects | The resources to be queried contain tags listed in **tags**. Each instance to be queried contains a maximum of 50 keys. Each tag key has a maximum of 10 tag values. The tag value corresponding to each tag key can be an empty array but the structure cannot be missing. Each tag key and each value of the same tag key must be unique. The response returns instances containing all tags in this list. Keys in this list are in the AND relationship and values in each key-value structure are in the OR relationship. If no tag filtering criteria is specified, full data is returned. |
| tags_any | No | Array of **TagKeyValuesBean** objects | Any tags are included. A maximum of 50 tag keys are included, and each tag key can have a maximum of 10 values. Each tag value can be an empty array, but the tag structure cannot be missing. Keys must be unique and values of a key must be unique. The response returns instances containing any tag in this list. Keys in this list are in the OR relationship and values in each key-value structure are also in the OR relationship. If no filtering condition is specified, full data is returned. |

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| not_tags_any | No | Array of **TagKeyValuesBean** objects | Tags are excluded, a maximum of 50 tag keys are included, and each tag key can have a maximum of 10 values. Each tag value can be an empty array, but the tag structure cannot be missing. Keys must be unique and values of a key must be unique. The response returns resources containing no tag in this list. Keys in this list are in the OR relationship and values in each key-value structure are also in the OR relationship. If no filtering condition is specified, full data is returned. |
| sys_tags | No | **TagKeyValuesBean** object | Only the op_service permission can use this field to filter resources. Currently, TMS can only invoke the following one tag structure. Key: _sys_enterprise_project_id and the value is an enterprise project ID list. Currently, key contains only one value. 0 indicates the default enterprise projec. sys_tags and tenant tag filtering conditions (without_any_tag, tags, tags_any, not_tags, and not_tags_any) cannot be used at the same time. If no sys_tags exists, filter with other tag interfaces. If no tag filtering condition is specified, full data is returned. |
| without_any_tag | No | Boolean | If this parameter is set to true, all resources without tags are queried. In this case, the tags, tags_any, not_tags, and not_tags_any fields are ignored. |

**Table 3-140** matches

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| key | No | String | Key |
| value | No | String | Value |

**Table 3-141** TagKeyValuesBean

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| key | Yes | String | Specifies the tag key. It can contain up to 128 Unicode characters. It cannot be left blank. The system does not verify the character set of **key** when searching for resources. **key** cannot be empty, an empty string, or spaces. Before using **key**, delete single-byte character (SBC) spaces before and after the value. |
| values | Yes | Array of strings | Specifies the tag values. Each value contains a maximum of 255 Unicode characters. Before verifying and using **values**, delete SBC spaces before and after the value.The tag value can be an empty array but cannot be left blank.If values is left blank, it indicates any_value (querying any value). All values of a tag key are in the OR relationship. |

## Response Parameters

**Status code: 200**

**Table 3-142** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| resources | Array of **resources** objects | Resource instance list |
| total_count | Integer | Total number of records. |

**Table 3-143** resources

| Parameter | Type | Description |
| --- | --- | --- |
| resource_detail | Object | Resource details. Resource details are used for extension. This parameter is left blank by default. |
| resource_id | String | Resource ID (DBSS instances ID, the instance ID is not in the basic information.)<br>This parameter can be obtained through the interface : GET /v1/{project_id}/dbss/audit/instances |
| resource_name | String | Specifies the resource name. If the resource does not have a name, the ID is returned. |
| tags | Array of **tags** objects | The tag list. This parameter is an empty array by default if there is no tag. |
| sys_tags | Array of **sys_tags** objects | Only the op_service permission can obtain this field.Currently, only one structure resource_tag is used.Key: _sys_enterprise_project_idValue: enterprise project ID. The value 0 indicates the default enterprise project.This field cannot be returned in the non-op_service scenario. |

**Table 3-144** tags

| Parameter | Type | Description |
| --- | --- | --- |
| key | String | Key |
| value | String | Value |

**Table 3-145** sys_tags

| Parameter | Type | Description |
| --- | --- | --- |
| key | String | Key |
| value | String | Value |

**Status code: 400**

**Table 3-146** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-147** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-148** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-149** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-150** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-151** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v1/{project_id}/{resource_type}/resource-instances/filter
```

```
{
  "matches" : [ {
    "key" : "resource_name",
    "value" : "resource1"
  } ],
  "not_tags" : [ {
    "key" : "key1",
    "values" : [ "*value1", "value2" ]
  } ],
  "tags" : [ {
    "key" : "key1",
    "values" : [ "*value1", "value2" ]
  } ],
  "tags_any" : [ {
    "key" : "key1",
    "values" : [ "value1", "value2" ]
  } ],
  "not_tags_any" : [ {
    "key" : "key1",
    "values" : [ "value1", "value2" ]
  } ]
}
```

## Example Responses

**Status code: 200**

Success

```
{
  "resources" : [ {
    "resource_detail" : null,
    "resource_id" : "cdfs_cefs_wesas_12_dsad",
    "resource_name" : "resouece1",
    "tags" : [ {
      "key" : "key1",
      "value" : "value1"
    }, {
      "key" : "key2",
      "value" : "value1"
    } ]
  "total_count" : 1000
}
```

**Status code: 400**

Failure

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Failure |
| 403 | Authentication failed. |

| Status Code | Description |
| --- | --- |
| 500 | Server error. |

## Error Codes

See **Error Codes**.

# 3.4.3 Querying the Number of Resource Instances by Tag

## Function

This API is used to query the number of resource instances by tag.

## URI

POST /v1/{project_id}/{resource_type}/resource-instances/count

**Table 3-152** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |
| resource_type | Yes | String | Resource type.Default usage: auditInstance |

## Request Parameters

**Table 3-153** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| Content-type | Yes | String | The fixed value of this parameter is **application/json;charset=UTF-8**, which cannot be changed. |
| X-Auth-Token | Yes | String | User token |

**Table 3-154** Request body parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| matches | No | Array of **matches** objects | Specifies the search field. The tag key is the field to be matched, for example, **resource_name**. The tag value indicates the value to be matched. The key is a fixed dictionary value and cannot be a duplicate key or unsupported key. Check whether fuzzy match is required based on the key value. For example, if key is set to resource_name, fuzzy search (case-insensitive) is performed by default. If value is empty, exact match is performed. Most services do not have resources without names. In this case, an empty list is returned. If key is resource_id, exact match is used. Only resource_name for key is supported. Other key values will be available later. |
| not_tags | No | Array of **TagKeyValuesBean** objects | Tags are excluded, a maximum of 50 tag keys are included, and each tag value can have a maximum of 10 values. Each tag value can be an empty array, but the tag structure cannot be missing. Keys must be unique and values of a key must be unique. The response returns instances containing no tag in this list. Keys are in the AND relationship and values in each key-value structure is in the OR relationship. If no filtering condition is specified, full data is returned. |

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| tags | No | Array of **TagKeyValuesBean** objects | The resources to be queried contain tags listed in **tags**. Each instance to be queried contains a maximum of 50 keys. Each tag key has a maximum of 10 tag values. The tag value corresponding to each tag key can be an empty array but the structure cannot be missing. Each tag key and each value of the same tag key must be unique. The response returns instances containing all tags in this list. Keys in this list are in the AND relationship and values in each key-value structure are in the OR relationship. If no tag filtering criteria is specified, full data is returned. |
| tags_any | No | Array of **TagKeyValuesBean** objects | Any tags are included. A maximum of 50 tag keys are included, and each tag key can have a maximum of 10 values. Each tag value can be an empty array, but the tag structure cannot be missing. Keys must be unique and values of a key must be unique. The response returns instances containing any tag in this list. Keys in this list are in the OR relationship and values in each key-value structure are also in the OR relationship. If no filtering condition is specified, full data is returned. |

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| not_tags_any | No | Array of **TagKeyValuesBean** objects | Tags are excluded, a maximum of 50 tag keys are included, and each tag key can have a maximum of 10 values. Each tag value can be an empty array, but the tag structure cannot be missing. Keys must be unique and values of a key must be unique. The response returns resources containing no tag in this list. Keys in this list are in the OR relationship and values in each key-value structure are also in the OR relationship. If no filtering condition is specified, full data is returned. |
| sys_tags | No | **TagKeyValuesBean** object | Only the op_service permission can use this field to filter resources. Currently, TMS can only invoke the following one tag structure. Key: _sys_enterprise_project_id and the value is an enterprise project ID list. Currently, key contains only one value. 0 indicates the default enterprise projec. sys_tags and tenant tag filtering conditions (without_any_tag, tags, tags_any, not_tags, and not_tags_any) cannot be used at the same time. If no sys_tags exists, filter with other tag interfaces. If no tag filtering condition is specified, full data is returned. |
| without_any_tag | No | Boolean | If this parameter is set to true, all resources without tags are queried. In this case, the tags, tags_any, not_tags, and not_tags_any fields are ignored. |

**Table 3-155** matches

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| key | No | String | Key |
| value | No | String | Value |

**Table 3-156** TagKeyValuesBean

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| key | Yes | String | Specifies the tag key. It can contain up to 128 Unicode characters. It cannot be left blank. The system does not verify the character set of **key** when searching for resources. **key** cannot be empty, an empty string, or spaces. Before using **key**, delete single-byte character (SBC) spaces before and after the value. |
| values | Yes | Array of strings | Specifies the tag values. Each value contains a maximum of 255 Unicode characters. Before verifying and using **values**, delete SBC spaces before and after the value.The tag value can be an empty array but cannot be left blank.If values is left blank, it indicates any_value (querying any value). All values of a tag key are in the OR relationship. |

## Response Parameters

**Status code: 200**

**Table 3-157** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| resources | Array of **resources** objects | Resource instance list |
| total_count | Integer | Total number of records. |

**Table 3-158** resources

| Parameter | Type | Description |
| --- | --- | --- |
| resource_detail | Object | Resource details. Resource details are used for extension. This parameter is left blank by default. |
| resource_id | String | Resource ID (DBSS instances ID, the instance ID is not in the basic information.)<br>This parameter can be obtained through the interface : GET /v1/{project_id}/dbss/audit/instances |
| resource_name | String | Specifies the resource name. If the resource does not have a name, the ID is returned. |
| tags | Array of **tags** objects | The tag list. This parameter is an empty array by default if there is no tag. |
| sys_tags | Array of **sys_tags** objects | Only the op_service permission can obtain this field.Currently, only one structure resource_tag is used.Key: _sys_enterprise_project_idValue: enterprise project ID. The value 0 indicates the default enterprise project.This field cannot be returned in the non-op_service scenario. |

**Table 3-159** tags

| Parameter | Type | Description |
| --- | --- | --- |
| key | String | Key |
| value | String | Value |

**Table 3-160** sys_tags

| Parameter | Type | Description |
| --- | --- | --- |
| key | String | Key |
| value | String | Value |

**Status code: 400**

**Table 3-161** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-162** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-163** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-164** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-165** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-166** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v1/{project_id}/{resource_type}/resource-instances/count
```

```
{
  "matches" : [ {
    "key" : "resource_name",
    "value" : "resource1"
  } ],
  "not_tags" : [ {
    "key" : "key1",
    "values" : [ "*value1", "value2" ]
  } ],
  "tags" : [ {
    "key" : "key1",
    "values" : [ "*value1", "value2" ]
  } ],
  "tags_any" : [ {
    "key" : "key1",
    "values" : [ "value1", "value2" ]
  } ],
  "not_tags_any" : [ {
    "key" : "key1",
    "values" : [ "value1", "value2" ]
  } ]
}
```

## Example Responses

**Status code: 200**

Success

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

**Status code: 400**

Failure

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Failure |
| 403 | Authentication failed. |
| 500 | Server error. |

## Error Codes

See **Error Codes**.

# 3.4.4 Adding Resource Tags in Batches

## Function

This API is used to add resource tags in batches.

## URI

POST /v1/{project_id}/{resource_type}/{resource_id}/tags/create

**Table 3-167** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |
| resource_type | Yes | String | Resource type.Default usage: auditInstance |
| resource_id | Yes | String | Resource ID (DBSS instances ID, the instance ID is not in the basic information.)<br>This parameter can be obtained through the interface : GET /v1/{project_id}/dbss/audit/instances |

## Request Parameters

**Table 3-168** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| Content-type | Yes | String | The fixed value of this parameter is **application/json;charset=UTF-8**, which cannot be changed. |
| X-Auth-Token | Yes | String | User token |

**Table 3-169** Request body parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| tags | No | Array of KeyValueBean objects | Tag list This parameter is mandatory for tenants. For users with the op_service permission, choose either this field or sys_tags. |
| sys_tags | No | Array of KeyValueBean objects | System tag listThis field is available only to the op_service permission. Choose either this field or tags.Currently, TMS invokes only one resource_tag structure. The key is fixed as _sys_enterprise_project_id.The value is UUID or 0. 0 indicates the enterprise project by default. |

**Table 3-170** KeyValueBean

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| key | Yes | String | Key |
| value | Yes | String | Value |

## Response Parameters

**Status code: 400**

**Table 3-171** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-172** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-173** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-174** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-175** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-176** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v1/{project_id}/{resource_type}/{resource_id}/tags/create

{
  "tags" : [ {
    "key" : "key1"
  }, {
    "key" : "key2",
    "value" : "value3"
  } ],
  "sys_tags" : [ {
    "key" : "_sys_enterprise_project_id",
    "value" : "5aa119a8-d25b-45a7-8d1b-88e127885635"
  } ]
}
```

## Example Responses

**Status code: 204**

Success

**Status code: 400**

Failure

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 204 | Success |
| 400 | Failure |
| 403 | Authentication failed. |
| 500 | Server error. |

## Error Codes

See **Error Codes**.

# 3.4.5 Batch Deleting Resource Tags

## Function

This API is used to batch delete resource tags.

## URI

DELETE /v1/{project_id}/{resource_type}/{resource_id}/tags/delete

**Table 3-177** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |
| resource_type | Yes | String | Resource type. Default usage: auditInstance |

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| resource_id | Yes | String | Resource ID (DBSS instances ID, the instance ID is not in the basic information.)<br>This parameter can be obtained through the interface : GET /v1/{project_id}/dbss/audit/instances |

## Request Parameters

**Table 3-178** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| X-Auth-Token | Yes | String | User token |

**Table 3-179** Request body parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| tags | No | Array of **KeyValueBean** objects | Tag list This parameter is mandatory for tenants. For users with the op_service permission, choose either this field or sys_tags. |
| sys_tags | No | Array of **KeyValueBean** objects | System tag listThis field is available only to the op_service permission. Choose either this field or tags.Currently, TMS invokes only one resource_tag structure. The key is fixed as _sys_enterprise_project_id.The value is UUID or 0. 0 indicates the enterprise project by default. |

**Table 3-180** KeyValueBean

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| key | Yes | String | Key |

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| value | Yes | String | Value |

## Response Parameters

**Status code: 400**

**Table 3-181** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-182** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-183** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-184** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-185** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-186** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v1/{project_id}/{resource_type}/{resource_id}/tags/delete

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

## Example Responses

**Status code: 204**

Success

**Status code: 400**

Failure

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 204 | Success |
| 400 | Failure |
| 403 | Authentication failed. |
| 500 | Server error. |

### Error Codes

See **Error Codes**.

# 3.5 Instance Rule APIs

## 3.5.1 Querying the Audit Scope Policy List

### Function

This API is used to query the audit scope policy list.

### URI

GET /v1/{project_id}/{instance_id}/dbss/audit/rule/scopes

**Table 3-187** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |
| instance_id | Yes | String | Instance ID |

**Table 3-188** Query Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| offset | No | String | Offset |
| limit | No | String | Number of query records |

### Request Parameters

**Table 3-189** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| X-Auth-Token | Yes | String | User token |

### Response Parameters

**Status code: 200**

**Table 3-190** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| scopes | Array of **RuleScopeInfo** objects | Audit scope rule list |
| total | Integer | Total |

**Table 3-191** RuleScopeInfo

| Parameter | Type | Description |
| --- | --- | --- |
| id | String | Audit scope rule ID |
| name | String | Audit scope name |
| action | String | Actions in the audit scope [REVOKE,DROP_TABLE,SELECT_FOR_UPDATE,SELECT,ROLLBACK,CREATE_TABLESPACE,DELETE,GRANT,DROP_USER,DROP_TABLESPACE,UPDATE,INSERT,CREATE_USER,CREATE_TABLE,LOGIN] |
| status | String | Audit scope rule status [Enabled,Disabled] |
| exception_ips | String | Exception IP address of the audit scope |
| source_ips | String | Source IP address of the audit scope rule |
| source_ports | String | Port of the audit scope rule |
| db_ids | String | Database ID |
| db_names | String | Database name |
| db_users | String | Database account |
| all_audit | Boolean | Full audit or not<br>true : Full audit<br>false : not Full audit |

**Status code: 400**

**Table 3-192** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-193** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-194** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-195** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-196** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-197** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v1/{project_id}/{instance_id}/dbss/audit/rule/scopes
```

## Example Responses

**Status code: 200**

Success

```
{
  "scopes" : [ {
    "id" : "zX4W2ngBo47GiyUSBuNs",
    "name" : "Full audit rule",
    "action" : "",
    "status" : "ON",
    "exception_ips" : "",
    "source_ips" : "",
    "source_ports" : "",
    "db_ids" : "",
    "db_names" : "",
    "db_users" : "",
    "all_audit" : true
  } ],
  "total" : 1
}
```

**Status code: 400**

Invalid parameter.

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

**Status code: 500**

Internal server error.

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Invalid parameter. |
| 403 | Authentication failed. |
| 500 | Internal server error. |

## Error Codes

See **Error Codes**.

# 3.5.2 Querying a SQL Injection Rule Policy

## Function

This API is used to query a SQL injection rule policy.

## URI

POST /v1/{project_id}/{instance_id}/dbss/audit/rule/sql-injections

**Table 3-198** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |
| instance_id | Yes | String | Instance ID |

## Request Parameters

**Table 3-199** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| Content-type | Yes | String | The fixed value of this parameter is **application/json;charset=UTF-8**, which cannot be changed. |
| X-Auth-Token | Yes | String | User token |

**Table 3-200** Request body parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| risk_levels | No | String | Risk level: (Use commas (,) to separate multiple queries.) HIGH MEDIUM LOW |

## Response Parameters

**Status code: 200**

**Table 3-201** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| rules | Array of **rules** objects | SQL rule list |
| total | Integer | Total number of items in the current scope |

**Table 3-202** rules

| Parameter | Type | Description |
| --- | --- | --- |
| id | String | SQL Rule ID |
| name | String | SQL rule name |
| status | String | Rule status: ON OFF |
| risk_level | String | Risk level: HIGH MEDIUM LOW |
| type | String | System default rules or user-defined rules. [SYSTEM,CUSTOMIZE] |
| rank | Integer | The priority of this rule, with values ranging from 1 to 8. The smaller the value, the higher the priority |
| feature | String | SQL command feature<br>For example : Delete * |
| regex | String | Regular expression |
| keywords | String | Keyword defined in the system rule. This field is available only for preset rules. |

**Status code: 400**

**Table 3-203** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-204** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-205** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-206** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-207** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-208** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v1/{project_id}/{instance_id}/dbss/audit/rule/sql-injections

{
  "risk_levels" : "HIGH"
}
```

## Example Responses

**Status code: 200**

Success

```
{
  "rules" : [ {
```

```
    "id" : "zX4W2ngBo47GiyUSBuNs",
    "name" : "MySQL error based SQL injection",
    "status" : "ON",
    "type" : "SYSTEM",
    "risk_level" : "HIGH",
    "rank" : 1,
    "feature" : "Regular expression",
    "regex" : "((.*)?(select)\\s+[0-9]+\\s+from\\s+\\(\\s*select\\s+count(.*)?(concat)\\s*(.*)?(from)\
\s*(information_schema.tables)(.*)?(group)\\s+(by)(.*)?)"
  } ],
  "total" : 1
}
```


**Status code: 400**

Invalid parameter.


```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```


**Status code: 500**

Internal server error.


```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```


## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Invalid parameter. |
| 403 | Authentication failed. |
| 500 | Internal server error. |

## Error Codes

See **Error Codes**.

# 3.5.3 Querying a Risk Rule Policy

## Function

This API is used to query a risk rule policy.

## URI

GET /v1/{project_id}/{instance_id}/dbss/audit/rule/risk

**Table 3-209** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |
| instance_id | Yes | String | Instance ID |

**Table 3-210** Query Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| name | No | String | Risk name |
| risk_levels | No | String | Risk level [LOW,MEDIUM,HIGH,NO_RISK] |

## Request Parameters

**Table 3-211** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| X-Auth-Token | Yes | String | User token |

## Response Parameters

**Status code: 200**

**Table 3-212** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| rules | Array of **rules** objects | List of risk rules |
| total | Integer | Total |

**Table 3-213** rules

| Parameter | Type | Description |
| --- | --- | --- |
| id | String | Risk rule ID |
| name | String | Risk rule name |
| type | String | Risk type [OPERATION, LOGIN] |
| feature | String | Risk characteristics<br>CLIENT[Any]OPERATE[LOGIN][REVOKE,DROP TABLE,SELECT FOR UPDATE,SELECT,ROLLBACK,CREATE TABLESPACE,DELETE,GRANT,DROP USER,DROP TABLESPACE,UPDATE,INSERT,CREATE USER,CREATE TABLE]OBJECT[Any] |
| status | String | Risk rule status[On,OFF] |
| rank | Integer | Risk rule priority [1~8] |
| risk_level | String | Risk level [No Risk,Low,Moderate,High] |

**Status code: 400**

**Table 3-214** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-215** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-216** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-217** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-218** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-219** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

/v1/{project_id}/{instance_id}/dbss/audit/rule/risk

## Example Responses

**Status code: 200**

Success

```
{
  "rules" : [ {
    "id" : "xX4W2ngBo47GiyUSBeOy",
    "name" : "Database_drag_detection",
    "type" : "OPERATE",
    "feature" : "CLIENT[Any]OPERATE[[SELECT]OBJECT[Any]",
    "status" : "ON",
    "rank" : 1,
    "risk_level" : "HIGH"
  }, {
    "id" : "xn4W2ngBo47GiyUSBeP4",
    "name" : "Database_Slow_SQL_Detection",
    "type" : "OPERATE",
    "feature" : "CLIENT[Any]OPERATE[[SELECT]OBJECT[Any]",
    "status" : "ON",
    "rank" : 2,
    "risk_level" : "LOW"
  } ],
  "total" : 2
}
```

**Status code: 400**

Invalid parameter.

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

**Status code: 500**

Internal server error.

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Invalid parameter. |
| 403 | Authentication failed. |
| 500 | Internal server error. |

## Error Codes

See **Error Codes**.

# 3.5.4 Querying a Specified Risk Rule Policy

## Function

This API is used to query a specified risk rule policy.

## URI

GET /v1/{project_id}/{instance_id}/dbss/audit/rule/risk/{risk_id}

**Table 3-220** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |
| instance_id | Yes | String | Instance ID |
| risk_id | Yes | String | Risk Rule ID |

## Request Parameters

**Table 3-221** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| X-Auth-Token | Yes | String | User token |

## Response Parameters

**Status code: 200**

**Table 3-222** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| rule_id | String | Risk rule ID |
| rule_name | String | Risk name |
| status | String | Risk rule status. Enumerated values: OFF ON |
| action | String | Operation set. Values are separated by commas (,). Allowed operations include: LOGIN CREATE_TABLE CREATE_TABLESPACE DROP_TABLE DROP_TABLESPACE DELETE INSERT INSERT_SELECT SELECT SELECT_FOR_UPDATE UPDATE CREATE_USER DROP_USER GRANT OPERATE ALL |
| schemas | Array of **schemas** objects | Schema list |
| rank | Integer | Risk rule priority |
| ignore_case | Boolean | Case insensitive or not |
| risk_level | String | Risk level Enumerated values: LOW MEDIUM HIGH NO_RISK |
| db_ids | String | Database ID. Values are separated by commas (,). A single ID can contain up to 256 characters. |
| execution_symbol | String | Relationship between the execution duration and the execution duration threshold Enumerated value: GREATER EQUAL LESS GREATER_EQUAL LESS_EQUAL NO_MATCH |
| execution_time | Integer | Execution duration threshold |

| Parameter | Type | Description |
| --- | --- | --- |
| affect_symbol | String | Relationship between the number of affected rows and the row quantity threshold: Enumerated value: GREATER EQUAL LESS GREATER_EQUAL LESS_EQUAL NO_MATCH |
| affect_rows | Integer | Threshold of affected rows |
| client_ips | String | Client IP address segment:The value is in the IP-IP format or IP/XX format. IP address segments are separated by commas (,). |

**Table 3-223** schemas

| Parameter | Type | Description |
| --- | --- | --- |
| schema | String | Schema name |
| table | String | Table |
| column | String | Column name |

**Status code: 400**

**Table 3-224** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-225** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-226** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-227** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-228** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-229** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

```
/v1/{project_id}/{instance_id}/dbss/audit/rule/risk/{risk_id}
```

## Example Responses

**Status code: 200**

Success

```
{
  "status" : "OFF",
  "action" : "LOGIN,SELECT,INSERT",
  "schemas" : [ {
    "schema" : "dbss_audit",
    "table" : null,
    "column" : null
  } ],
  "rank" : 6,
  "ignore_case" : false,
  "rule_id" : "AWT0HznX7At9UslqwTfm",
  "rule_name" : "risk_rule_name_00",
  "risk_level" : "MEDIUM",
  "db_ids" : "11111,22222",
  "execution_symbol" : "GREATER",
  "execution_time" : 10000,
  "affect_symbol" : "GREATER",
  "affect_rows" : 30,
  "client_ips" : "192.168.0.1"
}
```

**Status code: 400**

Invalid parameter.

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

**Status code: 500**

Internal server error.

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Invalid parameter. |
| 403 | Authentication failed. |
| 500 | Internal server error. |

## Error Codes

See **Error Codes**.

# 3.5.5 Querying a Privacy Data Masking Rule

## Function

This API is used to query a privacy data masking rule.

## URI

GET /v1/{project_id}/{instance_id}/dbss/audit/sensitive/masks

**Table 3-230** Path Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| project_id | Yes | String | Project ID |
| instance_id | Yes | String | Instance ID |

**Table 3-231** Query Parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| offset | No | String | Offset |
| limit | No | String | Number of query records |

## Request Parameters

**Table 3-232** Request header parameters

| Parameter | Mandatory | Type | Description |
| --- | --- | --- | --- |
| X-Auth-Token | Yes | String | User token |

## Response Parameters

**Status code: 200**

**Table 3-233** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| rules | Array of **rules** objects | Rule list |
| total | Integer | Total |

**Table 3-234** rules

| Parameter | Type | Description |
| --- | --- | --- |
| id | String | Rule ID |
| name | String | Rule name [default:GPS Information] |
| type | String | Rule type[default,User-defined] |
| regex | String | Rule regular expression |
| mask_value | String | Substitution value |
| status | String | Rule status[ON,OFF] |
| operate_time | String | Operation time |

**Status code: 400**

**Table 3-235** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-236** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 403**

**Table 3-237** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-238** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

**Status code: 500**

**Table 3-239** Response body parameters

| Parameter | Type | Description |
| --- | --- | --- |
| error | Object | Error message. |

**Table 3-240** ErrorDetail

| Parameter | Type | Description |
| --- | --- | --- |
| error_code | String | Error code. |
| error_msg | String | Error information. |

## Example Requests

/v1/{project_id}/{instance_id}/dbss/audit/sensitive/masks

## Example Responses

**Status code: 200**

Success

```
{
  "rules" : [ {
    "id" : "n34W2ngBo47GiyUSKOVl",
    "name" : "GPS Information",
    "type" : "BUILD_IN",
    "regex" : "-",
    "mask_value" : "###",
    "status" : "ON",
    "operate_time" : "2030-01-01 00:00:06"
  } ]
}
```

**Status code: 400**

Invalid parameter.

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

**Status code: 500**

Internal server error.

```
{
  "error" : {
    "error_code" : "DBSS.XXXX",
    "error_msg" : "XXX"
  }
}
```

## Status Codes

| Status Code | Description |
| --- | --- |
| 200 | Success |
| 400 | Invalid parameter. |
| 403 | Authentication failed. |
| 500 | Internal server error. |

## Error Codes

See **Error Codes**.

# 4 Appendix

## 4.1 Status Codes

- Normal

| Returned Value | Description |
| --- | --- |
| 200 | The request is successfully processed. |

- Abnormal

| Status Code | Error | Description |
| --- | --- | --- |
| 400 | Bad Request | The server fails to process the request. |
| 401 | Unauthorized | A username and a password are required. |
| 403 | Forbidden | Access to the requested page is denied. |
| 404 | Not Found | The server fails to find the requested page. |
| 405 | Method Not Allowed | Method specified in the request is not allowed. |
| 406 | Not Acceptable | The response generated by the server could not be received by the client. |
| 407 | Proxy Authentication Required | Proxy authentication is required before the request is processed. |
| 408 | Request Timeout | The request timed out. |
| 409 | Conflict | The request is not processed due to a conflict. |

| Status Code | Error | Description |
| --- | --- | --- |
| 500 | Internal Server Error | The request is not processed due to a server error. |
| 501 | Not Implemented | The request is not processed because the server does not support the requested function. |
| 502 | Bad Gateway | Failed to complete the request because the server has received an invalid response. |
| 503 | Service Unavailable | Failed to complete the request because the system is unavailable. |
| 504 | Gateway Timeout | A gateway timeout error occurs. |

# 4.2 Error Code

If an error code starting with **APIGW** is returned after you call an API, rectify the fault by referring to the instructions provided in **Error Codes**.

| Status Code | Error Code | Message | Description | Measure |
| --- | --- | --- | --- | --- |
| 400 | DBSS.10000001 | Enter a valid request message | The request is invalid. | Check parameters. |
| 400 | DBSS.10020101 | Enter a valid request message | Failed to obtain the specification list. | Check parameters. |
| 400 | DBSS.10020102 | Enter a valid request message | Perform operations on the database failed. | Check parameters. |
| 400 | DBSS.10020118 | Failed to add database, exceeding the limit | Failed to add the database. The number of databases exceeds the upper limit. | Delete unnecessary databases or buy a new instance. |
| 400 | DBSS.10020140 | Illegal order ID | The order ID does not meet requirements. | Check the order ID. |

| Status Code | Error Code | Message | Description | Measure |
| --- | --- | --- | --- | --- |
| 400 | DBSS.10021016 | Insufficient quota | Insufficient quota | Contact the administrator. |
| 400 | DBSS.10020021 | Invalid request parameter ID. | Invalid request ID parameter. | Check parameters. |
| 401 | DBSS.10020100 | Failed to authenticate the token in the request | Failed to authenticate the token carried in the request. | Check the token. |
| 404 | DBSS.10021004 | ECS can not found the request page | The ECS server fails to find the requested page. | Check the ECS path configuration. |
| 500 | DBSS.11000000 | Internal system exception. Contact technical support engineers | A system error occurs, please contact technical support engineers. | Contact the administrator. |

# 4.3 Obtaining a Project ID

## Obtaining a Project ID by Calling an API

You can obtain the project ID by calling the API for **Querying Project Information Based on Specified Criteria**.

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

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

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

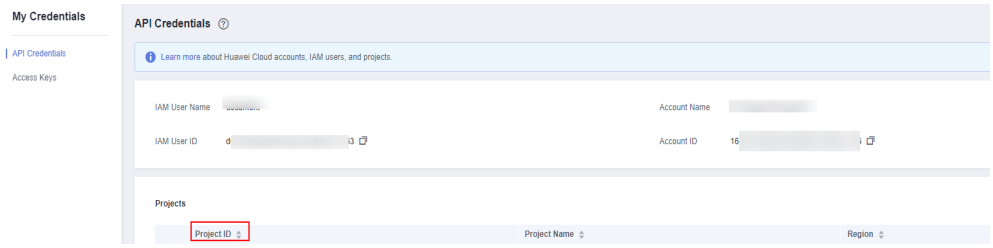
```
            "id": "a4a5d4098fb4474fa22cd05f897d6b99",
            "enabled": true
        }
    ],
    "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects"
    }
}
```


## Obtaining a Project ID from the Console

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

1. Log in to the management console.
2. Click the username and choose **My Credentials** from the drop-down list.
3. On the page, view the project ID in the project list.

**Figure 4-1** Viewing project IDs



# 5 Change History

| Released On | Description |
| --- | --- |
| 2024-07-30 | This issue is the third official release.<br>Added **Error Code**: DBSS.10020021. |
| 2024-04-10 | This is the second official issue.<br>Optimized:<br>Added the example request content in **Creating an Audit Instance in Yearly/Monthly Billing Mode**. |
| 2023-06-16 | This is the first official release. |