

# Enterprise Management

## API Reference

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# 1 Before You Start

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## 1.1 Overview

Welcome to Enterprise Project Management Service API Reference. Enterprise Project Management Service (EPS) provides a unified method to manage cloud resources and personnel by enterprise project.

This document describes how to use application programming interfaces (APIs) to perform operations on enterprise projects, such as querying, creating, and modifying enterprise projects. For details about all supported operations, see [API Overview](#).

If you plan to access enterprise projects through an API, ensure that you are familiar with EPS concepts. For details, see [Enterprise Management User Guide](#).

## 1.2 API Calling

TMS 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 endpoint of the EPS service, 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, which should not be used directly to perform routine management. For security purposes, create Identity and Access Management (IAM) users and grant them permissions for routine management.

- User

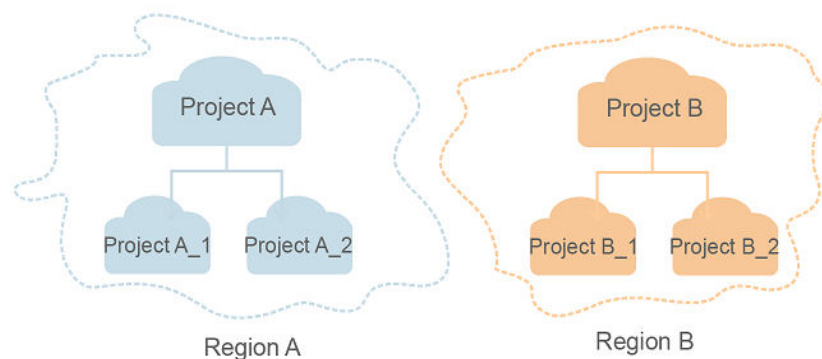
An IAM user is created by an account in IAM to use cloud services. Each IAM user has its own identity credentials (password and access keys).  
API authentication requires information such as the account name, username, and password.
- Region

A region is a geographic area in which cloud resources are deployed. Availability zones (AZs) in the same region can communicate with each other over an intranet, while AZs in different regions are isolated from each other. Deploying cloud resources in different regions can better suit certain user requirements or comply with local laws or regulations.
- AZ

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

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

**Figure 1-1** Project isolation model



- Enterprise project

Enterprise projects group and manage resources across regions. Resources in different enterprise projects are logically isolated. An enterprise project can contain resources of multiple regions, and resources can be added to or removed from enterprise projects.  
For details about enterprise projects and about how to obtain enterprise project IDs, see *Enterprise Management User Guide*.

# 2 API Overview

You can use EPS APIs to query enterprise project version information and manage enterprise projects.

**Table 2-1** API description

API	Description
<a href="#">Querying All API Versions</a>	Query all API versions of an enterprise project.
<a href="#">Querying Details About an API Version</a>	Query details about the API version of an enterprise project.
<a href="#">Querying the Enterprise Project List</a>	Query the list of enterprise projects authorized by the current user.
<a href="#">Creating an Enterprise Project</a>	Create enterprise projects and manage cloud resources by enterprise project.
<a href="#">Querying Details About a Specified Enterprise Project</a>	Query details about a specified enterprise project.
<a href="#">Modifying an Enterprise Project</a>	Modify an enterprise project.
<a href="#">Enabling or Disabling an Enterprise Project</a>	Enable or disable an existing enterprise project.



API	Description
<b>Querying Enterprise Project Quota</b>	Query the enterprise project quota.
<b>Querying Resources Added to an Enterprise Project</b>	Query resources added to an enterprise project.
<b>Migrating Resources</b>	Migrate resources to a target enterprise project.

# 3 Calling APIs

## 3.1 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.

**Table 3-1** URI parameter description

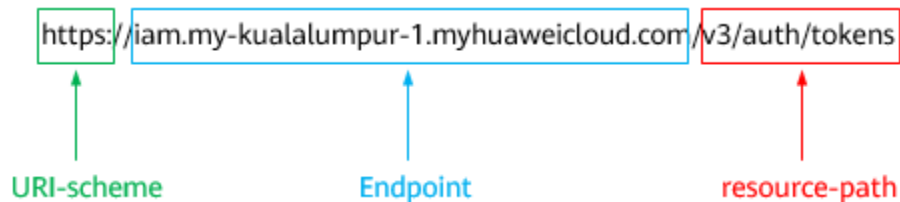
Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from <b>Regions and Endpoints</b> . For example, the endpoint of IAM in the <b>my-kualalumpur-1</b> region is <b>iam.my-kualalumpur-1.myhuaweicloud.com</b> .
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the <b>resource-path</b> of the API used to obtain a user token is <b>/v3/auth/tokens</b> .

Parameter	Description
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of <i>Parameter name=Parameter value</i> . For example, <b>?limit=10</b> indicates that a maximum of 10 data records will be displayed.

For example, to obtain an IAM token in the **AP-Kuala Lumpur-OP6** region, obtain the endpoint of IAM (**iam.my-kualalumpur-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.my-kualalumpur-1.myhuaweicloud.com/v3/auth/tokens
```

**Figure 3-1** 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.

**Table 3-2** HTTP methods

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

Method	Description
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.my-kualalumpur-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.

**Table 3-3** lists common request header fields.

**Table 3-3** Common request headers

Name	Description	Mandatory	Example
Host	Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of <i>Hostname:Port number</i> . If the port number is not specified, the default port is used. The default port number for HTTPS is 443.	No This field is mandatory for AK/SK authentication.	code.test.com or code.test.com:443

Name	Description	Mandatory	Example
Content-Type	Specifies the request body MIME type. You are advised to use the default value <b>application/json</b> . For APIs used to upload objects or images, the value can vary depending on the flow type.	Yes	application/json
Content-Length	Specifies the length of the request body. The unit is byte.	No	3495
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in <a href="#">Obtaining a Project ID</a> .	No	e9993fc787d94b6c886cb aa340f9c0f4

 **NOTE**

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

POST <https://iam.my-kualalumpur-1.myhuaweicloud.com/v3/auth/tokens>  
Content-Type: application/json

### (Optional) Request Body

This part is optional. The body of a request is often sent in a structured format (for example, JSON or XML) as specified in the **Content-Type** header field. 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. Replace *username*, *domainname*, *\$ADMIN\_PASS* (login password), and *xxxxxxxxxxxxxxxxxxxx* (project name) with the actual values. Obtain a project name from [Regions and Endpoints](#).

 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.my-kualalumpur-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json

{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "$ADMIN_PASS", //You are advised to store it in ciphertext in the
configuration file or an environment variable and decrypt it when needed to ensure security.
          "domain": {
            "name": "domainname"
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxxxxxxxxxxxxxxx"
      }
    }
  }
}
```

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

## 3.2 Authentication

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

- Token authentication: Requests are authenticated using tokens.
- AK/SK authentication: Requests are encrypted using AK/SK pairs. AK/SK authentication is recommended because it is more secure than token authentication.

### Token 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. You can obtain a token by calling the [Obtaining User Token](#) API.

A cloud service can be deployed as either a project-level service or global service.

- For a project-level service, you need to obtain a project-level token. When you call the API, set **auth.scope** in the request body to **project**.
- For a global service, you need to obtain a global token. When you call the API, set **auth.scope** in the request body to **domain**.

EPS is a global service. When you call the API, set **auth.scope** in the request body to **domain**. For details about how to obtain the user token, see [Obtaining a User Token](#).

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username", // IAM user name
          "password": "*****", // IAM user password
          "domain": {
            "name": "domainname" // Name of an IAM account
          }
        }
      }
    },
    "scope": {
      "domain": {
        "name": "xxxxxxx" // Tenant name
      }
    }
  }
}
```

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.my-kualalumpur-1.myhuaweicloud.com/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

## AK/SK Authentication

### NOTE

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

In AK/SK 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, which is 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 authentication, you can use an AK/SK to sign requests based on the signature algorithm or using the signing SDK. For details about how to sign requests and use the signing SDK, see [API Request Signing Guide](#).

 NOTE

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

## 3.3 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 Code](#).

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

### Response Header

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

[Figure 3-2](#) shows the response header fields for the API used to [obtain a user token](#). The **X-Subject-Token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

 NOTE

For security purposes, you are advised to set the token in ciphertext in configuration files or environment variables and decrypt it when using it.

**Figure 3-2** Header fields of the response to the request for obtaining a user token

```
connection → keep-alive
content-type → application/json
date → Tue, 12 Feb 2019 06:52:13 GMT
server → Web Server
strict-transport-security → max-age=31536000; includeSubdomains;
transfer-encoding → chunked
via → proxy A
x-content-type-options → nosniff
x-download-options → noopen
x-frame-options → SAMEORIGIN
x-iam-trace-id → 218d45ab-d674-4995-af3a-2d0255ba41b5
x-subject-token → [REDACTED]
x-xss-protection → 1; mode=block;
```



## (Optional) Response Body

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

The following is part of the response body for the API used to [obtain a user token](#).

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

```

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

```
{
  "error_msg": "The request message format is invalid.",
  "error_code": "IMG.0001"
}
```

In the response body, **error\_code** is an error code, and **error\_msg** provides information about the error.

# 4 Getting Started

---

This section describes how to create an enterprise project by invoking the API of EPS.

 **NOTE**

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

## Involved APIs

To use token authentication, you need to obtain a token and add **X-Auth-Token** to the request header of API calls.

- API for obtaining tokens from IAM
- API for creating an enterprise project

## Procedure

1. Obtain the token. For details, see [Authentication](#).
2. Send POST `https://EPS Endpoint/v1.0/enterprise-projects`.  
Add **Content-Type** and **X-Auth-Token** to the request header.

Specify the following parameters in the request body:

```
{
  "name": "enterprise_project1",
  "description": "description"
}
```

If the request is responded, **enterprise\_project** is returned.

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

 **NOTE**

For details about the elements and return values of response messages, see section [Creating an Enterprise Projects](#).

# 5 Enterprise Project Management APIs

## 5.1 Querying Version Information

### 5.1.1 Querying All API Versions

#### Function

This API is used to query the versions of EPS APIs.

#### URI

GET /

#### Request

Example request

```
GET https://{EPS endpoint}/
```

#### NOTE

You can obtain the EPS service endpoint at [Regions and Endpoints](#).

Before calling an EPS API, you must obtain the domain-level token. For details, see [Obtaining the Domain-Level Token](#).

#### Response

- Parameter description

**Table 5-1** Parameter in the response

Name	Type	Description
versions	Array	Specifies the list of all versions. For details, see <a href="#">Table 5-2</a> .

- **versions** field data structure

**Table 5-2** versions field data structure

Name	Type	Description
id	String	Specifies the version ID, for example, v1.0.
links	List<Link>	Specifies the API URL. For details, see <a href="#">Table 5-3</a> .
version	String	Specifies the microversion. If the API version supports microversions, the maximum microversion supported is returned. If microversions are not supported, this field is left empty.
status	String	Specifies the version status. The options are as follows: <ul style="list-style-type: none"><li>• <b>CURRENT</b>: indicates a primary version.</li><li>• <b>SUPPORTED</b>: indicates an old version that is still supported.</li><li>• <b>DEPRECATED</b>: indicates a deprecated version that may be deleted later.</li></ul>
updated	String	Specifies the version release time, which is a UTC time. For example, the release time of v1.0 is 2016-12-09T00:00:00Z.
min_version	String	Specifies the microversion. If the API version supports microversions, the system returns the supported minimum microversion. If microversions are not supported, the system returns an empty value.

- **Link** field data structure

**Table 5-3** Link field data structure

Name	Type	Description
href	String	Specifies the API URL.
rel	String	self

- Example response

```
{  
  "versions": [  
    {  
      "id": "v1.0",  
      "links": [  
        {  
          "href": "https://api.huaweicloud.com/v1.0",  
          "rel": "self"  
        }  
      ],  
      "version": "v1.0",  
      "status": "CURRENT",  
      "updated": "2016-12-09T00:00:00Z",  
      "min_version": "v1.0"  
    }  
  ]  
}
```

```
{
  "id": "v1.0",
  "links": [
    {
      "rel": "self",
      "href": "https://API URL/v1.0"
    }
  ],
  "version": "",
  "status": "CURRENT",
  "updated": "2016-12-09T00:00:00Z",
  "min_version": ""
}
```

## Status Codes

For details, see [Status Code](#).

## Error Codes

For details, see [Error Codes](#).

## 5.1.2 Querying Details About an API Version

### Function

This API is used to query details about an API version.

### URI

GET `/{api_version}`

### Request

- Parameter description

**Table 5-4** Parameter in the request

Name	Mandatory	Type	Description
api_version	Yes	String	Specifies the version ID, for example, v1.0.

- Example request  
GET `https://{EPS endpoint}/v1.0`

### Response

- Parameter description

**Table 5-5** Parameter in the response

Name	Type	Description
version	Object	Specifies the version details. For details, see <a href="#">Table 5-6</a> .

- **versions** field data structure

**Table 5-6** versions field data structure description

Name	Type	Description
id	String	Specifies the version ID, for example, v1.0.
links	List<Link>	Specifies the API URL. For details, see <a href="#">Table 5-7</a> .
version	String	Specifies the microversion. If APIs of a version support microversions, the maximum microversion supported is returned. If microversions are not supported, this field is left empty.
status	String	Specifies the version status. The options are as follows: <ul style="list-style-type: none"><li>• <b>CURRENT</b>: indicates a primary version.</li><li>• <b>SUPPORTED</b>: indicates an old version that is still supported.</li><li>• <b>DEPRECATED</b>: indicates a deprecated version that may be deleted later.</li></ul>
updated	String	Specifies the version release time, which is a UTC time. For example, the release time of v1.0 is 2016-12-09T00:00:00Z.
min_version	String	Specifies the microversion. If APIs of a version support microversions, the minimum microversion supported is returned. If microversions are not supported, this field is left empty.

- **Link** field data structure

**Table 5-7** Link field data structure

Name	Type	Description
href	String	Specifies the API URL.

Name	Type	Description
rel	String	self

- Example response

```
{
  "version": {
    "id": "v1.0",
    "links": [
      {
        "rel": "self",
        "href": "https://API_URL/v1.0"
      }
    ],
    "version": "",
    "status": "CURRENT",
    "updated": "2016-12-09T00:00:00Z",
    "min_version": ""
  }
}
```

## Status Codes

For details, see [Status Code](#).

## Error Codes

For details, see [Error Codes](#).

# 5.2 Enterprise Project Management

## 5.2.1 Querying the Enterprise Project List

### Function

This API is used to query the list of enterprise projects that can be managed by a user. The user can add resources to an enterprise project in the list.

### URI

GET /v1.0/enterprise-projects

### Request

- Parameter description

**Table 5-8** Parameters in the request

Name	Mandatory	Type	Location	Description
id	No	String	query	Specifies the ID of an enterprise project. The value <b>0</b> indicates enterprise project <b>default</b> .
limit	No	Integer	query	Specifies the number of records to be queried. The default value is <b>1000</b> . The maximum value is <b>1000</b> , and the minimum value is <b>1</b> .
name	No	String	query	Specifies the enterprise project name. Fuzzy search is supported.
offset	No	Integer	query	Specifies the index position, which starts from the next data record specified by <b>offset</b> . The value must be a number and cannot be a negative number. The default value is <b>0</b> .
sort_dir	No	String	query	Specifies the result sorting order. The default value is <b>desc</b> . <ul style="list-style-type: none"><li>• <b>desc</b>: Results are sorted in descending order.</li><li>• <b>asc</b>: Results are sorted in ascending order.</li></ul>
sort_key	No	String	query	Specifies the keyword by which the results to return are sorted. Keywords such as <b>updated_at</b> are supported. By default, the keyword <b>created_at</b> is used.
status	No	Integer	query	Specifies the enterprise project status. <ul style="list-style-type: none"><li>• <b>1</b>: The enterprise project is enabled.</li><li>• <b>2</b>: The enterprise project is disabled.</li></ul>



- Example request  
GET `https://{EPS endpoint}/v1.0/enterprise-projects?name=prise_pro`

## Response

- Parameter description

**Table 5-9** Parameters in the response

Name	Type	Description
enterprise_projects	List<enterprise_project>	Specifies the enterprise project list. For details, see <a href="#">Table 5-10</a> .
total_count	Integer	Specifies the total number of enterprise projects that meet the query conditions.

- **enterprise\_project** field data structure

**Table 5-10** enterprise\_project field data structure description

Name	Type	Description
id	String	Specifies the enterprise project ID.
name	String	Specifies the enterprise project name.
description	String	Specifies the description of the enterprise project.
status	Integer	Specifies the enterprise project status. <ul style="list-style-type: none"><li>• <b>1</b>: The enterprise project is enabled.</li><li>• <b>2</b>: The enterprise project is disabled.</li></ul>
created_at	String	Specifies the time (UTC) when the enterprise project was created. Example: 2018-05-18T06:49:06Z
updated_at	String	Specifies the time (UTC) when the enterprise project was modified. Example: 2018-05-28T02:21:36Z

- Example response

```
{
  "enterprise_projects": [
    {
      "id": "6fbcf2f3-3164-4d32-9a3e-a8886dc38c24",
      "name": "auto_test",
      "description": "hello world!",

      "status": 1,
      "created_at": "2018-05-18T06:49:06Z",
      "updated_at": "2018-05-28T02:21:36Z"
    }
  ],
  "total_count": 1
}
```

## Status Codes

For details, see [Status Code](#).

## Error Codes

For details, see [Error Codes](#).

## 5.2.2 Creating an Enterprise Project

### Function

This API is used to create an enterprise project.

### URI

POST /v1.0/enterprise-projects

### Request

- Parameter description

**Table 5-11** Parameters in the request

Name	Mandator y	Type	Description
name	Yes	String	A name can contain 1 to 255 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. The name must be unique in the domain and cannot include any form of the word "default" .

Name	Mandator y	Type	Description
description	No	String	A description can contain a maximum of 512 characters.

- Example request  
POST https://{EPS endpoint}/v1.0/enterprise-projects  
{  
  "name":"enterprise\_project1",  
  "description": "description"  
}

## Response

- Parameter description

**Table 5-12** Parameter in the response

Name	Type	Description
enterprise_project	Dict<enterprise_proje ct>	Specifies the enterprise project. For details, see <a href="#">Table 5-13</a> .

- **enterprise\_project** data structure

**Table 5-13** enterprise\_project data structure description

Name	Type	Description
id	String	Specifies the enterprise project ID.
name	String	Specifies the enterprise project name.
description	String	Provides supplementary information about the enterprise project.
status	Integer	<b>1</b> indicates <b>Enabled</b> . <b>2</b> indicates <b>Disabled</b> .
created_at	String	Specifies the time (UTC) when the enterprise project was created. Example: 2018-05-18T06:49:06Z

Name	Type	Description
updated_at	String	Specifies the time (UTC) when the enterprise project was modified.  Example: 2018-05-18T06:49:06Z

- Example response

```
{
  "enterprise_project": {
    "id": "5aa119a8-d25b-45a7-8d1b-88e127885635",
    "name": "enterprise_project1",
    "description": "description",

    "status": 1,
    "created_at": "2016-03-28T00:00:00Z",
    "updated_at": "2016-03-28T00:00:00Z"
  }
}
```

## Status Codes

For details, see [Status Code](#).

## Error Codes

For details, see [Error Codes](#).

## 5.2.3 Querying Details About a Specified Enterprise Project

### Function

This API is used to query details about a specified enterprise project.

### URI

GET /v1.0/enterprise-projects/{enterprise\_project\_id}

For detailed about the parameters, see [Table 5-14](#).

**Table 5-14** Parameter in the URI

Name	Mandatory	Type	Description
enterprise_project_id	Yes	String	Specifies the enterprise project ID.  You can obtain the ID by using API <a href="#">Querying the Enterprise Project List</a> .

## Request

- Example request  
GET https://{EPS endpoint}/v1.0/enterprise-projects/5aa119a8-d25b-45a7-8d1b-88e127885635

## Response

- Parameter description

**Table 5-15** Parameter in the response

Name	Type	Description
enterprise_project	Dict<enterprise_project>	Specifies the enterprise project. For details, see <a href="#">Table 5-16</a> .

- **enterprise\_project** field data structure

**Table 5-16** enterprise\_project field data structure description

Name	Type	Description
id	String	Specifies the enterprise project ID.
name	String	Specifies the enterprise project name.
description	String	Provides supplementary information about the enterprise project.
status	Integer	<b>1</b> indicates <b>Enabled</b> . <b>2</b> indicates <b>Disabled</b> .
created_at	String	Specifies the time (UTC) when the enterprise project was created. Example: 2018-05-18T06:49:06Z
updated_at	String	Specifies the time (UTC) when the enterprise project was modified. Example: 2018-05-18T06:49:06Z

- Example response

```
{
  "enterprise_project": {
    "id": "5aa119a8-d25b-45a7-8d1b-88e127885635",
    "name": "enterprise_project1",
    "description": "description",

    "status": 1,
    "created_at": "2016-03-28T00:00:00Z",
    "updated_at": "2016-03-28T00:00:00Z"
  }
}
```

## Status Codes

For details, see [Status Code](#).

## Error Codes

For details, see [Error Codes](#).

## 5.2.4 Modifying an Enterprise Project

### Function

This API is used to modify an enterprise project. Only the enterprise project name and description can be modified.

### URI

PUT /v1.0/enterprise-projects/{enterprise\_project\_id}

For detailed about the parameters, see [Table 5-17](#).

**Table 5-17** Parameter in the URI

Name	Mandatory	Type	Description
enterprise_project_id	Yes	String	Specifies the enterprise project ID. The enterprise project whose ID is <b>0</b> cannot be modified.  You can obtain the ID by using API <a href="#">Querying the Enterprise Project List</a> .

### Request

- Parameter description

**Table 5-18** Parameters in the request

Name	Mandatory	Type	Description
name	Yes	String	A name can contain 1 to 255 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. The name must be unique in the domain and cannot include any form of the word "default".
description	No	String	A description can contain a maximum of 512 characters.
type	No	String	Specifies the enterprise project type.

- Example request

```
PUT https://{EPS endpoint}/v1.0/enterprise-projects/{enterprise_project_id}
{
  "name": "enterprise_project1",
  "description": "description"
}
```

## Response

- Parameter description

**Table 5-19** Parameter in the response

Name	Type	Description
enterprise_project	Dict<enterprise_project>	Specifies the enterprise project. For details, see <a href="#">Table 5-20</a> .

- **enterprise\_project** data structure

**Table 5-20** enterprise\_project data structure description

Name	Type	Description
id	String	Specifies the enterprise project ID.
name	String	Specifies the enterprise project name.
description	String	Provides supplementary information about the enterprise project.

Name	Type	Description
status	Integer	<b>1</b> indicates <b>Enabled</b> . <b>2</b> indicates <b>Disabled</b> .
created_at	String	Specifies the time (UTC) when the enterprise project was created. Example: 2018-05-18T06:49:06Z
updated_at	String	Specifies the time (UTC) when the enterprise project was modified. Example: 2018-05-18T06:49:06Z

- Example response

```
{
  "enterprise_project": {
    "id": "5aa119a8-d25b-45a7-8d1b-88e127885635",
    "name": "enterprise_project1",
    "description": "description",

    "status": 1,
    "created_at": "2016-03-28T00:00:00Z",
    "updated_at": "2016-03-28T00:00:00Z"
  }
}
```

## Status Codes

For details, see [Status Code](#).

## Error Codes

For details, see [Error Codes](#).

## 5.2.5 Enabling or Disabling an Enterprise Project

### Function

This API is used to enable or disable an enterprise project.

### URI

POST /v1.0/enterprise-projects/{enterprise\_project\_id}/action

For detailed about the parameters, see [Table 5-21](#).



**Table 5-21** Parameter in the URI

Name	Mandatory	Type	Description
enterprise_project_id	Yes	String	Specifies the enterprise project ID. The enterprise project whose ID is <b>0</b> cannot be modified. You can obtain the ID by using API <a href="#">Querying the Enterprise Project List</a> .

## Request

- Parameter description

**Table 5-22** Parameter in the request

Name	Mandatory	Type	Description
action	Yes	String	<b>enable:</b> Enable an enterprise project. <b>disable:</b> Disable an enterprise project.

- Example request  
POST https://{EPS endpoint}/v1.0/enterprise-projects/{enterprise\_project\_id}/action  
{  
  "action": "enable"  
}

## Response

None

## Status Codes

For details, see [Status Code](#).

## Error Codes

For details, see [Error Codes](#).

## 5.2.6 Querying Enterprise Project Quota

### Function

This API is used to query the enterprise project quota.

### URI

GET /v1.0/enterprise-projects/quotas

## Request

Example request

```
GET https://{EPS endpoint}/v1.0/enterprise-projects/quotas
```

## Response

- Parameter description

**Table 5-23** Parameter in the response

Name	Type	Description
quotas	Dict<quotas>	Quota For details, see <a href="#">Table 5-24</a> .

- quotas** field data structure

**Table 5-24** **quotas** field data structure description

Name	Type	Description
resources	List<resource>	Specifies the resource quota of EPS. For details, see <a href="#">Table 5-25</a> .

- resource** field data structure

**Table 5-25** **resource** field data structure description

Name	Type	Description
type	String	Specifies the resource type. Currently, it refers to <b>enterprise_project</b> .
used	int	Specifies the number of used quotas.
quota	int	Specifies the total amount of the quota.

- Example response

```
{
  "quotas": {
    "resources": [
      {
        "type": "enterprise_project",
        "used": 3,
        "quota": 100
      }
    ]
  }
}
```

## Status Codes

For details, see [Status Code](#).

## Error Codes

For details, see [Error Codes](#).

## 5.2.7 Querying Resources Added to an Enterprise Project

### Function

This API is used to query details about resources added to an enterprise project.

### URI

POST /v1.0/enterprise-projects/{enterprise\_project\_id}/resources/filter

For detailed about the parameters, see [Table 5-26](#).

**Table 5-26** Parameter in the URI

Name	Mandatory	Type	Description
enterprise_project_id	Yes	String	Specifies the enterprise project ID. You can obtain the ID by using API <a href="#">Querying the Enterprise Project List</a> .

### Request

- Parameter description

**Table 5-27** Parameters in the request

Name	Mandatory	Type	Description
limit	No	Integer	Specifies the number of records to be queried. The default value is <b>1000</b> . The maximum value is <b>1000</b> , and the minimum value is <b>1</b> .
offset	No	Integer	Specifies the index position, which starts from the next data record specified by <b>offset</b> . The value must be a number and cannot be a negative number. The default value is <b>0</b> .

Name	Mandatory	Type	Description
projects	No	List<String>	Specifies the project IDs. You can obtain the project IDs from <a href="#">Obtaining a Project ID</a> . This parameter can be ignored when the transferred resource is a global resource, such as <b>cdn</b> . This parameter is mandatory when the transferred resource type is a region-specific resource type, such as ECS and EVS disk.
resource_types	Yes	List<String>	Specifies the resource type list. The value of this parameter is case-sensitive. For example, <b>ecs</b> , <b>scaling_group</b> , <b>images</b> , <b>disk</b> , <b>vpcs</b> , <b>security-groups</b> , <b>shared_bandwidth</b> , <b>cdn</b> , and <b>eip</b> . For details, see <a href="#">Resource Types Supported by EPS</a> .
matches	No	List<match>	Specifies the search field. <b>Key</b> indicates the field to be matched and is fixed at <b>resource_name</b> . <b>Value</b> indicates the value to be matched. If this field is not transferred, no matching condition will be used. For details, see <a href="#">Table 5-28</a> .

- **Match** field data structure

**Table 5-28** Match field data structure description

Name	Mandatory	Type	Description
key	Yes	String	Specifies the key. If the <b>matches</b> parameter exists, this parameter is mandatory and is fixed at <b>resource_name</b> .
value	Yes	String	Specifies the value. The value is the resource name. If the <b>matches</b> parameter is available, this parameter is mandatory and fuzzy search is used by default, for example, message.com. Enter a maximum of 255 characters.

- Example request

```
POST https://{EPS endpoint}/v1.0/enterprise-projects/{enterprise_project_id}/resources/filter
{
  "projects": [
    "e1eb7c40cbea4c8389cde527594a306d",
    "2345d321da864d6faf2e762647e19f96"
  ],
  "resource_types": [
    "disk"
  ],
  "offset": 0,
  "limit": 10,
  "matches": [
    {
      "key": "resource_name",
      "value": "lhj"
    }
  ]
}
```

## Response

- Parameter description

**Table 5-29** Parameters in the response

Name	Type	Description
resources	List<resource>	Specifies the resource list. For details, see <a href="#">Table 5-30</a> .
errors	List<error>	Specifies the error list. For details, see <a href="#">Table 5-31</a> .
total_count	Integer	Specifies the total number of returned records meeting the requirements.

- **Resource** field data structure

**Table 5-30** Resource field data structure description

Name	Type	Description
project_id	String	Specifies the project ID.
project_name	String	Specifies the enterprise project name.

Name	Type	Description
resource_type	String	Specifies the resource type. For details, see <a href="#">Resource Types Supported by EPS</a> .
resource_id	String	Specifies the resource ID.
resource_name	String	Specifies the resource name.
resource_detail	Object	Specifies the resource details.
enterprise_project_id	String	Specifies the enterprise project ID.

- **Error field data structure**

**Table 5-31** Error field data structure description

Name	Type	Description
project_id	String	Specifies the project ID.
resource_type	String	Specifies the resource type. For details, see <a href="#">Resource Types Supported by EPS</a> .
error_code	String	Specifies the error code.
error_msg	String	Specifies the error message.

- **Example response**

```
{
  "resources": [
    {
      "project_id": "e1eb7c40cbea4c8389cde527594a306d",
      "project_name": "XXXX", //Project name
      "resource_type": "disk",
      "resource_id": "b621f5ae-b5c1-49d7-a660-752c445434b4",
      "resource_name": "lhj1-volume-0001",
      "resource_detail": null,
      "enterprise_project_id": "0"
    },
    {
      "project_id": "e1eb7c40cbea4c8389cde527594a306d",
      "project_name": "XXXX", //Project name
      "resource_type": "disk",
```

```
"resource_id": "87c9edc9-f66c-48b8-a22f-372b2e22d579",
"resource_name": "lhj2-volume-0002",
"resource_detail": null,
"enterprise_project_id": "0"
}
],
"errors": [],
"total_count": 2
}
```

## Status Codes

For details, see [Status Code](#).

## Error Codes

For details, see [Error Codes](#).

## 5.2.8 Migrating Resources

### Function

This API is used to migrate resources to a target enterprise project.

### URI

POST /v1.0/enterprise-projects/{enterprise\_project\_id}/resources-migrate

For detailed about the parameters, see [Table 5-32](#).

**Table 5-32** Parameter in the URI

Name	Mandatory	Type	Description
enterprise_project_id	Yes	String	Specifies the ID of the target enterprise project. You can obtain the ID by using API <a href="#">Querying the Enterprise Project List</a> . If the value of <b>enterprise_project_id</b> is <b>0</b> , resources are migrated to enterprise project <b>default</b> .

### Request

- Parameter description

**Table 5-33** Parameters in the request

Name	Mandatory	Type	Description
project_id	No	string	Specifies the project ID. This parameter is mandatory when <b>resource_type</b> is set to a region-level resource. You can obtain the project ID from <a href="#">Obtaining a Project ID</a> .
resource_type	Yes	string	Specifies the resource type. For details, see <a href="#">Resource Types Supported by EPS</a> .
resource_id	Yes	string	Specifies the resource ID. For details, see <a href="#">Resource Types Supported by EPS</a> .
associated	No	boolean	Specifies whether associated resources are migrated. The default value is <b>false</b> . Currently, only ECS associated EVS disks and EIPs can be migrated.

- Example request

```
POST https://{EPS endpoint}/v1.0/enterprise-projects/{enterprise_project_id}/resources-migrate
{
  "project_id": "0f02faab61ab497997867b2c9ef193a2",
  "associated": false,
  "resource_type": "eip",
  "resource_id": "e220166e-a6b1-4bb4-9abf-950b367212e8"
}
```

## Status Codes

For details, see [Status Code](#).

## Error Codes

For details, see [Error Codes](#).

# 5.3 Querying Supported Services

## 5.3.1 Querying Supported Services

### Function

You can use this API to query services supported by EPS.



## URI

GET /v1.0/enterprise-projects/providers

**Table 5-34** Query parameters

Parameter	Mandatory	Type	Description
locale	No	String	Specifies the language. Default value: <b>zh-cn</b>
limit	No	Integer	Default value: 10, upper limit: 200, lower limit: 1.
offset	No	Integer	Specifies the index position. The query starts from the next data record specified by offset. The value must be a number and cannot be a negative number. The default value is <b>0</b> .
provider	No	String	Cloud service name

## Request parameters

**Table 5-35** Header

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. EPS is a global service. When calling the IAM API, set <b>scope</b> to <b>domain</b> . The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response parameters

Status code: 200

**Table 5-36** Body

Parameter	Type	Description
providers	Array of <b>ProviderResponseBody</b> objects	Specifies cloud services.
total_count	Integer	Specifies the total cloud services supported.

**Table 5-37** ProviderResponseBody

Parameter	Type	Description
provider	String	Cloud service name
provider_i18n_display_name	String	Specifies the display name of the resource. You can set the language by setting the <b>locale</b> parameter.
resource_types	Array of <b>ResourceTypeBody</b> objects	Specifies the resource type.

**Table 5-38** ResourceTypeBody

Parameter	Type	Description
resource_type	String	Specifies the resource type.
resource_type_i18n_display_name	String	Specifies the display name of the resource type. You can set the language by setting the <b>locale</b> parameter.
regions	Array of strings	Specifies the supported regions.
global	Boolean	Specifies whether the resource is a global resource.

## Example Request

Querying supported services

```
GET https://{Endpoint}/v1.0/enterprise-projects/providers
```

## Example Response

**Status code: 200**

OK

```
{
  "providers": [ {
    "provider": "evs",
    "provider_i18n_display_name": "Elastic Volume Service",
    "resource_types": {
      "resource_type_i18n_display_name": "volume",
      "global": false,
      "resource_type": "disk",
      "regions": [ "regionid1" ]
    }
  } ],
  "total_count": 1
}
```

## Status Code

For details, see [Status Code](#).

## Error Codes

For details, see [Error Codes](#).

# 6 Permissions Policies and Supported Actions

---

## 6.1 Introduction

You can use IAM to perform refined permission management for your enterprise projects. If your account does not need individual IAM users, you can skip this chapter.

A policy is a set of permissions defined in JSON format. By default, new IAM users do not have permissions assigned. You need to add a user to one or more groups, and attach permissions policies or roles to these groups. Users inherit permissions from the groups to which they are added and can perform specified operations on cloud services based on the permissions.

An account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions. The permissions required for calling an API are determined by the actions supported by the API. Only users who have been granted permissions allowing the actions can call the API successfully.

### Supported Actions

Operations supported by fine-grained policies are specific to APIs. The following are common concepts related to policies:

- **Permissions:** Statements in a policy that allow or deny certain operations.
- **APIs:** REST APIs that can be called by a user who has been granted specific permissions.
- **Actions:** Specific operations that are allowed or denied.
- **Related actions:** Actions on which a specific action depends to take effect. When assigning permissions for the action to a user, you also need to assign permissions for the related actions.
- **IAM or enterprise projects:** Type of projects for which an action will take effect. Policies that contain actions for both IAM and enterprise projects can be used and take effect for both IAM and Enterprise Management. Policies that only contain actions for IAM projects can be used and only take effect for IAM.

 **NOTE**

The check mark (√) and cross symbol (x) indicate that an action takes effect or does not take effect for the corresponding type of projects.

## 6.2 Enterprise Project Management API Permissions

**Table 6-1** Supported Actions

Permission	API	Action	IA M Pr oj ec t (P ro j ec t)	Enterpr ise Pr oj ec t (Enter prise Pr oj ec t)
Querying the enterprise project list	GET /v1.0/enterprise-projects	eps:enterpriseProjects:list	√	√
Creating an enterprise project	POST /v1.0/enterprise-projects	eps:enterpriseProjects:create	√	√
Querying enterprise project details	GET /v1.0/enterprise-projects/{enterprise_project_id}	eps:enterpriseProjects:get	√	√
Modifying an enterprise project	PUT /v1.0/enterprise-projects/{enterprise_project_id}	eps:enterpriseProjects:update	√	√

Permi ssion	API	Action	IA M Pr oj ec t (P ro j ec t)	Enterpr ise Project (Enter prise Project )
Enabli ng or disabl ing an enter prise projec t	POST /v1.0/enterprise-projects/ {enterprise_project_id}/action	<ul style="list-style-type: none"> <li>• Enable: eps:enterpriseP rojects:enable</li> <li>• Disable: eps:enterpriseP rojects:disable</li> </ul>	√	√
Search ing for resour ces	POST /v1.0/enterprise-projects/ {enterprise_project_id}/resources/ filter	eps:resources:list	√	√
Addin g resour ces to or remov ing resour ces from an enter prise projec t	POST /v1.0/enterprise-projects/ {enterprise_project_id}/resources- migrate	<ul style="list-style-type: none"> <li>• Add: eps:resources:a dd</li> <li>• Remove: eps:resources:r emove</li> </ul>	√ √	√ √

# A Appendix

## A.1 Resource Types Supported by EPS

**Table A-1** lists part of services and resources supported by enterprise projects. To view all supported services and resources, call the API, [Querying Supported Services](#).

The involved parameters are as follows:

- **resource\_types**: indicates the resource type list.
- **resource\_type**: indicates the resource type.
- **resource\_id**: indicates the resource ID.

**Table A-1** Some of the services and resources supported

Service	Resource Type	resource_type/ resource_types	resource_id
ECS	ECS	ecs	ECS ID on the ECS console
AS	AS group	scaling_group	AS group ID on the AS console
IMS	Private image	images	Image ID on the IMS console
EVS	Disk	disk	Disk ID on the EVS console
VPC	VPC	vpcs	VPC ID on the VPC details page of the VPC console
	Security group	security-groups	Security group ID on the security group details page
Bandwidth	Shared bandwidth	shared_bandwidth	Bandwidth ID on the shared bandwidth details page

Service	Resource Type	resource_type/ resource_types	resource_id
EIP	EIP	eip	EIP ID on the <b>Basic Information</b> page of EIPs
RDS	Instance	rds	Instance ID on the RDS console
DCS	Instance	dc	Instance ID on the DCS console
DDS	Instance	dds	Instance ID on the DDS console
CCE	Cluster	cce-cluster	Cluster ID on the CCE console
DeH	Dedicated host	dedicated-host-tags	Dedicated host ID on the DeH console
APM	Application	apm	Application ID
DNS	Public zone	DNS_public_zone	Public zone ID
	Private zone	DNS_private_zone	Private zone ID
	PTR record	DNS_ptr_record	PTR record ID
CBR	Vault	vault	Vault ID
CSE	Engine	cse-engine	Instance ID on the CSE console
BMS	BMS	bms_server	BMS ID on the BMS console
DDM	Instance	ddm	Instance ID on the DDM console
CSS	Cluster	css-cluster	Cluster ID on the CSS console
DWS	Cluster	dws_clusters	Cluster ID on the DWS console
MRS	Cluster	clusters	Cluster ID on the MRS console
SFS	File system	sfs	File System ID on the SFS console
	sfs-turbo	sfs-turbo	ID of an SFS Turbo file system on the SFS console
ELB	Load balancer	loadbalancers	ID on the load balancer <b>Basic Information</b> page of the ELB console



Service	Resource Type	resource_type/ resource_types	resource_id
OBS	Bucket	bucket	Bucket name on the OBS console
NAT Gateway	Public NAT gateway	nat_gateways	NAT gateway ID on the NAT Gateway console
DMS	Kafka instance	kafka	Kafka instance ID on the DMS console
	RabbitMQ instance	rabbitmq	RabbitMQ instance ID on the DMS console
API Gateway	Instance	apig	Instance ID
KMS	Key	kms	key ID
DRS	Real-time disaster recovery task	cloudDataGuard	Task ID on the DRS console
	Real-time migration task	migration	Task ID on the DRS console
	Backup migration task	backupMigration	Task ID on the DRS console
	Data subscription task	subscription	Task ID on the DRS console

## A.2 Status Code

- Normal

Returned Value	Description
200 OK	The results of GET and PUT operations are returned as expected.
201 Created	The results of the POST operation are returned as expected.
202 Accepted	The request has been accepted for processing.
204 No Content	Normal return

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter a username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server cannot find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server cannot be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication so that the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of a service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request. The service is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

## A.3 Error Codes

### Function Description

If the returned status code of an EPS API is **400**, the error details will also be returned. This section describes the meaning of each EPS error code.

### Error Code Structure Format

```
STATUS CODE 400
{
  "error": {
```

```
"error_code": "EPS.0008",  
  "error_msg": "Invalid enterprise project description."  
}
```

## Error Code Description

If an error code starting with **APIGW** occurs when you call an API, rectify the fault by referring to [Error Codes](#).

Status Code	Error Code	Error Message	Description	Solution
500	EPS.0000	The system is busy, please try again later.	The system is busy. Try again later.	Contact service support personnel.
500	EPS.0001	System error.	System error.	Contact technical support personnel.
400	EPS.0002	Bad request.	Invalid request from the client.	Enter correct parameters.
401	EPS.0003	Unauthorized user.	Authentication fails or the valid authentication information is not provided.	Check whether the username or password for obtaining the token is correct.
403	EPS.0004	Permission error.	The authentication information is incorrect or the service invoker does not have permissions.	Check whether the username, password, or the user permissions for obtaining the token are correct.
404	EPS.0005	Requested resources not found.	The requested resource cannot be found.	Enter a correct resource ID.
403	EPS.0006	The request is too much, try again later.	There are too many requests.	Reduce the number of concurrent requests or try again later.
400	EPS.0007	Invalid enterprise project name.	Invalid name parameter.	Enter a correct enterprise project name.
400	EPS.0008	Invalid enterprise project description.	Invalid description information.	Enter a correct description of the enterprise project.

Statu s Code	Error Code	Error Message	Description	Solution
400	EPS.00 09	The number of enterprise project exceeds the upper limit.	The number of enterprise projects reaches the limit.	The enterprise project cannot be created because the quota is used up.
409	EPS.00 10	The enterprise project name already exists.	The enterprise project name already exists.	Enter a correct enterprise project name.
400	EPS.00 11	Invalid domain ID.	Invalid domain ID.	Check the domain ID.
400	EPS.00 12	The default enterprise project cannot be " + "modified.	Failed to edit enterprise project <b>default</b> .	Do not modify enterprise project <b>default</b> .
400	EPS.00 13	Invalid action.	Invalid parameter <b>Action</b> .	Enter a correct <b>Action</b> value.
400	EPS.00 14	The disabled enterprise project cannot be modified	A disabled enterprise project cannot be modified.	Select an enabled enterprise project to modify.
400	EPS.00 15	The default enterprise project does " + "not support the operation.	Enterprise project <b>default</b> cannot be enabled or disabled.	Do not enable or disable enterprise project <b>default</b> .
400	EPS.00 16	Failed to disable the enterprise project because it contains " + "AS groups.	The enterprise project contains one or more AS groups.	Do not disable enterprise projects that contain AS groups.
400	EPS.00 17	Invalid limit.	Invalid limit value.	Enter a correct limit value.
400	EPS.00 18	Invalid offset.	Invalid offset value.	Enter a correct offset value.

Statu s Code	Error Code	Error Message	Description	Solution
500	EPS.00 19	Query timed out.	Query timed out.	The possible cause is that the ECS list query times out or the alarm query on the Cloud Eye full screen monitoring times out. Try again later or check whether the peer service is normal. If the fault persists, contact technical support.
400	EPS.00 20	Empty project list.	The projects list is empty.	Enter a project list.
400	EPS.00 21	Duplicated elements in the project list.	Duplicated elements exist in the <b>projects</b> list.	Check the project list.
400	EPS.00 22	Invalid project ID.	Invalid project ID.	Enter a correct project ID.
400	EPS.00 23	Empty resource type list.	The resource list is empty.	Enter a resource list.
400	EPS.00 24	Duplicated elements in the resource " + "type list.	Repeated elements exist in the resource list.	Check the resource list.
400	EPS.00 25	Invalid element in the resource type list.	Incorrect resource type.	Modify the resource type.
400	EPS.00 26	Invalid element in the project list.	Invalid element exists in the <b>projects</b> list.	Verify and modify the <b>projects</b> list.
400	EPS.00 27	Invalid element in the matches list.	Invalid element exists in the <b>matches</b> list.	Enter valid elements.
400	EPS.00 28	Duplicated keys in the matches list.	Duplicated keys exist in the <b>matches</b> list.	Delete the duplicated keys.
400	EPS.00 29	Invalid key in the matches list.	Invalid key exists in the <b>matches</b> list.	Enter a correct key.

<b>Status Code</b>	<b>Error Code</b>	<b>Error Message</b>	<b>Description</b>	<b>Solution</b>
400	EPS.0030	Invalid value in the matches list.	Invalid value exists in the matches list.	Enter a correct value.
400	EPS.0031	Invalid resource type.	Incorrect resource type.	Enter a correct resource type.
400	EPS.0032	Invalid resource ID.	Invalid resource ID.	Enter a correct resource ID.
400	EPS.0033	unsupported project or resource type.	Unsupported resource type or project.	Enter a correct resource type or project.
400	EPS.0034	The disabled enterprise project cannot have " + " the resources added.	Resources cannot be added to a disabled enterprise project.	Enable the enterprise project before adding resources to it or add resources to other enabled enterprise projects.
400	EPS.0035	Invalid query param of with supported region or resource type.	Invalid parameter.	Check the request parameter.
400	EPS.0036	Invalid query param of with supported " + "region or resource type.	The enterprise project cannot be disabled because there are orders that have not been completed.	The enterprise project cannot be disabled because there are orders that have not been completed.
400	EPS.0037	Failed to stop this enterprise project " + "because you have incomplete orders.	Invalid status value.	Enter a correct value of status.
400	EPS.0038	Operation failed. No project ID is allowed in Global service resource types.	Invalid parameter.	Check the request parameter.

Statu s Code	Error Code	Error Message	Description	Solution
400	EPS.00 39	You do not have permissions to perform this " + "operation. The required permission is:	You are not authorized to perform this operation.	Contact the administrator.
400	EPS.00 40	Request remoteAddr is not match.	Invalid request address.	Check the request address.
409	EPS.00 41	Conflict.	An internal conflict occurs.	Try again later.
400	EPS.00 42	The request body length is too long. The maximum length allowed is 200 KB.	The size of the request body cannot exceed 200 KB.	The size of the request body cannot exceed 200 KB.
400	EPS.00 43	Name already exists.	The enterprise project name already exists.	Enter another enterprise project name.
400	EPS.00 44	Invalid enterprise project id.	Invalid enterprise project ID.	Enter a valid enterprise project ID.
500	EPS.00 45	Method args exist null.	One or more Method input parameters are null.	Check the parameter.
500	EPS.00 46	Method return value is null.	The return value of Method is null.	Contact service support personnel.
500	EPS.00 47	Invalid namespace.	Invalid namespace.	Contact service support personnel.
500	EPS.00 48	Unexpected datasource error.	An unexpected database error occurs.	Contact service support personnel.
400	EPS.00 49	Invalid json.	Incorrect JSON format.	Contact service support personnel.

## A.4 Obtaining a Project ID

### Scenarios

A project ID is required for some URLs when an API is called. Therefore, you need to obtain a project ID in advance. Two methods are available:

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

### Obtaining a Project ID by Calling an API

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

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

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

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

### Obtaining a Project ID from the Console

To obtain a project ID from the console, perform the following operations:

1. Log in to the management console.
2. Click the username and select **My Credentials** from the drop-down list.

On the **My Credentials** page, view the project ID (value in the **Project ID** column).

## A.5 Obtaining the Domain-Level Token

```
POST https://iam.my-kualalumpur-1.myhuaweicloud.com/v3/auth/tokens
```



Content-Type: application/json

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

## A.6 IAM Error Codes

For details about IAM error codes, see in *IAM API Reference*.

# B Change History

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Released On	Description
2022-11-30	This issue is the second official release. Added: <ul style="list-style-type: none"><li>• <a href="#">Policies and Supported Actions</a></li><li>• <a href="#">IAM Error Codes</a></li></ul>
2022-08-11	This issue is the first official release.